<u>Exhibit H</u>

Applicant's Annual Reports to Shareholders for each of 2019 and 2018

Please see attached.

MetLife

Navigating life together

2018 Annual Report

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2018

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-15787

MetLife, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**13-4075851**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
200 Park Avenue, New York, N.Y.	**10166-0188**
(Address of principal executive offices)	*(Zip Code)*

(212) 578-9500

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, par value $0.01	New York Stock Exchange
Floating Rate Non-Cumulative Preferred Stock, Series A, par value $0.01	New York Stock Exchange
Depositary Shares each representing a 1/1,000th interest in a share of 5.625% Non-Cumulative Preferred Stock, Series E	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, par value $0.01

Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D, par value $0.01

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☑

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☑	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant at June 30, 2018 was approximately $43.6 billion.

At February 14, 2019, 957,270,842 shares of the registrant's common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Form 10-K incorporates by reference certain information from the registrant's definitive proxy statement for the Annual Meeting of Shareholders to be held on June 18, 2019, to be filed by the registrant with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the year ended December 31, 2018.

Table of Contents

As used in this Form 10-K, "MetLife," the "Company," "we," "our" and "us" refer to MetLife, Inc., a Delaware corporation incorporated in 1999, its subsidiaries and affiliates.

Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K, including Management's Discussion and Analysis of Financial Condition and Results of Operations, may contain or incorporate by reference information that includes or is based upon forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements give expectations or forecasts of future events. These statements can be identified by the fact that they do not relate strictly to historical or current facts. They use words and terms such as "anticipate," "estimate," "expect," "project," "intend," "plan," "believe," "will," and other words and terms of similar meaning, or are tied to future periods, in connection with a discussion of future performance. In particular, these include statements relating to future actions, prospective services or products, future performance or results of current and anticipated services or products, sales efforts, expenses, the outcome of contingencies such as legal proceedings, trends in operations and financial results.

Many factors will be important in determining the results of MetLife, Inc., its subsidiaries and affiliates. Forward-looking statements are based on our assumptions and current expectations, which may be inaccurate, and on the current economic environment, which may change. These statements are not guarantees of future performance. They involve a number of risks and uncertainties that are difficult to predict. Results could differ materially from those expressed or implied in the forward-looking statements. Risks, uncertainties, and other factors that might cause such differences include the risks, uncertainties and other factors identified in MetLife, Inc.'s filings with the U.S. Securities and Exchange Commission. These factors include: (1) difficult economic conditions, including risks relating to interest rates, credit spreads, equity, real estate, obligors and counterparties, currency exchange rates, derivatives, and terrorism and security; (2) adverse global capital and credit market conditions, which may affect our ability to meet liquidity needs and access capital, including through our credit facilities; (3) downgrades in our claims paying ability, financial strength or credit ratings; (4) availability and effectiveness of reinsurance, hedging or indemnification arrangements; (5) increasing cost and limited market capacity for statutory life insurance reserve financings; (6) the impact on us of changes to and implementation of the wide variety of laws and regulations to which we are subject; (7) regulatory, legislative or tax changes relating to our operations that may affect the cost of, or demand for, our products or services; (8) adverse results or other consequences from litigation, arbitration or regulatory investigations; (9) legal, regulatory and other restrictions affecting MetLife, Inc.'s ability to pay dividends and repurchase common stock; (10) MetLife, Inc.'s primary reliance, as a holding company, on dividends from subsidiaries to meet free cash flow targets and debt payment obligations and the applicable regulatory restrictions on the ability of the subsidiaries to pay such dividends; (11) investment losses, defaults and volatility; (12) potential liquidity and other risks resulting from our participation in a securities lending program and other transactions; (13) changes to investment valuations, allowances and impairments taken on investments, and methodologies, estimates and assumptions; (14) differences between actual claims experience and underwriting and reserving assumptions; (15) political, legal, operational, economic and other risks relating to our global operations; (16) competitive pressures, including with respect to pricing, entry of new competitors, consolidation of distributors, the development of new products by new and existing competitors, and for personnel; (17) the impact of technological changes on our businesses; (18) catastrophe losses; (19) a deterioration in the experience of the closed block established in connection with the reorganization of Metropolitan Life Insurance Company; (20) impairment of goodwill or other long-lived assets, or the establishment of a valuation allowance against our deferred income tax asset; (21) changes in assumptions related to deferred policy acquisition costs, deferred sales inducements or value of business acquired; (22) exposure to losses related to guarantees in certain products; (23) ineffectiveness of risk management policies and procedures or models; (24) a failure in our cybersecurity systems or other information security systems or our disaster recovery plans; (25) any failure to protect the confidentiality of client information; (26) changes in accounting standards; (27) our associates taking excessive risks; (28) difficulties in marketing and distributing products through our distribution channels; (29) increased expenses relating to pension and other postretirement benefit plans; (30) inability to protect our intellectual property rights or claims of infringement of others' intellectual property rights; (31) difficulties, unforeseen liabilities, asset impairments, or rating agency actions arising from business acquisitions and dispositions, joint ventures, or other legal entity reorganizations; (32) unanticipated or adverse developments that could adversely affect our expected operational or other benefits from the separation of Brighthouse Financial, Inc. and its subsidiaries; (33) the possibility that MetLife, Inc.'s Board of Directors may influence the outcome of stockholder votes through the voting provisions of the MetLife Policyholder Trust; (34) provisions of laws and our incorporation documents that may delay, deter or prevent takeovers and corporate combinations involving MetLife; and (35) other risks and uncertainties described from time to time in MetLife, Inc.'s filings with the U.S. Securities and Exchange Commission.

MetLife, Inc. does not undertake any obligation to publicly correct or update any forward-looking statement if MetLife, Inc. later becomes aware that such statement is not likely to be achieved. Please consult any further disclosures MetLife, Inc. makes on related subjects in reports to the U.S. Securities and Exchange Commission.

Note Regarding Reliance on Statements in Our Contracts

See "Exhibit Index — Note Regarding Reliance on Statements in Our Contracts" for information regarding agreements included as exhibits to this Annual Report on Form 10-K.

Part I

Item 1. Business

Index to Business

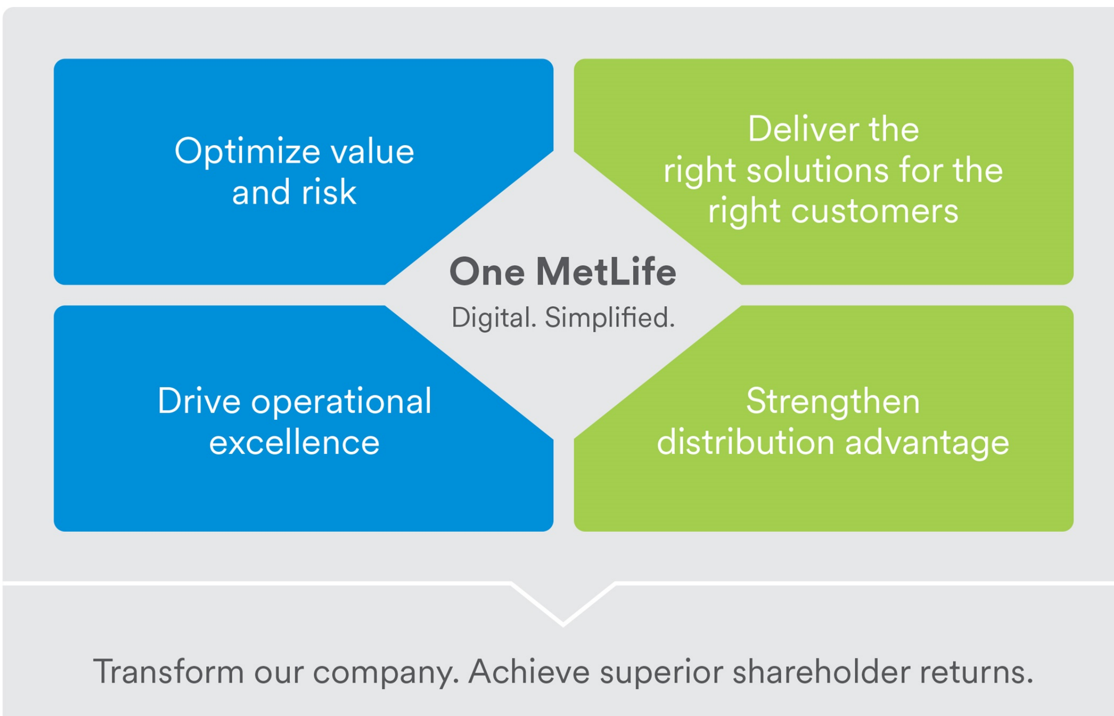
Business Overview

As used in this Form 10-K, “MetLife,” the “Company,” “we,” “our” and “us” refer to MetLife, Inc., a Delaware corporation incorporated in 1999, its subsidiaries and affiliates.

MetLife is one of the world’s leading financial services companies, providing insurance, annuities, employee benefits and asset management. We hold leading market positions in the United States, Japan, Latin America, Asia, Europe and the Middle East.

We are also one of the largest institutional investors in the United States with a $452.0 billion general account portfolio invested primarily in investment grade corporate bonds, structured finance securities, mortgage loans and U.S. Treasury and agency securities, as well as real estate and corporate equity, at December 31, 2018.

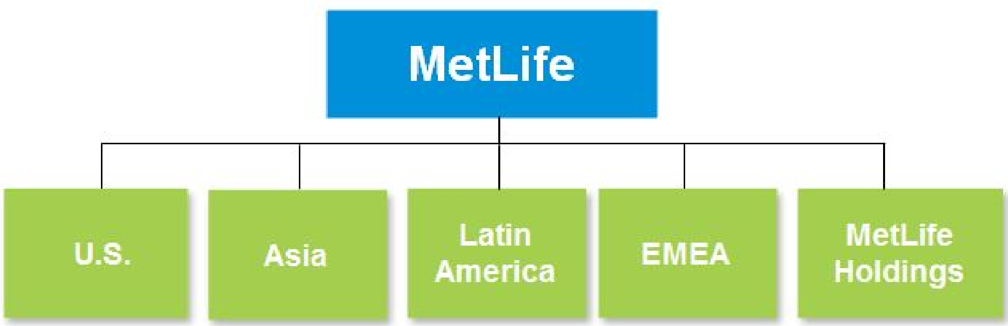
Our well-recognized brand, leading market positions, competitive and innovative product offerings and financial strength and expertise should help drive future growth and enhance shareholder value, building on a long history of fairness, honesty and integrity. We continue to pursue our refreshed enterprise strategy, focusing on transforming the Company to become more digital, driving efficiencies and innovation to achieve competitive advantage, and simplified, decreasing the costs and risks associated with our highly complex industry to customers and shareholders. One MetLife remains at the center of everything we do: collaborating, sharing best practices, and putting the enterprise first. Digital and simplified are the key enablers of our strategic cornerstones, all of which satisfy the criteria of our Accelerating Value strategic initiative by offering customers truly differentiated value propositions that allow us to establish clear competitive advantages and ultimately drive higher levels of free cash flow:



- ***Optimize value and risk***
  - *Focus on in-force and new business opportunities using Accelerating Value analysis*
  - *Optimize cash and value*
  - *Balance risk across MetLife*

- ***Drive operational excellence***
  - *Become a more efficient, high performance organization*
  - *Focus on the customer with a disciplined approach to unit cost improvement*
- ***Strengthen distribution advantage***
  - *Transform our distribution channels to drive productivity and efficiency through digital enablement, improved customer persistency and deeper customer relationships*
- ***Deliver the right solutions for the right customers***
  - *Use customer insights to deliver differentiated value propositions - products, services and experiences to win the right customers and earn their loyalty*

MetLife is organized into five segments: U.S.; Asia; Latin America; Europe, the Middle East and Africa ("EMEA"); and MetLife Holdings. In addition, the Company reports certain of its results of operations in Corporate & Other. See "— Segments and Corporate & Other" and Note 2 of the Notes to the Consolidated Financial Statements for further information on the Company's segments and Corporate & Other. Management continues to evaluate the Company's segment performance and allocated resources and may adjust related measurements in the future to better reflect segment profitability.



In the United States, we provide a variety of insurance and financial services products, including life, dental, disability, property and casualty, guaranteed interest, stable value and annuities to both individuals and groups.

Outside the United States, we provide life, medical, dental, credit and other accident & health insurance, as well as annuities, endowment and retirement & savings products to both individuals and groups. We believe these businesses will continue to grow more quickly than our United States businesses.

Revenues derived from FedEx Corporation were $6.0 billion for the year ended December 31, 2018, which represented 12% of consolidated premiums, universal life and investment-type product policy fees and other revenues. The revenue was from a single premium received for a pension risk transfer. Revenues derived from any other customer did not exceed 10% of consolidated premiums, universal life and investment-type product policy fees and other revenues for the years ended December 31, 2018, 2017 and 2016.

Segments and Corporate & Other

U.S.

Product Overview

Our businesses in the U.S. segment offer a broad range of protection products and services aimed at serving the financial needs of our customers throughout their lives. These products are sold to corporations and their respective employees, other institutions and their respective members, as well as individuals. Our U.S. segment is organized into three businesses: Group Benefits, Retirement and Income Solutions ("RIS") and Property & Casualty.

Group Benefits

We have built a leading position in the United States group insurance market through long-standing relationships with many of the largest corporate employers in the United States.

Our Group Benefits business offers life, dental, group short- and long-term disability ("LTD"), individual disability, accidental death and dismemberment ("AD&D"), vision and accident & health coverages, as well as prepaid legal plans. We also sell administrative services-only ("ASO") arrangements to some employers.

Major Products	
Term Life Insurance	Provides a guaranteed benefit upon the death of the insured for a specified time period in return for the periodic payment of premiums. Premiums may be guaranteed at a level amount for the coverage period or may be non-level and non-guaranteed. Term contracts expire without value at the end of the coverage period when the insured party is still living.
Variable Life Insurance	Provides insurance coverage through a contract that gives the policyholder flexibility in investment choices and, depending on the product, in premium payments and coverage amounts, with certain guarantees. Premiums and account balances can be directed by the policyholder into a variety of separate account investment options or directed to the Company's general account. In the separate account investment options, the policyholder bears the entire risk of the investment results. With some products, by maintaining certain premium level, policyholders may have the advantage of various guarantees that may protect the death benefit from adverse investment experience.
Universal Life Insurance	Provides insurance coverage on the same basis as variable life, except that premiums, and the resulting accumulated balances, are allocated only to the Company's general account. With some products, by maintaining a certain premium level, policyholders may have the advantage of various guarantees that may protect the death benefit from adverse investment experience.
Dental Insurance	Provides insurance and ASO arrangements that assist employees, retirees and their families in maintaining oral health while reducing out-of-pocket expenses.
Disability	For groups and individuals, benefits such as income replacement, payment of business overhead expenses or mortgage protection, in the event of the disability of the insured.
Accident & Health Insurance	Provides accident, critical illness or hospital indemnity coverage to the insured.

Retirement and Income Solutions

Our RIS business provides funding and financing solutions that help institutional customers mitigate and manage liabilities primarily associated with their qualified, nonqualified and welfare employee benefit programs using a spectrum of life and annuity-based insurance and investment products.

Major Products

Stable Value Products	• *General account guaranteed interest contracts* (“*GIC*s”) are designed to provide stable value investment options within tax-qualified defined contribution plans by offering a fixed maturity investment with a guarantee of liquidity at contract value for participant transactions. • *Separate account GIC*s are available to defined contribution plan sponsors by offering market value returns on separate account investments with a general account guarantee of liquidity at contract value. • *Private floating rate funding agreements* are generally privately-placed, unregistered investment contracts issued as general account obligations with interest credited based on the three-month London Interbank Offered Rate (“LIBOR”). These agreements are used for money market funds, securities lending cash collateral portfolios and short-term investment funds.
Pension Risk Transfers	*General account* and *separate account annuities* are offered in connection with defined benefit pension plans which include single premium buyouts allowing for full or partial transfers of pension liabilities. • *General account annuities* include nonparticipating group contract benefits purchased for retired employees or active employees covered under terminating or ongoing pension plans. • *Separate account annuities* include both participating and non-participating group contract benefits. Participating contract benefits are purchased for retired, terminated, or active employees covered under active or terminated pension plans. The assets supporting the guaranteed benefits for each contract are held in a separate account, however, the Company fully guarantees all benefit payments. Non-participating contracts have economic features similar to our general account product, but offer the added protection of an insulated separate account. Under accounting principles generally accepted in the United States of America (“GAAP”), these annuity contracts are treated as general account products.
Institutional Income Annuities	General account contracts that are guaranteed payout annuities purchased for employees upon retirement or termination of employment. They can be life or non-life contingent non-participating contracts which do not provide for any loan or cash surrender value and, with few exceptions, do not permit future considerations.
Tort Settlements	• *Structured settlement annuities* are customized annuities designed to serve as an alternative to a lump sum payment in a lawsuit initiated because of personal injury, wrongful death, or a workers' compensation claim or other claim for damages. Surrenders are generally not allowed, although commutations are permitted in certain circumstances. Guaranteed payments consist of life contingent annuities, term certain annuities and lump sums.
Capital Markets Investment Products	• *Funding agreement-backed notes* are part of a medium term note program, under which funding agreements are issued to a special-purpose trust that issues marketable notes in U.S. dollars or foreign currencies. The proceeds of these note issuances are used to acquire a funding agreement with matching interest and maturity payment terms from Metropolitan Life Insurance Company (“MLIC”). The notes are underwritten and marketed by major investment banks' broker-dealer operations and are sold to institutional investors. • *Funding agreement-backed commercial paper* is issued by a special purpose limited liability company which deposits the proceeds under a master funding agreement issued to it by MLIC. The commercial paper is issued in U.S. dollars or foreign currencies, receives the same short-term credit rating as MLIC and is marketed by major investment banks' broker-dealer operations. • Through the Federal Home Loan Bank (“FHLB”) advance program, certain of our insurance subsidiaries are members of regional FHLBs and issue *funding agreements* to their respective FHLBs. Through the Federal Agricultural Mortgage Corporation (“Farmer Mac”) program, MLIC has issued funding agreements to a subsidiary of Farmer Mac.
Other Products and Services	Specialized life insurance products and funding agreements designed specifically to provide solutions for funding postretirement benefits and company-, bank- or trust-owned life insurance used to finance nonqualified benefit programs for executives.

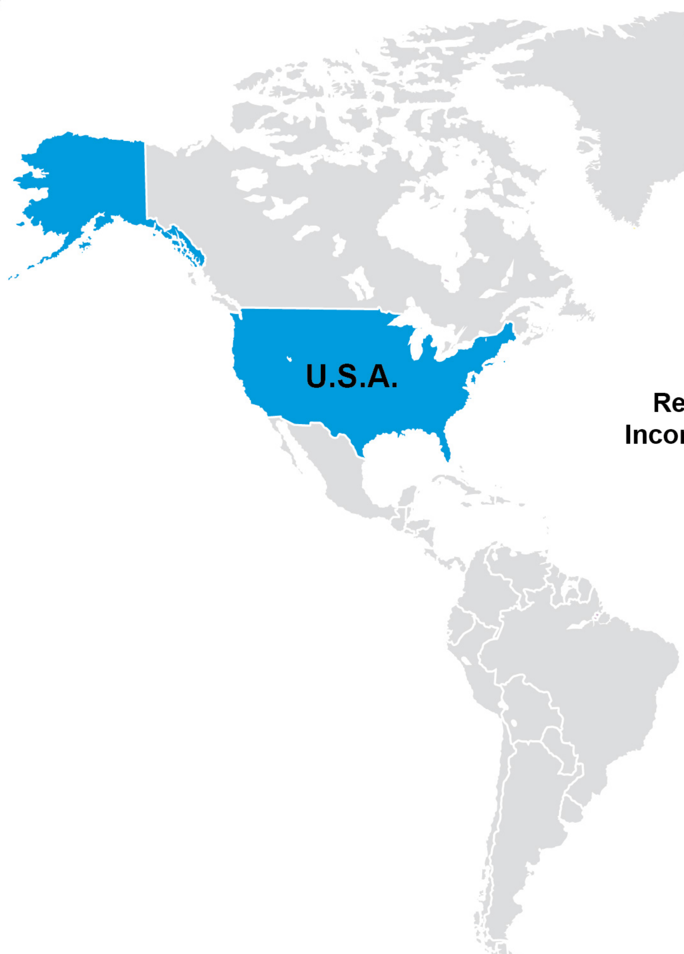
Property & Casualty

Our Property & Casualty business offers personal and commercial lines of property and casualty insurance, including private passenger automobile, homeowners' and personal excess liability insurance. In addition, we offer to small business owners property, liability and business interruption insurance.

Major Products

Personal Auto Insurance	Provides coverage for private passenger automobiles, utility automobiles and vans, motorcycles, motor homes, antique or classic automobiles, trailers, liability, uninsured motorist, no fault or personal injury protection, as well as collision and comprehensive insurance.
Homeowners' Insurance	Provides protection for homeowners, renters, condominium owners and residential landlords against losses arising out of damage to dwellings and contents from a wide variety of perils, as well as coverage for liability arising from ownership or occupancy.
Commercial Multi-Peril and Commercial Auto Insurance	Provides a broad package of property and liability coverages for small and medium sized apartment buildings, offices, and retail stores, as well as for coverage for motor vehicles owned by a business engaged in commerce that protects the insured against financial loss.

Operations



U.S. Sales Distribution Highlights at December 31, 2018

Group Benefits	• 350 marketing representatives
Retirement and Income Solutions	• 8 sales offices in the U.S.
Property & Casualty	• 4,200 independent agents • 320 property & casualty specialists • 400 call center sales associates

Sales Distribution

In the U.S., we market our products and services through various distribution channels. Our Group Benefits and RIS products are sold via sales forces primarily comprised of MetLife employees. Personal lines property and casualty insurance products are directly marketed to employees at their employer's worksite. Personal and commercial lines property and casualty insurance products are also marketed and sold to individuals and small business owners by independent agents and property and casualty specialists through a direct marketing channel.

Group Benefits Distribution

We distribute Group Benefits products and services through a sales force that is segmented by the size of the target customer. Marketing representatives sell either directly to corporate and other group customers or through an intermediary, such as a broker or consultant. In addition, voluntary products are sold by specialists. Employers have been emphasizing voluntary products and, as a result, we have increased our focus on communicating and marketing to employees in order to further foster sales of those products.

We have entered into several operating joint ventures and other arrangements with third parties to expand opportunities to market and distribute Group Benefits products and services. We also sell our Group Benefits products and services through sponsoring organizations and affinity groups and provide life and dental coverage to certain employees of the U.S. Government.

Retirement and Income Solutions Distribution

We distribute RIS products and services through dedicated sales teams and relationship managers. We may sell products directly to benefit plan sponsors and advisors or through brokers, consultants or other intermediaries. In addition, these sales professionals work with individual, group and global distribution areas to better reach and service customers, brokers, consultants and other intermediaries.

Property & Casualty Distribution

We market and sell Property & Casualty products through independent agents, property and casualty specialists and brokers.

We are a leading provider of personal lines property and casualty insurance products offered to employees at their employer's worksite. Marketing representatives market personal lines property and casualty insurance products to employers through a variety of means, including broker referrals and cross-selling to group customers. Once permitted by the employer, MetLife commences marketing efforts to employees, enabling them to purchase coverage and to request payroll deduction over the telephone.

We also offer commercial Property & Casualty products sold primarily through our network of independent agents and group broker relationships.

Asia

Product Overview

Our Asia segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees.

Major Products	
Life Insurance	Provides whole and term life, endowments, universal and variable life, as well as group life products.
Accident & Health Insurance	Provides a full range of accident & health products, including medical reimbursement, hospitalization, cancer, critical illness, disability, income protection, personal accident coverage and group health products.
Retirement and Savings	Provides both fixed and variable annuities, as well as regular savings products.

Operations

We operate in 10 jurisdictions throughout Asia, with our largest operation in Japan. We also have an innovation center in Singapore and a data analytics center of excellence in Malaysia.

Asia Sales Distribution Highlights at December 31, 2018

Japan	• 4,200 career agents • 6,400 independent agencies • 120 bancassurance relationships • 110 direct marketing sponsors
Rest of Asia	• 49,300 career agents and agency managers (including 11,400 agents and managers related to our operating joint venture in China and 3,700 agents and managers in Korea) • Strong direct platform and 43 digital partners in China • Bancassurance including joint ventures in Vietnam, Malaysia and India

Sales Distribution

Our Asia operations are geographically diverse encompassing both developed and emerging markets. We market our products and services through digitally-enabled multi-channel distribution, including career and independent agencies, bancassurance, direct marketing and e-commerce, brokers and other third-party distribution channels.

Digitally-enabled face-to-face channels continue to be core to our business in Japan, but other distribution channels, including bancassurance and direct marketing, are critical to Japan's overall distribution strategy. Our Japan operation's competitive position in bancassurance is based on robust distribution relationships with Japan's mega banks, trust banks and various regional banks. The direct marketing channel focuses on providing accident & health solutions to customers using traditional television and print media, as well as e-commerce.

Outside of Japan, our distribution strategies vary by market and leverage a combination of career and independent agencies, bancassurance and direct marketing (including inbound and outbound telemarketing, online lead generation and sales). Our expertise in direct marketing is supported by our proprietary data analytics center of excellence in Malaysia that generates customer insights and improves lead management. In select markets, we use independent brokers and an employee sales force to sell group products.

Latin America

Product Overview

Our Latin America segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees.

Major Products	
Life Insurance	Provides universal, variable and term life products. For a description of these products, see "— U.S. — Product Overview — Group Benefits."
Retirement and Savings	Provides fixed annuities and pension products. Fixed annuities provide for both asset accumulation and asset distribution needs. Deposits made into deferred annuity contracts are allocated to the Company's general account and are credited with interest at rates we determine, subject to specified minimums. Fixed income annuities provide a guaranteed monthly income for a specified period of years and/or for the life of the annuitant. Our savings oriented pension products are offered under a mandatory privatized social security system. See Note 3 of the Notes to the Consolidated Financial Statements for information about the disposition of MetLife Afore, S.A. de C.V. ("MetLife Afore"), the Company's pension fund management business in Mexico.
Accident & Health Insurance	Provides group and individual major medical, accidental, and supplemental health products, including AD&D, hospital indemnity, medical reimbursement, and medical coverage for serious medical conditions, as well as dental products.
Credit Insurance	Provides policies designed to fulfill certain loan obligations in the event of the policyholder's death.

Operations

In Latin America, our largest operations are in Mexico and Chile.

Latin America Sales Distribution Highlights at December 31, 2018

Latin America	• 2,600 captive agents • 65 sponsors • 1,200 telesales representatives • 3,300 active brokers • 3,900 worksite marketing agents in Mexico

Sales Distribution

In Latin America, we market our products and services through a multi-channel distribution strategy which varies by geographic region and stage of market development.

The region has an exclusive and captive agency distribution network which also sells a variety of individual life, accident & health, and pension products. In the direct marketing channel, we work with sponsors and telesales representatives selling mainly accident & health and individual life products directly to consumers. We currently work with active brokers with sales of group and individual life, accident & health, group medical, dental and pension products, and worksite marketing.

EMEA

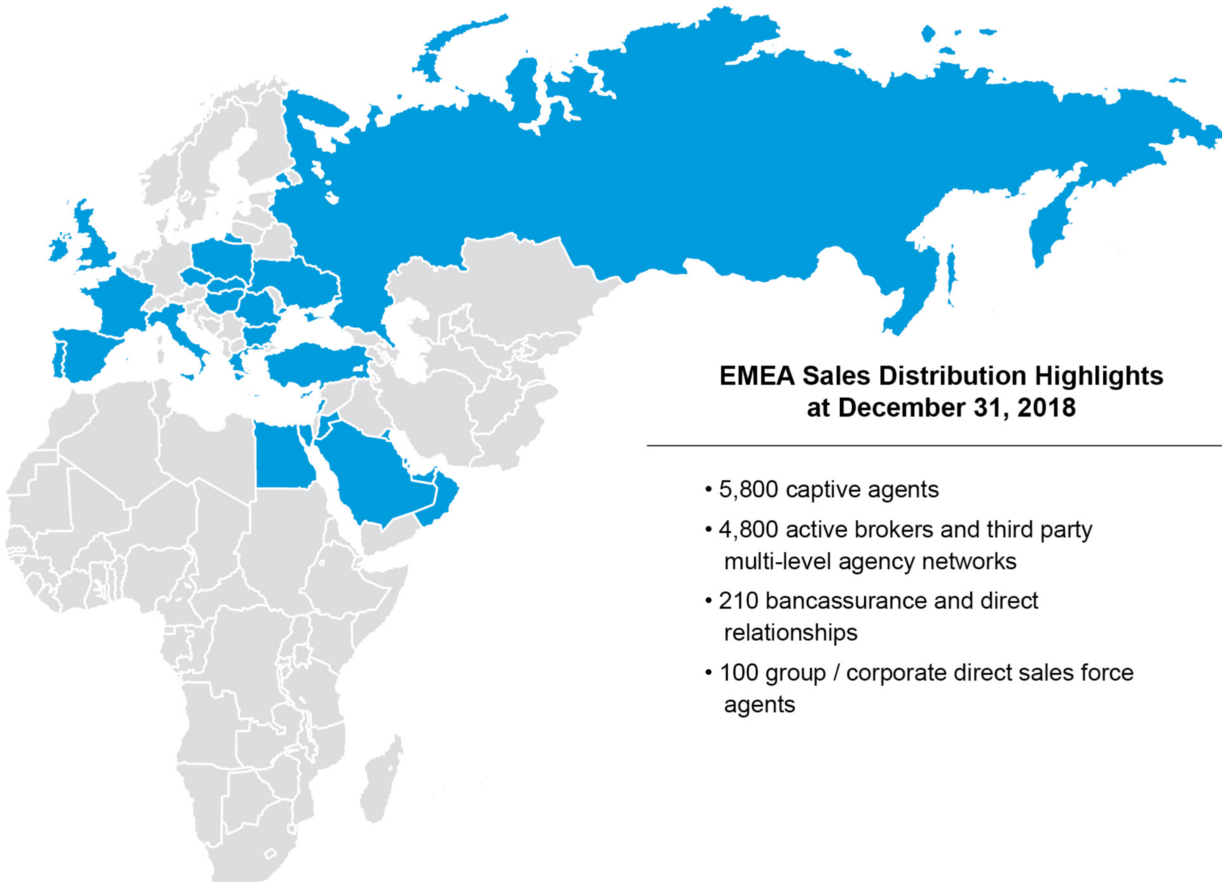
Product Overview

Our EMEA segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees.

Major Products	
Life Insurance	Provides both traditional and non-traditional life insurance products, such as whole and term life, endowments and variable life products, as well as group term life programs in most markets.
Accident & Health Insurance	Provides individual and group personal accident and supplemental health products, including AD&D, hospital indemnity, scheduled medical reimbursement plans, and coverage for serious medical conditions. In addition, we provide individual and group major medical coverage in select markets.
Retirement and Savings	Provides fixed annuities and pension products, including group pension programs in select markets. In Romania, we provide through a specialized pension company a savings oriented pension product under the mandatory privatized social security system.
Credit Insurance	Provides policies designed to fulfill certain loan obligations in the event of the policyholder's death.

Operations

We operate in many countries across EMEA, with our largest operations in the Gulf region, Poland, United Kingdom ("U.K.") and Turkey.



EMEA Sales Distribution Highlights at December 31, 2018

- 5,800 captive agents
- 4,800 active brokers and third party multi-level agency networks
- 210 bancassurance and direct relationships
- 100 group / corporate direct sales force agents

MetLife, Inc. operates in 26 countries across EMEA, including Bahrain, Bulgaria, Cyprus, the Czech Republic, Egypt, France, Greece, Hungary, Ireland, Italy, Jordan, Kuwait, Lebanon, Oman, Poland, Portugal, Qatar, Romania, Russia, Saudi Arabia, Slovakia, Spain, Turkey, Ukraine, the United Arab Emirates and the United Kingdom.

Sales Distribution

Our EMEA operations are geographically diverse encompassing both developed and emerging markets. We hold leading positions in several markets in the Middle East and Central & Eastern Europe, and focus on attractive niche segments in more developed markets. Emerging markets represent a significant part of the region's overall earnings. Our businesses in EMEA employ a multi-channel distribution strategy, including captive and independent agency, bancassurance and direct-to-consumer.

MetLife Holdings

Product Overview

Our MetLife Holdings segment consists of operations relating to products and businesses that we no longer actively market in the United States, such as variable, universal, term and whole life insurance, variable, fixed and index-linked annuities, and long-term care insurance, as well as the assumed variable annuity guarantees from our former operating joint venture in Japan.

Major Products	
Variable, Universal and Term Life Insurance	These life products are similar to those offered by our Group Benefits business, except that these products were historically marketed to individuals through various retail distribution channels. For a description of these products, see "— U.S. — Product Overview — Group Benefits."
Whole Life Insurance	Provides a benefit upon the death of the insured in return for the periodic payment of a fixed premium over a predetermined period. Whole life insurance includes policies that provide a participation feature in the form of dividends. Policyholders may receive dividends in cash, or apply them to increase death benefits, increase cash values available upon surrender or reduce the premiums required to maintain the contract in-force.
Variable Annuities	Provides for both asset accumulation and asset distribution needs. Variable annuities allow the contractholder to allocate deposits into various investment options in a separate account, as determined by the contractholder. In certain variable annuity products, contractholders may also choose to allocate all or a portion of their account to the Company's general account and are credited with interest at rates we determine, subject to specified minimums. Contractholders may also elect certain minimum death benefit and minimum living benefit guarantees for which additional fees are charged and where asset allocation restrictions may apply.
Fixed and Indexed-Linked Annuities	Fixed annuities provide for both asset accumulation and asset distribution needs. Deposits made into deferred annuity contracts are allocated to the Company's general account and are credited with interest at rates we determine, subject to specified minimums. Fixed income annuities provide a guaranteed monthly income for a specified period of years and/or for the life of the annuitant. Additionally, the Company has issued indexed-linked annuities which allow the contractholder to participate in returns from equity indices.
Long-term Care	Provides protection against the potentially high costs of long-term health care services. Generally pay benefits to insureds who need assistance with activities of daily living or have a cognitive impairment.

Corporate & Other

Overview

Corporate & Other contains the excess capital, as well as certain charges and activities, not allocated to the segments, including external integration and disposition costs, internal resource costs for associates committed to acquisitions and dispositions, enterprise-wide strategic initiative restructuring charges and various start-up and developing businesses (including the investment management business through which the Company, as a manager of assets such as global fixed income and real estate, provides differentiated investment solutions to institutional investors worldwide). Additionally, Corporate & Other includes run-off businesses. Corporate & Other also includes interest expense related to the majority of the Company's outstanding debt, as well as expenses associated with certain legal proceedings and income tax audit issues. In addition, Corporate & Other includes the elimination of intersegment amounts, which generally relate to affiliated reinsurance, investment expenses and intersegment loans, which bear interest rates commensurate with related borrowings. As a result of the separation of Brighthouse, for the year ended 2016, Corporate & Other includes corporate overhead costs previously allocated to the former Brighthouse Financial segment. See Note 3 of the Notes to the Consolidated Financial Statements.

Policyholder Liabilities

We establish, and carry as liabilities, actuarially determined amounts that are calculated to meet policy obligations when a policy matures or is surrendered, an insured dies or becomes disabled or upon the occurrence of other covered events, or to provide for future annuity payments. Our liabilities for future policy benefits and claims are established based on estimates by actuaries of how much we will need to pay for future benefits and claims. For life insurance and annuity products, we calculate these liabilities based on assumptions and estimates, including estimated premiums to be received over the assumed life of the policy, the timing of the event covered by the insurance policy, the amount of benefits or claims to be paid and the investment returns on the investments we make with the premiums we receive. We establish liabilities for claims and benefits based on assumptions and estimates of losses and liabilities incurred. Amounts for actuarial liabilities are computed and reported on the consolidated financial statements in conformity with GAAP. For more details on policyholder liabilities see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Summary of Critical Accounting Estimates — Liability for Future Policy Benefits" and "Management's Discussion and Analysis of Financial Condition and Results of Operations — Policyholder Liabilities."

Pursuant to applicable insurance laws and regulations, MetLife, Inc.'s insurance subsidiaries, including affiliated captive reinsurers, establish statutory reserves, reported as liabilities, to meet their obligations on their respective policies. These statutory reserves are established in amounts sufficient to meet policy and contract obligations, when taken together with expected future premiums and interest at assumed rates. Statutory reserves and actuarial liabilities for future policy benefits generally differ based on accounting guidance.

U.S. state insurance laws and regulations require certain MetLife entities to submit to superintendents of insurance, with each annual report, an opinion and memorandum of a qualified actuary that the statutory reserves and related actuarial amounts recorded in support of specified policies and contracts, and the assets supporting such statutory reserves and related actuarial amounts, make adequate provision for their statutory liabilities with respect to these obligations.

Insurance regulators in many of the non-U.S. jurisdictions in which we operate require certain MetLife entities to prepare a sufficiency analysis of the reserves presented in the locally required regulatory financial statements, and to submit that analysis to the regulatory authorities. See "— Regulation — Insurance Regulation — Policy and Contract Reserve Adequacy Analysis."

Underwriting and Pricing

Our Global Risk Management Department ("GRM") contains a dedicated unit, the primary responsibility of which is the development of product pricing standards and independent pricing and underwriting oversight for MetLife's insurance businesses. Further important controls around management of underwriting and pricing processes include regular experience studies to monitor assumptions against expectations, formal new product approval processes, periodic updates to product profitability studies and the use of reinsurance to manage our exposures, as appropriate. See "— Reinsurance Activity."

Underwriting

Underwriting generally involves an evaluation of applications by a professional staff of underwriters and actuaries, who determine the type and the amount of insurance risk that we are willing to accept. We employ detailed underwriting policies, guidelines and procedures designed to assist the underwriter to properly assess and quantify such risks before issuing policies to qualified applicants or groups.

Insurance underwriting considers not only an applicant's medical history, but also other factors such as financial profile, foreign travel, vocations and alcohol, drug and tobacco use. Group underwriting generally evaluates the risk characteristics of each prospective insured group, although with certain voluntary products and for certain coverages, members of a group may be underwritten on an individual basis. We generally perform our own underwriting; however, certain policies are reviewed by intermediaries under guidelines established by us. Generally, we are not obligated to accept any risk or group of risks from, or to issue a policy or group of policies to, any employer or intermediary. Requests for coverage are reviewed on their merits and a policy is not issued unless the particular risk or group has been examined and approved in accordance with our underwriting guidelines.

The underwriting conducted by our remote underwriting offices and intermediaries, as well as our corporate underwriting office, is subject to periodic quality assurance reviews to maintain high standards of underwriting and consistency. Such offices are also subject to periodic external audits by reinsurers with whom we do business.

We have established oversight of the underwriting process that facilitates quality sales and serves the needs of our customers, while supporting our financial strength and business objectives. Our goal is to achieve the underwriting, mortality and morbidity levels reflected in the assumptions in our product pricing. This is accomplished by determining and establishing underwriting policies, guidelines, philosophies and strategies that are competitive and suitable for the customer, the agent and us.

For our Property & Casualty business, our underwriting function has six principal aspects: evaluating potential voluntary and worksite employer accounts and independent agencies; establishing guidelines for the binding of risks; reviewing coverage bound by agents; underwriting potential insureds, on a case by case basis, presented by agents outside the scope of their binding authority; pursuing information necessary in certain cases to enable issuance of a policy within our guidelines; and ensuring that renewal policies continue to be written at rates commensurate with risk. Subject to very few exceptions, agents in each of the distribution channels have binding authority for risks which fall within our published underwriting guidelines. Risks falling outside the underwriting guidelines may be submitted for approval to the underwriting department; alternatively, agents in such a situation may call the underwriting department to obtain authorization to bind the risk themselves. In most states, we generally have the right within a specified period (usually the first 60 days) to cancel any policy.

We continually review our underwriting guidelines in light of applicable regulations and to ensure that our policies remain competitive and supportive of our marketing strategies and profitability goals.

Pricing

Product pricing reflects our pricing standards, which are consistent for our global businesses. GRM, as well as regional finance and product teams, are responsible for pricing and oversight for all of our insurance businesses. Product pricing is based on the expected payout of benefits calculated through the use of assumptions for mortality, morbidity, expenses, persistency and investment returns, as well as certain macroeconomic factors, such as inflation. Investment-oriented products are priced based on various factors, which may include investment returns, expenses, persistency and optionality and possible variability of results. For certain products, pricing may include prospective and retrospective experience rating features. Prospective experience rating involves the evaluation of past experience for the purpose of determining future premium rates and we bear all prior year gains and losses. Retrospective experience rating also involves the evaluation of past experience for the purpose of determining the actual cost of providing insurance for the customer; however, the contract includes certain features that allow us to recoup certain losses or distribute certain gains back to the policyholder based on actual prior years' experience.

Rates for group benefit products are based on anticipated earnings and expenses for the book of business being underwritten. Renewals are generally reevaluated annually or biannually and are re-priced to reflect actual experience on such products. Products offered by RIS are priced on demand. Pricing reflects expected investment returns, as well as mortality, longevity and expense assumptions appropriate for each product. This business is generally nonparticipating and illiquid, as policyholders have few or no options or contractual rights to cash values.

Rates for individual life insurance products are highly regulated and generally must be approved by the regulators of the jurisdictions in which the product is sold. Generally, such products are renewed annually and may include pricing terms that are guaranteed for a certain period of time. Individual disability income products are based on anticipated results for the occupation being underwritten. Fixed and variable annuity products are also highly regulated and approved by the respective regulators. Such products generally include penalties for early withdrawals and policyholder benefit elections to tailor the form of the product's benefits to the needs of the opting policyholder. We periodically reevaluate the costs associated with such options and will periodically adjust pricing levels on our guarantees. Further, from time to time, we may also reevaluate the type and level of guarantee features currently being offered.

For our Property & Casualty business, our ability to set and change rates is subject to regulatory oversight. Rates for our major lines of property and casualty insurance are based on our proprietary database, rather than relying on rating bureaus. We determine prices in part from a number of variables specific to each risk. The pricing of personal lines insurance products takes into account, among other things, the expected frequency and severity of losses, the costs of providing coverage (including the costs of acquiring policyholders and administering policy benefits and other administrative and overhead costs such as reinsurance), competitive factors and profit considerations. The major pricing variables for personal lines insurance include characteristics of the insured property, such as age, make and model or construction type, as well as characteristics of the insureds, such as driving record and loss experience, and the insured's personal financial management. As a condition of our license to do business in each state, we, like all other personal lines insurers, are required to write or share the cost of private passenger automobile and homeowners insurance for higher risk individuals who would otherwise be unable to obtain such insurance. This "involuntary" market, also called the "shared market," is governed by the applicable laws and regulations of each state, and policies written in this market are generally written at rates higher than standard rates and typically afford less coverage.

We continually review our pricing guidelines in light of applicable regulations and to ensure that our policies remain competitive and supportive of our marketing strategies and profitability goals.

Reinsurance Activity

We enter into reinsurance agreements primarily as a purchaser of reinsurance for our various insurance products and also as a provider of reinsurance for some insurance products issued by third parties. We participate in reinsurance activities in order to limit losses, minimize exposure to significant risks, and provide additional capacity for future growth. We enter into various agreements with reinsurers that cover individual risks, group risks or defined blocks of business, primarily on a coinsurance, yearly renewable term, excess or catastrophe excess basis. These reinsurance agreements spread risk and minimize the effect of losses. The extent of each risk retained by us depends on our evaluation of the specific risk, subject, in certain circumstances, to maximum retention limits based on the characteristics of coverages. We also cede first dollar mortality risk under certain contracts. In addition to reinsuring mortality risk, we reinsure other risks, as well as specific coverages. We obtain reinsurance for capital requirement purposes and also when the economic impact of the reinsurance agreement makes it appropriate to do so.

Under the terms of the reinsurance agreements, the reinsurer agrees to reimburse us for the ceded amount in the event a claim is paid. Cessions under reinsurance agreements do not discharge our obligations as the primary insurer. In the event that reinsurers do not meet their obligations under the terms of the reinsurance agreements, reinsurance recoverable balances could become uncollectible.

We reinsure our business through a diversified group of well-capitalized, highly rated reinsurers. We analyze recent trends in arbitration and litigation outcomes in disputes, if any, with our reinsurers. We monitor ratings and evaluate the financial strength of our reinsurers by analyzing their financial statements. In addition, the reinsurance recoverable balance due from each reinsurer is evaluated as part of the overall monitoring process. Recoverability of reinsurance recoverable balances is evaluated based on these analyses. We generally secure large reinsurance recoverable balances with various forms of collateral, including secured trusts, funds withheld accounts and irrevocable letters of credit. Additionally, we enter into reinsurance agreements for risk and capital management purposes with several affiliated captive reinsurers. Captive reinsurers are affiliated insurance companies licensed under specific provisions of insurance law of their respective jurisdictions, such as a Special Purpose Financial Captive law adopted by several states including Vermont and South Carolina, and have a very narrow business plan that specifically restricts the majority or all of their activity to reinsuring business from their affiliates. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Capital — Affiliated Captive Reinsurance Transactions."

U.S.

For our Group Benefits business, we generally retain most of the risk and only cede particular risk on certain client arrangements. The majority of our reinsurance activity within this business relates to the following client agreements:

- Employer sponsored captive programs: through these programs, employers buy a group life insurance policy with the condition that a portion of the risk is reinsured back to a captive insurer sponsored by the client.
- Risk-sharing agreements: through these programs, clients require that we reinsure a portion of the risk back to third parties, such as minority-owned reinsurers.
- Multinational pooling: through these agreements, employers buy many group insurance policies which are aggregated in a single insurer via reinsurance.

The risks ceded under these agreements are generally quota shares of group life and disability policies. The cessions vary from 50% to 90% of all the risks of the policies.

For our Property & Casualty business, we purchase reinsurance to manage our exposure to large losses (primarily catastrophe losses) and to protect statutory surplus. We cede losses and premiums based upon the exposure of the policies subject to reinsurance. To manage exposure to large property and casualty losses, we purchase property catastrophe, casualty and property per risk excess of loss reinsurance protection.

For our RIS business, we have periodically engaged in reinsurance activities on an opportunistic basis. There were no such transactions during the periods presented.

Asia, Latin America and EMEA

For certain of our life insurance products, we currently reinsure risks in excess of $5 million to external reinsurers on a yearly renewable term basis.

For selected large corporate clients, we reinsure group employee benefits or credit insurance business with various client-affiliated reinsurance companies, covering policies issued to the employees or customers of the clients. Additionally, we cede and assume risk with other insurance companies when either company requires a business partner with the appropriate local licensing to issue certain types of policies in certain jurisdictions. In these cases, the assuming company typically underwrites the risks, develops the products and assumes most or all of the risk.

We also have reinsurance agreements in-force that reinsure a portion of the living and death benefit guarantees issued in connection with variable annuity products. Under these agreements, we pay reinsurance fees associated with the guarantees collected from policyholders, and receive reimbursement for benefits paid or accrued in excess of account values, subject to certain limitations.

We may also reinsure certain risks with external reinsurers depending upon the nature of the risk and local regulatory requirements.

MetLife Holdings

For our life products, we have historically reinsured the mortality risk primarily on an excess of retention basis or on a quota share basis. In addition to reinsuring mortality risk as described above, we reinsure other risks, as well as specific coverages. Placement of reinsurance is done primarily on an automatic basis and also on a facultative basis for risks with specified characteristics. We also assume portions of the risk associated with certain whole life policies issued by a former affiliate and reinsure certain term life policies and universal life policies with secondary death benefit guarantees to such former affiliate.

For our other products, we have a reinsurance agreement in-force to reinsure the living and death benefit guarantees issued in connection with certain variable annuity guarantees from our former operating joint venture in Japan. Under this agreement, we receive reinsurance fees associated with the guarantees collected from policyholders, and provide reimbursement for benefits paid or accrued in excess of account values, subject to certain limitations.

Catastrophe Coverage

We have exposure to catastrophes which could contribute to significant fluctuations in our results of operations. For the U.S. and EMEA, we purchase catastrophe coverage to reinsure risks issued within territories that we believe are subject to the greatest catastrophic risks. For our other segments, we use excess of retention and quota share reinsurance agreements to provide greater diversification of risk and minimize exposure to larger risks. Excess of retention reinsurance agreements provide for a portion of a risk to remain with the direct writing company and quota share reinsurance agreements provide for the direct writing company to transfer a fixed percentage of all risks of a class of policies.

Reinsurance Recoverables

For information regarding ceded reinsurance recoverable balances, included in premiums, reinsurance and other receivables on the consolidated balance sheets, see Note 6 of the Notes to the Consolidated Financial Statements.

Regulation

Overview

In the United States, our life insurance companies are regulated primarily at the state level by state insurance regulators, with some products and services also subject to federal regulation. MetLife, Inc. and its U.S. insurance subsidiaries are subject to regulation under the insurance holding company laws of various U.S. jurisdictions. Furthermore, some of MetLife's operations, products and services are subject to consumer protection laws, securities, broker-dealer and investment adviser regulations, environmental and unclaimed property laws and regulations, and to the Employee Retirement Income Security Act of 1974 ("ERISA").

Outside of the United States, our insurance operations are principally regulated by insurance regulatory authorities in the jurisdictions in which they are located or operate. In addition, our investment and pension companies outside of the U.S. are subject to oversight by the relevant securities, pension and other authorities of the jurisdictions in which the companies operate. Our non-U.S. insurance businesses are also subject to current and developing solvency regimes which impose various capital and other requirements. Additionally, we may be subject in the future to enhanced capital standards, supervision and additional requirements of other international and global regulatory initiatives.

We expect the scope and extent of regulation and regulatory oversight generally to continue to increase. The regulatory environment and changes in laws in the jurisdictions in which we operate could have a material adverse effect on our results of operations.

Insurance Regulation

Insurance regulation generally aims at supervising and regulating insurers, with the goal of protecting policyholders and ensuring that insurance companies remain solvent. Insurance regulators have increasingly sought information about the potential impact of activities in holding company systems as a whole, and some jurisdictions have adopted laws and regulations enhancing "group-wide" supervision, including as developed through the National Association of Insurance Commissioners' ("NAIC") Solvency Modernization Initiative. See "— NAIC" for information regarding group-wide supervision.

Each of MetLife's insurance subsidiaries is licensed and regulated in each jurisdiction where it conducts insurance business. The extent of such regulation varies, but most jurisdictions have laws and regulations governing the financial aspects and business conduct of insurers. Insurance laws, including state laws in the United States, grant insurance regulatory authorities broad administrative powers with respect to, among other things:

- licensing companies and agents to transact business;
- calculating the value of assets to determine compliance with statutory requirements;
- mandating certain insurance benefits;
- regulating certain premium rates;
- reviewing and approving certain policy forms, including required policyholder disclosures;
- regulating unfair trade and claims practices, including through the imposition of restrictions on marketing and sales practices, distribution arrangements and payment of inducements, and identifying and paying to the states or local authorities benefits and other property that is not claimed by the owners;
- regulating advertising;
- protecting privacy;
- establishing statutory capital and reserve requirements and solvency standards;
- specifying the conditions under which a ceding company can take credit for reinsurance in its statutory financial statements (i.e., reduce its reserves by the amount of reserves ceded to a reinsurer);
- fixing maximum interest rates on insurance policy loans and minimum rates for guaranteed crediting rates on life insurance policies and annuity contracts;
- adopting and enforcing suitability standards with respect to the sale of annuities and other insurance products;
- approving changes in control of insurance companies;
- restricting the payment of dividends and other transactions between affiliates; and
- regulating the types and amounts of investments.

Each insurance subsidiary is required to file reports, generally including detailed annual financial statements, with insurance regulatory authorities in each of the jurisdictions in which it does business, and its operations and accounts are subject to periodic examination by such authorities. These subsidiaries must also file, and in many jurisdictions and in some lines of insurance obtain regulatory approval for, rules, rates and forms relating to the insurance written in the jurisdictions in which they operate.

Insurance and securities regulatory authorities and other law enforcement agencies and attorneys general from time to time make inquiries regarding compliance by MetLife, Inc. and its insurance subsidiaries with insurance, securities and other laws and regulations regarding the conduct of our insurance and securities businesses. We cooperate with such inquiries and take corrective action when warranted. See Note 20 of the Notes to the Consolidated Financial Statements.

U.S. Federal Initiatives

Although the insurance business in the United States is primarily regulated by the states, federal initiatives often have an impact on our business in a variety of ways. From time to time, federal measures are proposed that may significantly affect the insurance business. Impacted areas include financial services regulation, securities regulation, derivatives regulation, pension regulation, health care regulation, privacy, tort reform legislation and taxation. In addition, various forms of direct and indirect federal regulation of insurance have been proposed from time to time, including proposals for the establishment of an optional federal charter for insurance companies. See "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition."

The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") effected the most far-reaching overhaul of financial regulation in the United States in decades, including the creation of the Financial Stability Oversight Council ("FSOC"), which was given the authority to designate certain financial companies as non-bank systemically important financial institutions ("non-bank SIFI") subject to supervision by the Board of Governors of the Federal Reserve System ("Federal Reserve Board") and the Federal Reserve Bank of New York (collectively with the Federal Reserve Board, the "Federal Reserve"). We are not able to predict with certainty whether or what changes may be made to Dodd-Frank in the future or whether such changes would have a material effect on our business operations. As such, we cannot currently identify all of the risks or opportunities, if any, that may be posed to our businesses as a result of changes to, or legislative replacements for, Dodd-Frank. See "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition."

Dodd-Frank also established the Federal Insurance Office within the Department of the Treasury, which has the authority to participate in the negotiations of international insurance agreements with foreign regulators for the U.S., as well as to collect information about the insurance industry and recommend prudential standards. While not having a general supervisory or regulatory authority over the business of insurance, the director of this office performs various functions with respect to insurance, including serving as a non-voting member of the FSOC and making recommendations to the FSOC regarding insurers to be designated for more stringent regulation.

Under the provisions of Dodd-Frank relating to the resolution or liquidation of certain types of financial institutions, if MetLife, Inc. or another financial institution were to become insolvent or were in danger of defaulting on its obligations, it could be compelled to undergo liquidation with the Federal Deposit Insurance Corporation ("FDIC") as receiver. For this new regime to be applicable, a number of determinations would have to be made, including that a default by the affected company would have serious adverse effects on financial stability in the U.S. While under this new regime an insurance company would be resolved in accordance with state insurance law, if the FDIC were to be appointed as the receiver for another type of company (including an insurance holding company such as MetLife, Inc.), the liquidation of that company would occur under the provisions of the new liquidation authority, and not under the Bankruptcy Code, which ordinarily governs liquidations. The FDIC's purpose under the liquidation regime is to mitigate the systemic risks the institution's failure poses, which is different from that of a bankruptcy trustee under the Bankruptcy Code. In such a liquidation, the holders of such company's debt could in certain respects be treated differently than under the Bankruptcy Code. As required by Dodd-Frank, the FDIC has established rules relating to the priority of creditors' claims and the potentially dissimilar treatment of similarly situated creditors. These provisions could apply to some financial institutions whose outstanding debt securities we hold in our investment portfolios.

Dodd-Frank also includes provisions that may impact the investments and investment activities of MetLife, Inc. and its subsidiaries, including the federal regulation of such activities. Until the various final regulations are promulgated pursuant to Dodd-Frank, and perhaps for some time thereafter, the full impact of Dodd-Frank on such activities will remain unclear.

Health Care Regulation

The Patient Protection and Affordable Care Act ("PPACA"), signed into law on March 23, 2010, and The Health Care and Education Reconciliation Act of 2010, signed into law on March 30, 2010 (together, the "Affordable Care Act"), impose obligations on MetLife as an enterprise, and as a provider of non-medical health insurance benefits and a purchaser of certain of these products. In 2014, we became subject to an excise tax called the "health insurer fee," the cost of which is primarily passed on to group purchasers of certain of our dental and vision insurance products. The health insurer fee was suspended pursuant to legislation during the 2017 calendar year but was in force for the 2018 calendar year. On January 22, 2018, the health insurer fee was suspended for the 2019 calendar year. The Affordable Care Act and its related regulations have resulted in increased and unpredictable costs to provide certain products and may have additional adverse effects. It has also harmed our competitive position, as the Affordable Care Act has a disparate impact on our products compared to products offered by our not-for-profit competitors. See "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition."

On July 14, 2014, the District of Columbia ("DC") adopted a law that imposes an assessment on health insurers doing business in DC, including those that issue non-medical health-related products that are not subject to regulation under the Affordable Care Act. MetLife and other similarly impacted insurers are currently funding litigation sponsored by the American Council of Life Insurers (ACLI) to challenge the legality of DC's assessment. While the financial impact to the Company of DC's action will be minimal, if other states decide to adopt this model, there could be an impact on product pricing and sales. Additionally, Connecticut has levied, and Maryland has proposed legislation to levy, assessments in connection with their healthcare exchanges, and other states may also consider levying assessments on both medical and non-medical health insurers to fund their healthcare exchanges.

The Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010 also includes certain provisions for defined benefit pension plan funding relief. As part of our RIS business, we offer general account and separate account group annuity products that enable a plan sponsor to transfer these risks, often in connection with the termination of defined benefit pension plans. These provisions may impact the likelihood or timing of corporate plan sponsors terminating their plans or engaging in transactions to transfer pension obligations to an insurance company. Such rules could thus affect our mix of business, resulting in fewer pension risk transfers and more non-guaranteed funding products.

Guaranty Associations and Similar Arrangements

Many jurisdictions in which our insurance subsidiaries are admitted to transact business require life, health and property and casualty insurers doing business within the jurisdiction to participate in guaranty associations or similar arrangements in order to pay certain contractual insurance benefits owed pursuant to insurance policies issued by impaired, insolvent or failed insurers, or those that may become impaired, insolvent or fail. We have established liabilities for guaranty fund assessments that we consider adequate. See Note 20 of the Notes to the Consolidated Financial Statements for additional information on the guaranty association assessments.

Insurance Regulatory Examinations and Other Activities

As part of their regulatory oversight process, U.S. state insurance departments conduct periodic detailed examinations of the books, records, accounts, and business practices of insurers domiciled in their states. State insurance departments also have the authority to conduct examinations of non-domiciliary insurers that are licensed in their states. Except as otherwise disclosed below regarding the consent order and in Note 20 of the Notes to the Consolidated Financial Statements, during the years ended December 31, 2018, 2017 and 2016, MetLife did not receive any material adverse findings resulting from state insurance department examinations of its insurance subsidiaries. On October 15, 2018, MetLife received notice that insurance regulators for the states of Pennsylvania, California, Florida, North Dakota and New Hampshire have scheduled a multistate market conduct re-examination of MetLife and its affiliates relating to compliance with the Regulatory Settlement Agreement on unclaimed proceeds. On January 28, 2019, MetLife entered into a consent order with the New York State Department of Financial Services ("NYDFS") relating to the open quinquennial exam and agreed to pay a $19.75 million fine, an additional $1.5 million in customer restitution and submit remediation plans for approval within 60 days.

Regulatory authorities in a small number of states, the Financial Industry Regulatory Authority ("FINRA") and, occasionally, the U.S. Securities and Exchange Commission (the "SEC") have had investigations or inquiries relating to sales of individual life insurance policies or annuities or other products issued by MLIC, General American Life Insurance Company ("GALIC"), which merged with and into Metropolitan Tower Life Insurance Company ("MTL") on April 30, 2018, and MetLife Securities, Inc. ("MSI"), a broker-dealer which was part of the U.S. Retail Advisor Force Divestiture (as defined below). These investigations have focused on the conduct of particular financial services representatives, the sale of unregistered or unsuitable products, the misuse of client assets, and sales and replacements of annuities and certain riders on such annuities. Over the past several years, these and a number of investigations by other regulatory authorities were resolved for monetary payments and certain other relief, including restitution payments. We may continue to receive, and may resolve, further investigations and actions on these matters in a similar manner.

Insurance standard-setting and regulatory support organizations, including the NAIC, encourage insurance supervisors to establish Supervisory Colleges for U.S.-based insurance groups with international operations to facilitate cooperation and coordination among the insurance groups' supervisors and to enhance the member regulators' understanding of an insurance group's risk profile. MetLife's regulators, such as the NYDFS, regularly chair Supervisory College meetings that are attended by MetLife's key U.S. and non-U.S. regulators.

Regulators supervise our non-U.S. insurance businesses using techniques such as periodic examinations of insurance company books and records, financial reporting requirements, market conduct examinations and policy filing requirements. The European Insurance and Occupational Pensions Authority ("EIOPA"), along with European legislation, requires European regulators, such as the Central Bank of Ireland ("CBI"), to establish Supervisory Colleges for European Economic Area ("EEA")-based insurance groups with significant European operations, including MetLife, to facilitate cooperation and coordination among the insurance groups' European supervisors and to enhance the member state regulators' understanding of an insurance group's risk profile.

On July 13, 2018, the Chilean insurance regulator requested information from us and other companies regarding sales practices related to our annuities business in Chile. We have provided the requested information. In addition, on February 1, 2017, the National Economic Prosecutor of Chile initiated an investigation of insurance companies in the Chilean market, including us, regarding fair competition in the insurance market, particularly bidding processes for mortgage insurance. We are cooperating with the investigation.

In addition, claims payment practices by insurance companies have received increased scrutiny from regulators. See Note 20 of the Notes to the Consolidated Financial Statements for further information regarding retained asset accounts and unclaimed property inquiries, including pension benefits.

Policy and Contract Reserve Adequacy Analysis

Annually, our U.S. insurance subsidiaries, including affiliated captive reinsurers, are required to conduct an analysis of the adequacy of all statutory reserves. In each case, a qualified actuary must submit an opinion that states that the statutory reserves make adequate provision, according to accepted actuarial standards of practice, for the anticipated cash flows required by the contractual obligations and related expenses of the U.S. insurance subsidiary. The adequacy of the statutory reserves is considered in light of the assets held by the insurer with respect to such reserves and related actuarial items including, but not limited to, the investment earnings on such assets, and the consideration anticipated to be received and retained under the related policies and contracts. The Company may increase reserves in order to submit an opinion without qualification. Since the inception of this requirement, our U.S. insurance subsidiaries that are required by their states of domicile to provide these opinions have provided such opinions without qualifications.

Many of our non-U.S. insurance operations are also required to conduct analyses of the adequacy of all statutory reserves. In most of those cases, a locally qualified actuary must submit an analysis of the likelihood that the reserves make adequate provision for the associated contractual obligations and related expenses of the insurer. Local regulatory and actuarial standards for this analysis vary widely.

NAIC

The NAIC assists U.S. state insurance regulatory authorities in serving the public interest and achieving the insurance regulatory goals of its members, the state insurance regulatory officials. State insurance regulators may act independently or adopt regulations proposed by the NAIC. State insurance regulators and the NAIC regularly re-examine existing laws and regulations applicable to insurance companies and their products. Through the NAIC, state insurance regulators establish standards and best practices, conduct peer reviews, and coordinate their regulatory oversight. The NAIC provides standardized insurance industry accounting and reporting guidance through its Accounting Practices and Procedures Manual (the "Manual"), which states have largely adopted by regulation. However, statutory accounting principles continue to be established by individual state laws, regulations and permitted practices, which may differ from the Manual. Changes to the Manual or modifications by the various state insurance departments may impact the statutory capital and surplus of MetLife, Inc.'s U.S. insurance subsidiaries.

U.S. state insurance holding company laws and regulations are generally based on the Model Holding Company Act and Regulation. These insurance holding company laws and regulations vary from jurisdiction to jurisdiction, but generally require a controlled insurance company (i.e., insurers that are subsidiaries of insurance holding companies) to register with state regulatory authorities and to file with those authorities certain reports, including information concerning its capital structure, ownership, financial condition, certain intercompany transactions and general business operations.

The Model Holding Company Act and Regulation include a requirement that the ultimate controlling person of a U.S. insurer file an annual enterprise risk report with the lead state of the insurance holding company system identifying risks likely to have a material adverse effect upon the financial condition or liquidity of the insurer or its insurance holding company system as a whole. To date, all of the states where MetLife has domestic insurers have enacted a version of the revised Model Holding Company Act, including the enterprise risk reporting requirement. The Model Holding Company Act also authorizes state insurance commissioners to act as global group-wide supervisors for internationally active insurance groups, as well as other insurers that choose to opt in for the group-wide supervision. The Model Holding Company Act creates a selection process for the group-wide supervisor, extends confidentiality protection to communications with the group-wide supervisor, and outlines the duties of the group-wide supervisor. To date, a number of jurisdictions have adopted laws and regulations enhancing group-wide supervision.

The NAIC has concluded its "Solvency Modernization Initiative," which was designed to review the U.S. financial regulatory system and all aspects of financial regulation affecting insurance companies. Though broad in scope, the NAIC's Solvency Modernization Initiative focused on: (i) capital requirements; (ii) corporate governance and risk management; (iii) group supervision; (iv) statutory accounting and financial reporting; and (v) reinsurance. In furtherance of this initiative, the NAIC adopted the Corporate Governance Annual Disclosure Model Act and Regulation. The model act, which requires insurers to make an annual confidential filing regarding their corporate governance policies, has been adopted in twenty-seven states as of January 2019, including certain of our insurance subsidiaries' domiciliary states. In addition, the NAIC adopted the Risk Management and Own Risk and Solvency Assessment Model Act ("ORSA Model Act"), which has been enacted by our insurance subsidiaries' domiciliary states. The ORSA Model Act requires that insurers maintain a risk management framework and conduct an internal own risk and solvency assessment of the insurer's material risks in normal and stressed environments. The assessment must be documented in a confidential annual summary report, a copy of which must be made available to regulators as required or upon request. MetLife, Inc. has submitted on behalf of the enterprise an Own Risk and Solvency Assessment ("ORSA") summary report to the NYDFS annually since this requirement became effective.

The NAIC has approved a new valuation manual containing a principle-based approach to the calculation of life insurance reserves. Principle-based reserving is designed to better address reserving for products, including the current generation of products for which the current formulaic basis for reserve determination does not work effectively. The principle-based approach became effective on January 1, 2017 in the states where it had been adopted, to be followed by a three-year phase-in period (at the option of insurance companies on a product-by-product basis) for new business since it was enacted into law by the required number of state legislatures. To date, principle-based reserving has been adopted by all of the states where our insurance subsidiaries are domiciled. New York has enacted legislation which will allow principle-based reserving no later than January 1, 2020. New York's implementing regulation establishes that the reserving standard in New York will be consistent with the reserve standards, valuation methods and related requirements of the NAIC Valuation Manual (the "Valuation Manual"), while also authorizing the NYDFS to deviate from the Valuation Manual, by regulation, if it determines that an alternative requirement would be in the best interest of the policyholders of New York.

In 2015, the NAIC commenced an initiative to study variable annuity solvency regulations, with the goal of curtailing the use of variable annuity captives. In connection with this initiative, the NAIC engaged a third-party consultant to develop recommendations regarding reserve and capital requirements. Following several public exposures of the consultant's recommendations, the NAIC adopted a new variable annuity framework, which is designed to reduce the level and volatility of the non-economic aspect of reserve and risk-based capital ("RBC") requirements for variable annuity products. The NAIC is now preparing technical language to be included in various NAIC manuals and guidelines to implement the new framework. We cannot predict the impact of this framework on our business until such technical requirements of the framework are completed, and we cannot predict whether the NYDFS or other state insurance regulators will adopt standards different from the NAIC framework.

In August 2017, the NAIC released a paper on macro-prudential initiatives, in which they proposed potential enhancements in supervisory practices related to liquidity, recovery and resolution, capital stress testing and exposure concentrations. The NAIC has adopted extensive changes to Statutory Annual Statement reporting, effective for year-end 2019, which it believes will improve liquidity risk monitoring.

We currently utilize capital markets solutions to finance a portion of our statutory reserve requirements for several products, including, but not limited to, our level premium term life subject to the NAIC Model Regulation Valuation of Life Insurance Policies (commonly referred to as XXX), and universal and variable life policies with secondary guarantees ("ULSG") subject to NAIC Actuarial Guideline 38 (commonly referred to as AXXX), as well as MLIC's closed block. Future capacity for these statutory reserve funding structures in the marketplace is not guaranteed. In 2014, the NAIC approved a new regulatory framework applicable to the use of captive insurers in connection with Regulation XXX and Guideline AXXX transactions. Among other things, the framework called for more disclosure of an insurer's use of captives in its statutory financial statements, and narrows the types of assets permitted to back statutory reserves that are required to support the insurer's future obligations. In 2014, the NAIC implemented the framework through an actuarial guideline ("AG 48"), which requires the actuary of the ceding insurer that opines on the insurer's reserves to issue a qualified opinion if the framework is not followed. The requirements of AG 48 became effective as of January 1, 2015 in all states without any further action necessary by state legislatures or insurance regulators to implement them, and apply prospectively to new policies issued and new reinsurance transactions entered into on or after January 1, 2015. In late 2016, the NAIC adopted an update to AG 48 and a model regulation that contains the same substantive requirements as the updated AG 48. The states have started to adopt the model regulation.

We cannot predict the capital and reserve impacts or compliance costs, if any, that may result from the above initiatives, or what impact these initiatives will have on our business, financial condition or results of operations.

Surplus and Capital

Insurers are required to maintain their capital and surplus at or above minimum levels prescribed by the laws of their respective jurisdictions. Regulators generally have discretionary authority, in connection with the continued licensing of our insurance subsidiaries, to limit or prohibit an insurer's sales to policyholders if, in their judgment, the regulators determine that such insurer has not maintained the minimum surplus or capital or that the further transaction of business will be hazardous to policyholders.

State insurance statutes also typically place restrictions and limitations on the amount of dividends or other distributions payable by insurance company subsidiaries to their parent companies, as well as on transactions between an insurer and its affiliates. Dividends in excess of prescribed limits and transactions above a specified size between an insurer and its affiliates require the approval of the insurance regulator in the insurer's state of domicile. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — MetLife, Inc. — Liquidity and Capital Sources — Dividends from Subsidiaries." See also "Dividend Restrictions" in Note 15 of the Notes to the Consolidated Financial Statements for further information regarding such limitations.

Our operations in non-U.S. jurisdictions may also be subject to restrictions on dividends and other distributions. For example, a portion of the annual earnings of our Japan operations may be repatriated each year, and may further be distributed to MetLife, Inc. as a dividend. We may determine not to repatriate profits from the Japan operations or to repatriate a reduced amount in order to maintain or improve the solvency margin of the Japan operations or for other reasons. In addition, the Financial Services Agency ("FSA") may limit or not permit profit repatriations or other transfers of funds to the U.S. if such transfers would be detrimental to the solvency or financial strength of our Japan operations or for other reasons.

For developments that could affect our ratio of free cash flow to adjusted earnings results, and thus our surplus and capital, see "Risk Factors," as amended or supplemented in our subsequently filed Quarterly Reports on Form 10-Q.

Risk-Based Capital

Most of our U.S. insurance subsidiaries are subject to RBC requirements that were developed by the NAIC and adopted by their respective states of domicile. RBC is based on a formula calculated by applying factors to various asset, premium, claim, expense and statutory reserve items. The formula takes into account the risk characteristics of the insurer and is calculated on an annual basis. The major categories of risk involved are asset risk, insurance risk, interest rate risk, market risk and business risk. The formula is used as an early warning regulatory tool to identify possible inadequately capitalized insurers for purposes of initiating regulatory action, and not as a means to rank insurers generally. State insurance laws provide insurance regulators the authority to require various actions by, or take various actions against, insurers whose total adjusted capital does not meet or exceed certain RBC levels. As of the date of the most recent annual statutory financial statements filed with insurance regulators, the total adjusted capital of each of our subsidiaries subject to these requirements was in excess of each of those RBC levels. See "Statutory Equity and Income" in Note 15 of the Notes to the Consolidated Financial Statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Capital — Statutory Capital and Dividends."

In December 2017, President Trump signed into law H.R.1, commonly referred to as the Tax Cuts and Jobs Act of 2017 ("U.S. Tax Reform"). Following the reduction in the federal corporate income tax rate pursuant to U.S. Tax Reform, the NAIC adopted revisions to certain factors used to calculate Life RBC, which is the denominator of the RBC ratio. These revisions to the NAIC's Life RBC calculation have resulted in increases in RBC charges and reductions in the RBC ratios of our insurance subsidiaries. The NAIC is also studying RBC revisions for bonds, real estate, and longevity risk, but it is premature to project the impact of any potential regulatory changes resulting from such proposals.

The NAIC is continuing to develop a group capital calculation tool using an RBC aggregation methodology for all entities within the insurance holding company system, including non-U.S. entities. The goal is to provide U.S. regulators with a method to aggregate the available capital and the minimum capital of each entity in a group in a way that applies to all groups regardless of their structure. The NAIC expects to conduct field testing in the first half of 2019. The NAIC has stated that the calculation will be a regulatory tool and will not constitute a requirement or standard. Nonetheless, any new group capital calculation methodology may incorporate existing RBC concepts. It is not possible to predict what impact any such regulatory tool may have on our business.

While not required by or filed with insurance regulators, we calculate internally defined combined RBC ratios, which are determined by dividing the sum of total adjusted capital for MetLife, Inc.'s principal U.S. insurance subsidiaries, excluding American Life Insurance Company ("American Life"), by the sum of company action level RBC for such subsidiaries. We calculate such combined RBC ratios based on NAIC capital and reserving requirements ("NAIC-Based Combined RBC Ratios"). The NAIC-Based Combined RBC Ratio was in excess of 380% at December 31, 2018 and in excess of 400% at December 31, 2017. The changes due to U.S. Tax Reform discussed above were the primary driver of the reduction. With the exception of changes related to the NAIC's principle-based reserving framework, discussed above under "— NAIC," we are not aware of any upcoming NAIC adoptions or state insurance department regulation changes that would have a material impact on the NAIC-Based Combined RBC Ratios of our U.S. insurance subsidiaries.

Solvency Regimes

Our insurance business throughout the EEA is subject to the Solvency II Directive (2009/138/EC) and its implementing rules, which cover the capital adequacy, risk management and regulatory reporting for insurers and reinsurers. Solvency II codifies and harmonizes the European Union ("EU") insurance regulation. Capital requirements are forward-looking and based on the risk profile of each individual insurance company in order to promote comparability, transparency and competitiveness. In line with the requirements, MetLife entities calculate and report their solvency capital requirement using a standard formula prescribed by the EU Directive and further regulation by the EIOPA.

Mexico adopted a reform of its Insurance Law in February 2013. In accordance with this reform, a Solvency II-type regulatory framework became effective on January 1, 2016, which instituted changes to reserve and capital requirements and corporate governance and fostered greater transparency. In line with the requirements of the local Solvency II, insurance companies calculate and report their capital requirement using a standard formula designed by the local regulators ("CNSF"). In addition, as required, certain MetLife entities must submit annual ORSA reports to the CNSF on an ongoing basis.

In Chile, the law implementing Solvency II-like regulation continues in the studies stage. The implementation date for the new solvency regime has not yet been set; however, it could be in force within four years after the final regulation is published. The Chilean insurance regulator had already issued two resolutions in 2011, one for governance and the other for risk management and control framework requirements. MetLife Chile has already implemented governance changes and risk policies to comply with these resolutions. On March 31, 2016, the local regulator issued a final regulation that requires insurance companies to implement a risk appetite framework and produce an ORSA. The second such report was submitted to the local regulator in June 2018.

In July 2015, the Superintendence of Private Insurance, the Brazilian insurance regulator ("SUSEP"), issued a regulation establishing (i) a framework for minimum capital requirements based on risk and (ii) criteria for investment activities in insurance companies. In November 2015, SUSEP issued an additional regulation requiring insurance companies operating in Brazil to adopt a formal risk management function by the end of 2016 and to implement a formal enterprise risk management framework in 2017. In December 2016, MetLife Brazil formalized the designation of a local Risk Manager in Brazil in compliance with local regulation and in 2017 completed the implementation of governance structures and risk management framework components in accordance with local regulatory requirements.

Japanese law provides that insurers in Japan must maintain specified solvency standards for the protection of policyholders and to support the financial strength of licensed insurers. As of December 31, 2018, the solvency margin ratio of our Japan operations was in excess of four times the 200% solvency margin ratio that would require corrective action, as disclosed in our most recent regulatory filing in Japan. Most Japanese life insurers maintain a solvency margin ratio well in excess of the legally mandated minimum. In addition, Japan is expected to introduce an economic value-based solvency regime within the next few years.

In China, the business of our joint venture (as well as the industry) has been implementing China Risk Oriented Solvency System ("C-ROSS"), a risk-based solvency regime, which became effective on January 1, 2016. Like Solvency II, C-ROSS focuses on risk management and has three pillars (strengthen quantitative capital requirements, enhance qualitative supervision and establish a governance and market discipline process). In September 2017, the regulator announced a three-year plan aimed at improving C-ROSS rules in line with the changing market environment.

In Korea, the Financial Supervisory Service is planning to implement by 2022 a new solvency system mirroring the International Capital Standard but reflecting certain product portfolio and other features specific to the Korean market. Mark-to-market valuation is expected to be a key feature of the new system, which would generally increase capital requirements.

IAIS

The International Association of Insurance Supervisors ("IAIS"), an association of insurance supervisors and regulators and a member of the Financial Stability Board ("FSB"), an international entity established to coordinate, develop and promote regulatory, supervisory and other financial sector policies in the interest of financial stability, is participating in the FSB's initiative to identify and manage systemic risk globally. Beginning in 2013, the FSB annually designated certain insurers as globally systemically important insurers ("G-SIIs") using an assessment methodology developed and implemented by the IAIS. In November 2016, MetLife, Inc. and eight other firms were designated as G-SIIs. In November 2017, the FSB announced it would not publish a new list of G-SIIs pending further consideration and recommended that the IAIS continue development of an activities-based approach ("ABA") to assessing and managing potential systemic risk in the insurance sector. In November 2018, the FSB decided not to designate any G-SIIs in 2018. The FSB explained that this decision was made in light of progress made by the IAIS to develop a holistic framework for sector-wide risk monitoring and management of systemic risk and policy tools to deal with the build-up of risk within insurers. The FSB announcement coincided with the release of an IAIS consultative document on a Holistic Framework for the Assessment and Mitigation of Systemic Risk in the Insurance Sector. The FSB noted that it will reassess suspension of G-SII designations in November 2022 after implementation of the holistic framework and decide whether to permanently discontinue or re-establish the G-SII identification process.

Current standards remain as drafted for entity-based designation and call for additional requirements for G-SIIs, which include higher loss absorbency ("HLA") requirements, and more intensive supervision, among other requirements. In February 2017, the IAIS confirmed that the risk-based global insurance capital standard ("ICS") will replace basic capital requirements as the basis for a revised HLA and that work on revisions is deferred until adoption of the ICS by the IAIS in 2019. HLA implementation is to be delayed until 2022 for the 2020 group of G-SIIs. In November 2017, the IAIS announced an agreement regarding further development and implementation of the ICS, and the impact on timing of further development and implementation of HLA requirements is unclear.

All IAIS proposals would need to be implemented at the consolidated group level by legislation or regulation in each applicable jurisdiction. As MetLife, Inc. is no longer a U.S. non-bank SIFI and none of its regulators have proposed implementing the G-SII or other capital requirements, the impact on MetLife, Inc. of such global proposals is uncertain.

Investments Regulation

Each of our U.S. insurance subsidiaries is subject to state laws and regulations that require diversification of investment portfolios and limit the amount of investments that an insurer may have in certain asset categories, such as below investment grade fixed income securities, real estate equity, other equity investments, and derivatives. Failure to comply with these laws and regulations would cause investments exceeding regulatory limitations to be treated as non-admitted assets for purposes of measuring surplus and, in some instances, would require divestiture of such non-qualifying investments. We believe that the investments made by each of MetLife, Inc.'s U.S. insurance subsidiaries complied, in all material respects, with such regulations at December 31, 2018. In addition, many of our non-U.S. insurance subsidiaries are subject to local investment laws and regulations.

As a global insurance company, we are also affected by the monetary policies of central banks around the world. Actions resulting from these policies, including with respect to interest rates, may have an impact on the pricing levels of risk-bearing investments, and may impact the income we earn on our investments or the level of product sales. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Current Environment."

New York Insurance Regulation 210

Insurance Regulation 210 went into effect in New York on March 19, 2018. Insurance Regulation 210 establishes standards for the determination and any readjustment of non-guaranteed elements ("NGEs") that may vary at the insurer's discretion for life insurance policies and annuity contracts delivered or issued for delivery in New York. Examples of NGEs include cost of insurance for universal life insurance policies, as well as interest crediting rates for annuities and universal life insurance policies. The regulation requires insurers to notify policyholders at least 60 days in advance of any change in NGEs that is adverse to policyholders and, with respect to life insurance, to notify the NYDFS at least 120 days prior to any such changes. Additionally, the regulation requires insurers to file annually with NYDFS to inform the NYDFS of any changes adverse to policyholders made in the prior year. The regulation generally prohibits insurers from increasing profit margins for in-force policies or adjusting NGEs in order to recoup past losses.

Cybersecurity and Privacy Regulation

Pursuant to U.S. federal and state laws, and laws of other jurisdictions in which we operate, various government agencies have established rules protecting the privacy and security of personal information. In addition, most U.S. states and a number of jurisdictions outside the United States have enacted laws, which vary significantly from jurisdiction to jurisdiction, to safeguard the privacy and security of personal information. The area of cybersecurity has also come under increased scrutiny by insurance and other regulators.

New York's cybersecurity regulation for financial services institutions, including banking and insurance entities under its jurisdiction, requires these entities to establish and maintain a cybersecurity program designed to protect consumers' private data. The regulation specifically provides for: (i) controls relating to the governance framework for a cybersecurity program; (ii) risk-based minimum standards for technology systems for data protection; (iii) minimum standards for cyber breach responses, including notice to NYDFS of material events; and (iv) identification and documentation of material deficiencies, remediation plans and annual certifications of regulatory compliance to the NYDFS.

In addition, on October 24, 2017, the NAIC adopted the Insurance Data Security Model Law (the "Cybersecurity Model Law"), which establishes standards for data security and for the investigation of and notification of insurance commissioners of cybersecurity events involving unauthorized access to, or the misuse of, certain nonpublic information. To date, the Cybersecurity Model Law has only been adopted by South Carolina. As adopted by South Carolina, and if adopted as state legislation elsewhere, the Cybersecurity Model Law would impose significant new regulatory burdens intended to protect the confidentiality, integrity and availability of information systems. However, a drafting note in the Cybersecurity Model Law states that a licensee's compliance with the New York cybersecurity regulation is intended to constitute compliance with the Cybersecurity Model Law.

The General Data Protection Regulation ("GDPR"), which is intended to establish uniform data privacy laws across the EU, became effective for all EU member states on May 25, 2018. GDPR is extraterritorial in that it applies to EU entities, as well as entities not established in the EU that offer goods or services to data subjects in the EU or monitor consumer behavior that takes place in the EU. Fines may be imposed for non-compliance with the requirements of the GDPR.

The California Consumer Privacy Act of 2018 (the "CCPA") grants all California residents the right to know what information a business has collected from them and the sourcing and sharing of that information, as well as a right to have a business delete their personal information (with some exceptions). Its definition of "personal information" is more expansive than those found in other privacy laws applicable to us in the United States. Failure to comply with the CCPA could result in regulatory fines, and the law grants a private right of action for any unauthorized disclosure of personal information as a result of failure to maintain reasonable security procedures. We expect that exceptions to the CCPA will apply to a significant portion of our business. The CCPA is expected to become operational on January 1, 2020, but California's Attorney General is expected to delay enforcement actions until six months after a final regulation is promulgated or July 1, 2020, whichever is sooner.

ERISA, Fiduciary Considerations, and Other Pension and Retirement Regulation

We provide products and services to certain employee benefit plans that are subject to ERISA and the Internal Revenue Code of 1986, as amended (the "Code"). As such, our activities are subject to the restrictions imposed by ERISA and the Code, including the requirement under ERISA that fiduciaries must perform their duties solely in the interests of ERISA plan participants and beneficiaries, and that fiduciaries may not cause a covered plan to engage in certain prohibited transactions. The applicable provisions of ERISA and the Code are subject to enforcement by the Department of Labor ("DOL"), the Internal Revenue Service ("IRS") and the Pension Benefit Guaranty Corporation.

The prohibited transaction rules of ERISA and the Code generally restrict the provision of investment advice to ERISA plans and participants and Individual Retirement Accounts ("IRAs") if the investment recommendation results in fees paid to an individual advisor, the firm that employs the advisor or their affiliates that vary according to the investment recommendation chosen, unless an exemption or exception is available. Similarly, without an exemption or exception, fiduciary advisors are prohibited from receiving compensation from third parties in connection with their advice. ERISA also affects certain of our in-force insurance policies and annuity contracts, as well as insurance policies and annuity contracts we may sell in the future.

The DOL issued regulations that largely were applicable in 2017 that expanded the definition of "investment advice" and required an advisor to meet an impartial or "best interests" standard, but the regulations were formally vacated by the U.S. Court of Appeals for the Fifth Circuit in 2018. The Court of Appeals decision also vacated certain DOL amendments to prohibited transaction exemptions. The DOL has announced that it plans to issue revised fiduciary investment advice regulations in September 2019. At this time, we cannot predict what form those regulations may take or their potential impact on us.

Separately, on April 18, 2018, the SEC proposed and opened for public comment a package of the rule proposals and interpretations regarding Regulation Best Interest, which would require broker-dealers to act in the best interest of "retail" customers including participants in ERISA-covered plans and IRAs when making a recommendation of any securities transaction or investment strategy involving securities. The comment period for these proposals has closed. We cannot predict the timing of any final rules or interpretations.

On December 14, 2017, the DOL released its semiannual regulatory agenda, which proposed revisions to Form 5500, the form used for ERISA annual reporting, proposed jointly with the IRS and the Pension Benefit Guaranty Corporation in 2016. The revisions affect employee pension and welfare benefit plans, including our ERISA plans, and require audits of information, self-directed brokerage account disclosure and additional extensive disclosure. We cannot predict the effect these proposals will have on our business, if enacted, or what other proposals may be made, what legislation may be introduced or enacted, or what impact any such legislation may have on our results of operations and financial condition.

In addition, the DOL has issued a number of regulations that increase the level of disclosure that must be provided to plan sponsors and participants. The participant disclosure regulations and the regulations that require service providers to disclose fee and other information to plan sponsors took effect in 2012. In *John Hancock Mutual Life Insurance Company v. Harris Trust and Savings Bank* (1993), the U.S. Supreme Court held that certain assets in excess of amounts necessary to satisfy guaranteed obligations under a participating group annuity general account contract are "plan assets." Therefore, these assets are subject to certain fiduciary obligations under ERISA, which requires fiduciaries to perform their duties solely in the interest of ERISA plan participants and beneficiaries. On January 5, 2000, the Secretary of Labor issued final regulations indicating, in cases where an insurer has issued a policy backed by the insurer's general account to or for an employee benefit plan, the extent to which assets of the insurer constitute plan assets for purposes of ERISA and the Code. The regulations apply only with respect to a policy issued by an insurer on or before December 31, 1998 ("Transition Policy"). No person will generally be liable under ERISA or the Code for conduct occurring prior to July 5, 2001, where the basis of a claim is that insurance company general account assets constitute plan assets. An insurer issuing a new policy that is backed by its general account and is issued to or for an employee benefit plan after December 31, 1998 will generally be subject to fiduciary obligations under ERISA, unless the policy is a guaranteed benefit policy.

The regulations indicate the requirements that must be met so that assets supporting a Transition Policy will not be considered plan assets for purposes of ERISA and the Code. These requirements include detailed disclosures to be made to the employee benefits plan and the requirement that the insurer must permit the policyholder to terminate the policy on 90 days' notice and receive without penalty, at the policyholder's option, either (i) the unallocated accumulated fund balance (which may be subject to market value adjustment) or (ii) a book value payment of such amount in annual installments with interest. We have taken and continue to take steps designed to ensure compliance with these regulations.

Several other regulatory organizations have also proposed various "best interest" standards. The NAIC has been discussing proposed revisions to the Suitability in Annuity Transactions Model Regulation throughout 2018. The revisions are intended to elevate the standard of care in existing suitability standards for the sale of annuities and to make consumers aware of any material conflicts of interest. A further updated draft of the Suitability in Annuity Transactions Model Regulation was exposed for public comment through mid-February 2019. The NAIC intends to finalize the revisions to the Suitability in Annuity Transactions Model Regulation in 2019. In addition, on December 27, 2017, the NYDFS proposed initial revisions to Insurance Regulation 187, which not only incorporate the "best interest" standard but also would expand the scope of the regulation beyond annuity transactions to include sales of life insurance policies to consumers. On July 22, 2018, the NYDFS issued the final version of revised Insurance Regulation 187, which takes effect on August 1, 2019.

On October 29, 2018, Chilean President Sebastien Piñera submitted to Congress a new pension reform bill. The bill would increase employer mandatory contributions and affirm private pension fund administration. We are not able to predict with certainty whether such bill will be adopted and cannot currently identify all of the risks or opportunities, if any, that may be posed to our business in Chile. We expect that the Congressional debate may last through most of 2019.

On January 1, 2018, new regulations went into effect in Korea that reduced commission on savings retirement products. These regulations have negatively impacted sales of savings retirement products across the Korean market, including for us.

Consumer Protection Laws

Numerous federal and state laws affect MetLife, Inc.'s earnings and activities, including federal and state consumer protection laws, and MetLife, Inc. may be impacted by consumer protection laws in non-U.S. jurisdictions as well. As part of Dodd-Frank, Congress established the Consumer Financial Protection Bureau ("CFPB") to supervise and regulate institutions that provide certain financial products and services to consumers. Although the consumer financial services subject to the CFPB's jurisdiction generally exclude insurance business of the kind in which we engage, the CFPB does have authority to regulate non-insurance consumer services we provide.

In August 2013, MetLife Bank, National Association ("MetLife Bank") merged with and into MetLife Home Loans LLC ("MLHL"), its former subsidiary, with MLHL as the surviving, non-bank entity. The sole purpose of MLHL is to wind-down the limited remaining activities and fulfill remaining obligations and duties of MetLife Bank, some of which subject MLHL to certain federal consumer financial protection laws and certain state laws.

Derivatives Regulation

Dodd-Frank includes a framework of regulation of the over-the-counter ("OTC") derivatives markets which requires clearing of certain types of transactions currently traded OTC and which imposes additional costs, including reporting and margin requirements. Our costs of risk mitigation are increasing under Dodd-Frank. For example, Dodd-Frank imposes requirements to pledge variation and/or initial margin (i) for "OTC-cleared" transactions (OTC derivatives that are cleared and settled through central clearing counterparties), and (ii) for "OTC-bilateral" transactions (OTC derivatives that are bilateral contracts between two counterparties); the margin requirements for OTC-cleared transactions and the variation margin requirements for OTC-bilateral derivatives are already in effect, while the initial margin requirements for OTC-bilateral transactions will likely be applicable to us in September 2020. These increased margin requirements, combined with increased capital charges for our counterparties and central clearinghouses with respect to non-cash collateral, will likely require increased holdings of cash and highly liquid securities with lower yields causing a reduction in income and less favorable pricing for OTC-cleared and OTC-bilateral transactions. Centralized clearing of certain OTC derivatives exposes us to the risk of a default by a clearing member or clearinghouse with respect to our cleared derivative transactions. We use derivatives to mitigate a wide range of risks in connection with our businesses, including the impact of increased benefit exposures from certain of our annuity products that offer guaranteed benefits. We have always been subject to the risk that hedging and other management procedures might prove ineffective in reducing the risks to which insurance policies expose us or that unanticipated policyholder behavior or mortality, combined with adverse market events, could produce economic losses beyond the scope of the risk management techniques employed. Any such losses could be increased by higher costs of writing derivatives (including customized derivatives) and the reduced availability of customized derivatives that might result from the implementation of Dodd-Frank and comparable international derivatives regulations.

Dodd-Frank also expanded the definition of "swap" and mandated the SEC and U.S. Commodity Futures Trading Commission ("CFTC") to study whether "stable value contracts" should be treated as swaps. Pursuant to the new definition and the SEC's and CFTC's interpretive regulations, products offered by our insurance subsidiaries other than stable value contracts might also be treated as swaps, even though we believe otherwise. Should such products become regulated as swaps, we cannot predict how the rules would be applied to them or the effect on such products' profitability or attractiveness to our clients. Federal banking regulators have recently adopted new rules that will apply to certain qualified financial contracts, including many derivatives contracts, securities lending agreements and repurchase agreements, with certain banking institutions and certain of their affiliates. These new rules, which went into effect on January 1, 2019, will generally require the banking institutions and their applicable affiliates to include contractual provisions in their qualified financial contracts that limit or delay certain rights of their counterparties including counterparties' default rights (such as the right to terminate the contracts or foreclose on collateral) and restrictions on assignments and transfers of credit enhancements (such as guarantees) arising in connection with the banking institution or an applicable affiliate becoming subject to a bankruptcy, insolvency, resolution or similar proceeding. To the extent that any of the derivatives, securities lending agreements or repurchase agreements that we enter into are subject to these new rules, it could limit our recovery in the event of a default and increase our counterparty risk.

The amount of collateral we are required to pledge and the payments we are required to make under our derivatives transactions are expected to increase as a result of the requirement to pledge initial margin for OTC-cleared transactions and for OTC-bilateral transactions entered into after the phase-in period, which will likely be applicable to us in September 2020 as a result of adoption by the Office of the Comptroller of the Currency ("OCC"), the Federal Reserve Board, the FDIC, the Farm Credit Administration and the Federal Housing Finance Agency (collectively, the "Prudential Regulators") and the CFTC of final margin requirements for non-centrally cleared derivatives.

Securities, Broker-Dealer and Investment Adviser Regulation

U.S. federal and state securities laws and regulations apply to insurance products that are also "securities," including variable annuity contracts and variable life insurance policies, as well as certain fixed interest rate or index-linked contracts with features that require them to be registered as securities (such as "registered fixed contracts") or sold through private placement issuances. As a result, some of MetLife, Inc.'s subsidiaries and their activities in offering and selling variable insurance contracts and policies are subject to extensive regulation under these securities laws.

Federal and state securities laws and regulations generally grant regulatory agencies broad rulemaking and enforcement powers, including the power to adopt new rules impacting new or existing products, regulate the issuance, sale and distribution of our products and limit or restrict the conduct of business for failure to comply with such laws and regulations. In some non-U.S. jurisdictions, some of our insurance products are considered "securities" under local law, and we may be subject to local securities regulations and oversight by local securities regulators.

Some of our subsidiaries and their activities in offering and selling variable insurance products and certain fixed interest rate or index-linked contracts are subject to extensive regulation under the federal securities laws and regulations administered by the SEC. These subsidiaries issue variable annuity contracts and variable life insurance policies through separate accounts that are registered with the SEC as investment companies under the Investment Company Act of 1940 (the "Investment Company Act") or are exempt from registration under the Investment Company Act. Such separate accounts are generally divided into sub-accounts, each of which invests in an underlying mutual fund which is itself a registered investment company under the Investment Company Act. In addition, the variable annuity contracts and variable life insurance policies associated with these registered separate accounts are registered with the SEC under the Securities Act of 1933 (the "Securities Act") or are exempt from registration under the Securities Act. Some of our subsidiaries also issue fixed interest rate or index-linked contracts with features that require them to be registered as securities under the Securities Act.

Some of our subsidiaries are registered with the SEC as broker-dealers under the Securities Exchange Act of 1934 (the "Exchange Act") and are members of, and subject to regulation by, FINRA. Certain variable contract separate accounts sponsored by our subsidiaries are exempt from registration, but may be subject to other provisions of the federal securities laws. The SEC, CFTC and FINRA from time to time propose rules and regulations that impact products deemed to be securities. The future impact of any adopted rules and regulations on the way we conduct our business and the products we sell is unclear.

Some of our subsidiaries are registered as investment advisers with the SEC under the Investment Advisers Act of 1940, as amended, and are also registered as investment advisers in various states and non-U.S. jurisdictions, as applicable. We may also be subject to similar laws and regulations in non-U.S. jurisdictions where we provide investment advisory services or conduct other activities.

Federal and state securities regulatory authorities and FINRA from time to time make inquiries and conduct examinations regarding compliance by MetLife, Inc. and its subsidiaries with securities and other laws and regulations. We cooperate with such inquiries and examinations and take corrective action when warranted.

Environmental Laws and Regulations

As an owner and operator of real property in many jurisdictions, we are subject to extensive environmental laws and regulations in such jurisdictions. Inherent in such ownership and operation is also the risk that there may be potential environmental liabilities and costs in connection with any required remediation of such properties. In addition, we hold equity interests in companies that could potentially be subject to environmental liabilities. We routinely have environmental assessments performed with respect to real estate being acquired for investment and real property to be acquired through foreclosure. We cannot provide assurance that unexpected environmental liabilities will not arise. However, based on information currently available to us, we believe that any costs associated with compliance with environmental laws and regulations or any remediation of such properties will not have a material adverse effect on our business, results of operations or financial condition.

Unclaimed Property

We are subject to the laws and regulations of states and other jurisdictions concerning identification, reporting and escheatment of unclaimed or abandoned funds, and are subject to audit and examination for compliance with these requirements. See "—Insurance Regulation — Insurance Regulatory Examinations and Other Activities" for discussion of the Regulatory Settlement Agreement relating to unclaimed proceeds. See also "Controls and Procedures" and Note 20 of the Notes to the Consolidated Financial Statements.

Brighthouse Separation Tax Treatment

Prior to the spin-off distribution of Brighthouse Financial, Inc. common stock, we received a private letter ruling from the IRS regarding certain significant issues under the Code, as well as an opinion from tax counsel that the distribution qualified for non-recognition of gain or loss to us and our shareholders pursuant to Sections 355 and 361 of the Code, except to the extent of cash received in lieu of fractional shares, each subject to the accuracy of and compliance with certain representations, assumptions and covenants therein.

Notwithstanding the receipt of the private letter ruling and the tax opinion, the IRS could determine that the distribution should be treated as a taxable transaction, for example, if it determines that any of the representations, assumptions or covenants on which the private letter ruling is based are untrue or have been violated. Similarly, the IRS could determine that our disposal of FVO Brighthouse Common Stock (as defined below) in the debt-for-equity exchange should be treated as a taxable transaction to MetLife, Inc. Furthermore, as part of the IRS's policy, the IRS did not determine whether the distribution or the debt-for-equity exchange satisfies certain conditions that are necessary to qualify for non-recognition treatment. Rather, the private letter ruling is based on representations by us and Brighthouse that these conditions have been satisfied. The tax opinion addressed the satisfaction of these conditions. The tax opinion is not binding on the IRS or the courts, and there can be no assurance that the IRS or a court will not take a contrary position. In addition, the tax counsel relied on certain representations and covenants delivered by us and Brighthouse.

If the IRS ultimately determines that the distribution is taxable, the distribution could be treated as a taxable dividend or capital gain to MetLife shareholders who received shares of Brighthouse Financial, Inc. common stock in the distribution for U.S. federal income tax purposes, and such shareholders could incur significant U.S. federal income tax liabilities. In addition, if the IRS ultimately determines that the distribution is taxable, we and Brighthouse could incur significant U.S. federal income tax liabilities, and either we or Brighthouse could have an indemnification obligation to the other, depending on the circumstances.

Even if the spin-off distribution otherwise qualifies for non-recognition of gain or loss under Section 355 of the Code, it may be taxable to us, but not our shareholders, under Section 355(e) of the Code if 50% or more (by vote or value) of our common stock or Brighthouse Financial, Inc.'s common stock is acquired as part of a plan or series of related transactions that include the distribution. For this purpose, any acquisitions of our or Brighthouse Financial, Inc.'s common stock within two years before or after the distribution are presumed to be part of such a plan, although we or Brighthouse may be able to rebut that presumption based on either applicable facts and circumstances or a "safe harbor" described in the tax regulations. Therefore, under the tax separation agreement with Brighthouse, we are restricted from certain activities and have indemnity obligations which may limit our ability to pursue strategic transactions or engage in new business or other transactions that may maximize the value of our business, and might discourage or delay a strategic transaction that our shareholders may consider favorable.

Cross-Border Trade

On June 23, 2016, the U.K. held a referendum regarding its membership in the EU, resulting in a vote in favor of leaving the EU. The U.K. government triggered the withdrawal process by notifying the EU on March 29, 2017 of the U.K.'s intention to withdraw from the EU (the "Article 50 Notification"). The member withdrawal provisions in the applicable EU treaty provide that the U.K. and the EU will negotiate a withdrawal agreement during a maximum two-year period (unless such period is extended by unanimous vote of the other EU member states or the U.K. withdraws its Article 50 Notification). In the meantime, the U.K. remains a member of the EU with unchanged rights to access the single EU market in goods and services. Our U.K. business model utilizes certain rights to operate cross-border insurance and investment operations which may be modified or eliminated as a result of the U.K. exiting the EU. If the U.K. does not approve and conclude a withdrawal agreement with the EU by March 29, 2019, the U.K. will cease to be a member of the EU, but there will be no agreement governing its future relationship with the EU. In such a scenario, MetLife expects to maintain its existing operating model, including as an inbound EEA-insurer under the U.K.'s Temporary Permissions Regime ("TPR"), which is expected to last for at least three years and will permit MetLife to carry on its insurance business in the U.K. during that period. Operating expenses within our businesses could increase as a result of such changes.

One of the Trump Administration's priorities has been renegotiating certain international trade agreements, including the North American Free Trade Agreement ("NAFTA") with Canada and Mexico. On September 30, 2018, the United States, Canada and Mexico agreed to the framework for a new international trade agreement, known as the United States-Mexico-Canada Agreement ("USMCA"), which would replace NAFTA. President Trump, former Mexican President Enrique Peña Nieto, and Canadian Prime Minister Justin Trudeau signed the USMCA on November 30, 2018. Each signatory's legislature must ratify the agreement before it goes into effect.

Fiscal Measures

The new administration of President López Obrador in Mexico is implementing an austerity plan which, among other measures, has eliminated benefits such as major medical insurance and contributions to additional savings benefit insurance for Mexican federal government personnel and public officials. Mexican state governments or other government institutions may introduce similar austerity policies as well. MetLife is the largest provider of benefits to Mexican federal government personnel and public officials, and such austerity plans may have an adverse effect on our business.

If the U.S. Congress does not approve annual appropriations or otherwise extend appropriations by continuing resolution, many federal government agencies must discontinue most non-essential, discretionary functions, known as a "partial government shutdown." Most recently, the United States government operated under a partial shutdown from December 22, 2018 to January 25, 2019. During a partial government shutdown, financial markets, including the government bond market, continue to function. If the SEC is shut down, although certain SEC functions continue, the SEC may not process new or pending registration statements, qualifications of new or pending offering statements or applications for exemptive relief, which could disrupt or delay new public bond issuances. The partial shutdown of certain other federal agencies could also delay or otherwise impact certain transactions or projects. An extended partial government shutdown could also negatively impact capital markets and economic conditions generally.

Company Ratings

Insurer financial strength ratings represent the opinions of rating agencies, including A.M. Best Company ("A.M. Best"), Fitch Ratings ("Fitch"), Moody's Investors Service ("Moody's") and Standard & Poor's Global Ratings ("S&P"), regarding the ability of an insurance company to meet its financial obligations to policyholders and contractholders.

Rating Stability Indicators

Rating agencies use an "outlook statement" of "positive," "stable," "negative" or "developing" to indicate a medium- or long-term trend in credit fundamentals which, if continued, may lead to a rating change. A rating may have a "stable" outlook to indicate that the rating is not expected to change; however, a "stable" rating does not preclude a rating agency from changing a rating at any time, without notice. Certain rating agencies assign rating modifiers such as "CreditWatch" or "under review" to indicate their opinion regarding the potential direction of a rating. These ratings modifiers are generally assigned in connection with certain events such as potential mergers, acquisitions, dispositions or material changes in a company's results, in order for the rating agency to perform its analysis to fully determine the rating implications of the event.

Insurer Financial Strength Ratings

The following insurer financial strength ratings represent each rating agency's opinion of MetLife, Inc.'s principal insurance subsidiaries' ability to pay obligations under insurance policies and contracts in accordance with their terms and are not evaluations directed toward the protection of investors in MetLife, Inc.'s securities. Insurer financial strength ratings are not statements of fact nor are they recommendations to purchase, hold or sell any security, contract or policy. Each rating should be evaluated independently of any other rating.

Our insurer financial strength ratings at the date of this filing are indicated in the following table. Outlook is stable unless otherwise indicated. Additional information about financial strength ratings can be found on the websites of the respective rating agencies.

	A.M. Best	**Fitch**	**Moody's**	**S&P**
Ratings Structure	*"A++ (superior)" to "S (suspended)"*	*"AAA (exceptionally strong)" to "C (distressed)"*	*"Aaa (highest quality)" to "C (lowest rated)"*	*"AAA (extremely strong)" to "SD (Selective Default)" or "D (Default)"*
American Life Insurance Company	**NR**	**NR**	**A1** 5th of 21	**AA-** 4th of 22
Metropolitan Life Insurance Company	**A+** 2nd of 16	**AA-** 4th of 19	**Aa3** 4th of 21	**AA-** 4th of 22
MetLife Insurance K.K. (MetLife Japan)	**NR**	**NR**	**NR**	**AA-** 4th of 22
Metropolitan Tower Life Insurance Company	**A+** 2nd of 16	**AA-** 4th of 19	**Aa3** 4th of 21	**AA-** 4th of 22

NR = Not rated

See "Risk Factors — Economic Environment and Capital Markets Risks — A Downgrade or a Potential Downgrade in Our Financial Strength or Credit Ratings Could Result in a Loss of Business and Materially Adversely Affect Our Financial Condition and Results of Operations." See also "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Capital — Rating Agencies" for an in depth description of the impact of a ratings downgrade.

Competition

The life insurance industry remains highly competitive. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Competitive Pressures." We believe that the competition we face is based on a number of factors, including service, product features, scale, price, financial strength, claims-paying ratings, credit ratings, e-business capabilities and name recognition. We compete globally with a large number of other insurance companies, as well as non-insurance financial services companies, such as banks, broker-dealers and asset managers, for individual consumers, employer and other group customers, as well as agents and other distributors of insurance and investment products. Some of these companies offer a broader array of products, have more competitive pricing or, with respect to other insurance companies, have higher claims paying ability ratings. In the United States and Japan, we compete with a large number of domestic and foreign-owned life insurance companies, many of which offer products in categories on which we focus. Elsewhere, we compete with the foreign insurance operations of large U.S. insurers and with global insurance groups and local companies. Many of our group insurance products are underwritten annually and, accordingly, there is a risk that group purchasers may be able to obtain more favorable terms from competitors rather than renewing coverage with us.

We believe that the continued volatility of the financial markets and its impact on the capital position of many competitors will continue to strain the competitive environment. Although the U.S. regulatory environment has improved at the federal level, the life insurance industry continues to face challenges globally and, within the U.S., at the state level. In the current environment, we believe that financial strength, technological efficiency and organizational agility are the most significant differentiators and that we are building a company that is well positioned to succeed in any environment. For example, the Company primarily distributes its products through a variety of third-party distribution channels, including banks and broker-dealers. These distribution partners are currently placing greater emphasis on the financial strength of the company whose products they sell. An increase in bank and broker-dealer consolidation activity could increase competition for access to distributors. The effects of financial market volatility may also lead to consolidation in the life insurance industry.

Competition for employees in our industry is intense, and we need to be able to attract and retain highly skilled people with knowledge of our business and industry experience to support our business. In selected global markets, we continue to undertake several initiatives to grow our career agency forces, while continuing to enhance the efficiency and production of our sales representatives. These initiatives may not succeed in attracting and retaining productive agents. See "— Segments and Corporate & Other" for information on sales distribution.

Numerous aspects of our business are subject to regulation. Legislative and other changes affecting the regulatory environment can affect our competitive position within the life insurance industry and within the broader financial services industry. See "— Regulation."

Employees

At October 1, 2018, we had approximately 48,000 employees, calculated consistent with Regulation S-K Item 402(u) without exempting any employees under Regulation S-K Item 402(u)(4). We believe that our relations with our employees are satisfactory. We invest in our employees by continuing to create learning and development opportunities, promote inclusion, support work-life balance, and enhance ownership mindset. Fostering a culture of innovation and employee learning is fundamental to how we compete.

Executive Officers

Set forth below is information regarding the executive officers of MetLife, Inc.:

Name	Age	Position with MetLife and Business Experience
Steven A. Kandarian	66	• Chairman of the Board of MetLife, Inc. (January 2012-present) (Director of MetLife, Inc. since 2011)
		• President and Chief Executive Officer (May 2011-present) of MetLife, Inc.
		• Executive Vice President and Chief Investment Officer of MetLife, Inc. (April 2005-April 2011)
John D. McCallion	45	• Executive Vice President and Chief Financial Officer of MetLife, Inc. (August 2018-present)
		• Executive Vice President and Chief Financial Officer and Treasurer of MetLife, Inc. (May 2018-August 2018)
		• Executive Vice President and Treasurer of MetLife, Inc. (July 2016 - April 2018)
		• Senior Vice President and Chief Financial Officer, EMEA, of MetLife Group, Inc. (August 2014-June 2016)
		• Vice President and Chief Financial Officer, EMEA, of MLIC (September 2012 - July 2014)
Stephen W. Gauster	48	• Executive Vice President and General Counsel of MetLife, Inc. (May 2018-present)
		• Senior Vice President and Interim General Counsel of MetLife, Inc. (July 2017-May 2018)
		• Senior Vice President and Chief Counsel, General Corporate Section of the Law Department (January 2016-June 2017)
		• Senior Vice President, Chief Corporate Counsel and Assistant Secretary, Assurant, Inc., an insurance company (September 2008-December 2015)
Steven J. Goulart	60	• Executive Vice President and Chief Investment Officer of MetLife, Inc. (May 2011-present)
		• Head of the Portfolio Management Unit as Senior Managing Director of MLIC (January 2011-April 2011)
Michel A. Khalaf	54	• President, U.S. Business of MetLife, Inc. (July 2017-present)
		• President, EMEA of MetLife, Inc. (November 2011-present)
		• Executive Vice President of MLIC (January 2011-November 2011)
Esther S. Lee	60	• Executive Vice President and Global Chief Marketing Officer of MetLife, Inc. (January 2015-present)
		• Senior Vice President, Brand Marketing, Advertising and Sponsorships of AT&T, Inc., a communications company (August 2011-December 2014)
Martin J. Lippert	59	• Executive Vice President and Head of Global Technology and Operations of MetLife, Inc. (November 2011-present)
		• Executive Vice President and Head of Global Technology of MetLife, Inc. (September 2011-November 2011)
Susan M. Podlogar	55	• Executive Vice President and Chief Human Resources Officer of MetLife, Inc. (July 2017-present)
		• Vice President Human Resources Global Medical Devices, Human Resources Executive Committee, Johnson & Johnson, a medical devices, pharmaceutical and consumer products company (May 2016-June 2017)
		• Vice President Human Resources EMEA, Global Total Rewards, Human Resources Executive Committee, Johnson & Johnson (January 2015-May 2016)
		• Vice President Human Resources Global Total Rewards, Human Resources Executive Committee, Johnson & Johnson (January 2012-May 2015)
Kishore Ponnavolu	54	• President, Asia of MetLife, Inc. (September 2018-present)
		• Executive Vice President, MetLife Auto and Home (November 2013-August 2018)
Oscar A. Schmidt	59	• President of Latin America of MetLife, Inc. (May 2018-present)
		• Executive Vice President, Head of Latin America of MLIC (January 2010-April 2018)
Ramy Tadros	43	• Executive Vice President and Chief Risk Officer of MetLife, Inc. (September 2017-present)
		• Management Consultant, Oliver Wyman, Inc., a consulting company (September 1997-July 2017)

Trademarks

We have a worldwide trademark portfolio that we consider important in the marketing of our products and services, including, among others, the trademark "MetLife." We also have the exclusive global license to use the Peanuts® characters in the area of financial services under an advertising and premium agreement with Peanuts Worldwide, LLC up to December 31, 2019. As a result of the acquisition of American Life and Delaware American Life Insurance Company (collectively, "ALICO"), we acquired trademarks of American Life, including the "ALICO" trademark. In addition, as a result of our acquisition of ProVida, we acquired "PROVIDA" and other trademarks. We believe that our rights in our trademarks and under our Peanuts® characters license are well protected.

Available Information

MetLife files periodic reports, proxy statements and other information with the SEC. The SEC maintains an internet website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including MetLife, Inc.

MetLife makes available, free of charge, on its website (www.metlife.com) through the Investor Relations web page (http://investor.metlife.com), its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to all those reports, as soon as reasonably practicable after filing (furnishing) such reports to the SEC. MetLife encourages investors to visit the Investor Relations web page from time to time, where it announces additional financial and other information about it to its investors, including in news releases, public conference calls and webcasts. The information found on MetLife's website is not incorporated by reference into this Annual Report on Form 10-K or in any other report or document MetLife files with the SEC, and any references to MetLife's website are intended to be inactive textual references only.

Item 1A. Risk Factors

Economic Environment and Capital Markets Risks

Difficult Economic Conditions May Adversely Affect Our Business, Results of Operations and Financial Condition

Stressed conditions, volatility and disruptions in financial asset classes or various markets can have an adverse effect on us, in part because we have a large investment portfolio and our insurance liabilities are sensitive to changing market factors. Global market factors, including interest rates, credit spreads, equity prices, derivative prices and availability, real estate markets, foreign currency exchange rates, consumer spending, business investment, government spending, the volatility and strength of the capital markets, and deflation and inflation, and government actions taken in response to any of these factors, could all adversely affect our financial condition (including our liquidity and capital levels), our business operations and our ability to receive dividends from our insurance subsidiaries and meet our obligations at MetLife, Inc., by virtue of their impact on levels of economic activity, employment, customer behavior, or mismatched impacts on the value of our assets and our liabilities. Such factors could also have a material adverse effect on our results of operations, financial condition, liquidity or cash flows through realized investment losses, derivative losses, changes in insurance liabilities, impairments, increased valuation allowances, increases in reserves for future policyholder benefits, reduced net investment income and changes in unrealized gain or loss positions.

Sustained periods of low interest rates and risk asset returns could reduce income from our investment portfolio, increase our liabilities for claims and future benefits, and increase the cost of risk transfer measures such as hedging, causing our profit margins to erode as a result of reduced income from our investment portfolio and increase in insurance liabilities. In the event of extreme prolonged market events, such as a global credit crisis, a market downturn, or sustained low market returns we could incur significant capital or operating losses due to, among other reasons, losses incurred in our general account and as a result of the impact on us of guarantees, including increases in liabilities, capital maintenance obligations and collateral requirements associated with our affiliated reinsurers and other similar arrangements. Any of these events could also impair our financial strength ratings.

The demand for our financial and insurance products could be adversely affected by an economic downturn resulting in higher unemployment, lower family income, lower corporate earnings, lower business investment, lower consumer spending, elevated incidence of claims, adverse utilization of benefits relative to our best estimate expectations, lapses or surrenders of policies, and policyholders choosing to defer paying insurance premiums or stop paying insurance premiums altogether. Such adverse changes in the economy could negatively affect our earnings and capitalization and have a material adverse effect on our business, results of operations and financial condition.

Declining equity markets could decrease the account value of our variable insurance products and other products issued through separate accounts. Lower interest rates may result in lower returns in fixed income vehicles. Decreases in account values reduce certain fees generated by these products, which could increase the level of insurance liabilities we must carry to support such products issued with any associated guarantees, cause the amortization of deferred policy acquisition costs ("DAC") to accelerate, and require us to provide additional funding to our captive reinsurers.

See:

- "Business — Regulation;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Financial and Economic Environment;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Impact of a Sustained Low Interest Rate Environment;" and
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Current Environment."

Interest Rate Risk

Some of our products, principally traditional life, universal life, fixed annuities, GICs, funding agreements and structured settlements, expose us to the risk that changes in interest rates, including reductions in the difference between short-term and long-term interest rates, could reduce our investment margin or "spread," which could in turn reduce our net income.

In a low interest rate environment, we may be forced to reinvest proceeds from investments that have matured or have been prepaid or sold at lower yields, which could reduce our investment spread. Moreover, borrowers may prepay or redeem the fixed income securities and commercial, agricultural or residential mortgage loans in our investment portfolio with greater frequency in order to borrow at lower market rates, thereby exacerbating this risk. Although lowering interest crediting rates can help offset decreases in spreads on some products, our ability to lower these rates is limited to the portion of our in-force product portfolio that has adjustable interest crediting rates, and could be limited by competition or contractually guaranteed minimum rates and may not match the timing or magnitude of changes in asset yields. As a result, our spread could decrease or potentially become negative, which could have a material adverse effect on our results of operations and financial condition.

Significantly lower spreads may cause us to accelerate amortization, thereby reducing net income and potentially negatively affecting our credit instrument covenants or rating agency assessment of our financial condition. In addition, during periods of declining interest rates, life insurance and annuity products may be relatively more attractive investments to consumers. This could result in increased premium payments on products with flexible premium features, repayment of policy loans and increased persistency during a period when our new investments carry lower returns. A decline in market interest rates could also reduce our return on investments that do not support particular policy obligations. During periods of sustained lower interest rates, our reserves for policy liabilities may not be sufficient to meet future policy obligations and may need to be strengthened. Accordingly, declining and sustained lower interest rates may materially affect our results of operations, financial position, cash flows, and ability to take dividends from operating insurance companies, as well as significantly reduce our profitability.

Increases in interest rates could also negatively affect our profitability. In periods of rapidly increasing interest rates, we may not be able to replace, in a timely manner, the investments in our general account with higher yielding investments needed to fund the higher crediting rates necessary to keep interest rate sensitive products competitive. We therefore may have to accept a lower spread and thus lower profitability or face a decline in sales and greater loss of existing contracts and related assets. In addition, policy loans, surrenders and withdrawals may increase as policyholders seek investments with higher perceived returns as interest rates rise. This process may result in cash outflows requiring that we sell investments at a time when the prices of those investments are adversely affected by the increase in interest rates, which may result in realized investment losses. Unanticipated withdrawals, terminations and substantial policy amendments may cause us to accelerate the amortization of DAC and value of business acquired ("VOBA"), which reduces net income and potentially negatively affects our credit instrument covenants and rating agency assessment of our financial condition, and may also cause us to accelerate the amortization of negative VOBA, which increases net income. An increase in interest rates could also have a material adverse effect on the value of our investment portfolio, for example, by decreasing the estimated fair values of fixed income securities. Additionally, an increase in interest rates could increase our daily settlement payments on interest rate futures and cleared swaps, which may result in increased cash outflows and increase our liquidity needs. Furthermore, if interest rates rise, our unrealized gains on fixed income securities would decrease and our unrealized losses would increase, perhaps substantially. The accumulated change in estimated fair value of these fixed income securities would be recognized in net income when a gain or loss is realized upon the sale of the security or if the decline in estimated fair value is determined to be other than temporary and an impairment charge to earnings is taken. Finally, an increase in interest rates could result in decreased fee income associated with a decline in the value of variable annuity account balances invested in fixed income funds.

Actions resulting from the monetary policies of the Federal Reserve Board and of central banks around the world, including with respect to interest rates, may also impact the pricing levels of risk-bearing investments and may adversely impact the income we earn on our investments or the level of product sales.

Although we take measures to manage the economic risks of investing in a changing interest rate environment, we may not be able to mitigate the interest rate risk of our fixed income investments relative to our interest rate sensitive liabilities. For some of our liability portfolios it is not possible to invest assets to the full liability duration, thereby creating some asset/liability mismatch. In addition, asymmetrical and non-economic accounting may cause material changes to our net income and stockholders' equity in any given period because our non-qualified derivatives are recorded at fair value through earnings, while the related hedged items either follow an accrual-based accounting model, such as insurance liabilities, or are recorded at fair value through other comprehensive income.

Regulators, law enforcement agencies, or the ICE Benchmark Association (the current administrator of LIBOR) may take actions resulting in changes to the way LIBOR is determined, the discontinuance of reliance on LIBOR as a benchmark rate or the establishment of alternative reference rates. The U.K. Financial Conduct Authority has announced that it intends to stop persuading or compelling banks to submit LIBOR rates after 2021. The Federal Reserve Bank of New York has begun publishing a Secured Overnight Funding Rate ("SOFR"), which is intended to replace U.S. dollar LIBOR, and central banks in several other jurisdictions have also announced plans for alternative reference rates for other currencies. At this time, we cannot predict how markets will respond to these new rates, and we cannot predict the effect of any changes to or discontinuation of LIBOR on new or existing financial instruments to which we have exposure. Any changes to or discontinuation of LIBOR may have an adverse effect on interest rates on certain derivatives and floating-rate securities we hold, securities we have issued, or other assets or liabilities whose value is tied to LIBOR or to a LIBOR alternative. Any uncertainty regarding the continued use and reliability of LIBOR could adversely affect the value of such instruments. Furthermore, changes to or the discontinuation of LIBOR may impact other aspects of our business, including products, pricing, and models. Any change to or discontinuation of similar benchmark rates besides LIBOR could have similar effects.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Impact of a Sustained Low Interest Rate Environment;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Current Environment;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Fixed Maturity Securities AFS and Equity Securities;" and
- Note 9 of the Notes to the Consolidated Financial Statements.

Credit Spread Risk

Changes in credit spreads may result in market price volatility and cash flow variability. Market price volatility can make it difficult to value certain of our securities if trading becomes less frequent. In such case, valuations may include assumptions or estimates that may have significant period-to-period changes, which could have a material adverse effect on our results of operations or financial condition and may require additional reserves. Significant volatility in the markets could cause changes in credit spreads and defaults and a lack of pricing transparency, which could have a material adverse effect on our results of operations, financial condition, liquidity or cash flows. An increase in credit spreads relative to U.S. Treasury benchmarks can also adversely affect the cost of our borrowing should we need to access credit markets.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Investment Risks."

Equity Risk

Downturns and volatility in equity markets can have a material adverse effect on the revenues and investment returns from our savings and investment products and services, where fee income is earned based upon the estimated fair value of the assets that we manage. The variable annuity business in particular is highly sensitive to equity markets, and a sustained weakness or stagnation in the equity markets could decrease revenues and earnings with respect to those products. Furthermore, certain of our variable annuity products offer guaranteed benefits that increase our potential benefit exposure should equity markets decline or stagnate.

Sustained declines in long-term equity returns or interest rates likely would have a negative effect on the funded status of our pension plans and other postretirement benefit obligations. An increase in equity markets could increase settlement payments on equity futures, which may result in increased cash outflows and increase our liquidity needs.

The timing of distributions from and valuations of leveraged buy-out funds, hedge funds and other private equity funds in which we invest can be difficult to predict and depends on the performance of the underlying investments, the funds' schedules for making distributions, and their needs for cash. As a result, the amount of net investment income from these investments can vary substantially from period to period. Significant volatility could adversely impact returns and net investment income on these alternative investment classes. In addition, the estimated fair value of such alternative investments or equity securities we hold may be adversely impacted by downturns or volatility in equity markets.

See "Quantitative and Qualitative Disclosures About Market Risk."

Real Estate Risk

Our investments in commercial, agricultural and residential mortgage loans, and our investments in real estate and real estate joint ventures, can be adversely affected by changes in the supply and demand of leasable commercial space, creditworthiness of tenants and partners, capital markets volatility, interest rate fluctuations, commodity prices, farm incomes and housing and commercial property market conditions. These factors, which are beyond our control, could have a material adverse effect on our results of operations, financial condition, liquidity or cash flows.

Obligor and Counterparty Risk

Our general account investments in certain countries, which we maintain to support our insurance operations and related policyholder liabilities in these countries and as part of our global portfolio diversification, could be adversely affected by volatility resulting from local economic and political concerns, as well as volatility in specific sectors. Additionally, U.S. states, municipalities may face budget deficits and other financial difficulties, which could have an adverse impact on the value of securities we hold issued by and political subdivisions or under the auspices of such U.S. states, municipalities and political subdivisions.

The issuers or guarantors of fixed income securities and mortgage loans we own may default on principal and interest payments they owe us. Additionally, the underlying collateral within asset-backed securities, including mortgage-backed securities, may default on principal and interest payments causing an adverse change in cash flows. The occurrence of a major economic downturn, acts of corporate malfeasance, widening credit spreads, or other events that adversely affect the issuers, guarantors or underlying collateral of these securities and mortgage loans could cause the estimated fair value of our portfolio of fixed income securities and mortgage loans and our earnings to decline and the default rate of the fixed income securities and mortgage loans in our investment portfolio to increase.

Many of our transactions with counterparties such as brokers and dealers, central clearinghouses, commercial banks, investment banks, hedge funds and investment funds and other financial institutions expose us to the risk of counterparty default. Such credit risk may be exacerbated if we cannot realize the collateral held by us in secured transactions or cannot liquidate such collateral at prices sufficient to recover the full amount of the loan or derivative exposure due to us. Furthermore, potential action by governments and regulatory bodies, such as investment, nationalization, conservatorship, receivership and other intervention, whether under existing legal authority or any new authority that may be created, or lack of action by governments and central banks, as well as deterioration in the banks' credit standing, could negatively impact these instruments, securities, transactions and investments or limit our ability to trade with them. Any such losses or impairments to the carrying value of these investments or other changes may materially and adversely affect our business and results of operations.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Financial and Economic Environment" and
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Current Environment — Selected Country and Sector Investments."

Currency Exchange Rate Risk

We are exposed to risks associated with fluctuations in foreign currency exchange rates against the U.S. dollar resulting from our holdings of non-U.S. dollar denominated investments, investments in foreign subsidiaries, net income from non-U.S. operations and issuance of non-U.S. dollar denominated instruments, including GICs and funding agreements. In general, the weakening of foreign currencies versus the U.S. dollar will adversely affect the estimated fair value of our non-U.S. dollar denominated investments, our investments in non-U.S. subsidiaries, and our net income from non-U.S. operations. Fluctuations in foreign currency exchange rates may make certain of our products less attractive to customers, particularly products denominated in a currency that is not the local currency of the market in which such products are sold, which may increase levels of early policy terminations and decrease sales volume and our amount of business in force. The negative effects described above may be exacerbated if international markets, particularly emerging markets, experience severe economic or financial disruptions or significant currency devaluations, if a foreign economy is determined to be "highly inflationary," or if a country withdraws from the Euro zone. Fluctuations in foreign currency exchange rates could thus have a material adverse effect on our operations, earnings and investments in the affected countries.

We may be unable to mitigate the risk of such changes in exchange rates due to unhedged positions, asymmetrical and non-economic accounting resulting from derivative gains (losses) on non-qualifying hedges, the failure of hedges to effectively offset the impact of the foreign currency exchange rate fluctuation, or other factors. Even if foreign currency denominated liabilities are matched with investments denominated in the respective foreign currencies, fluctuations in currency exchange rates may adversely affect the translation of results into our U.S. dollar basis consolidated financial statements.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Executive Summary — Other Key Information — Argentina Highly Inflationary" and
- "Quantitative and Qualitative Disclosures About Market Risk."

Derivatives Risk

If our counterparties, clearing brokers or central clearinghouses fail or refuse to honor their obligations under our derivatives, our hedges of the related risk will be ineffective. A counterparty's or central clearinghouse's insolvency, inability or unwillingness to make payments under the terms of derivatives agreements or inability or unwillingness to return collateral could have a material adverse effect on our financial condition and results of operations, including our liquidity. If the net estimated fair value of a derivative to which we are a party declines, we may be required to pledge collateral or make payments related to such decline. In addition, ratings downgrades or financial difficulties of derivative counterparties may require us to utilize additional capital with respect to the impacted businesses. Furthermore, the valuation of our derivatives could change based on changes to our valuation methodology or the discovery of errors in such valuation or valuation methodology.

See:

- "Business — Regulation — Derivatives Regulation" and
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Derivatives."

Terrorism and Security Risks

The continued threat of terrorism, both within the U.S. and abroad, ongoing military and other actions, potential military conflicts, and heightened security measures in response to these types of threats may cause significant volatility in global financial markets and result in loss of life, property damage, additional disruptions to commerce and reduced economic activity. The value of our investment portfolio may be adversely affected by declines in the credit and equity markets and reduced economic activity caused by such threats. Companies in which we maintain investments may suffer losses as a result of financial, commercial or economic disruptions, and such disruptions might affect the ability of those companies to pay interest or principal on their securities or mortgage loans. Terrorist or military actions also could disrupt our operations centers and result in higher than anticipated claims under our insurance policies.

Adverse Capital and Credit Market Conditions May Significantly Affect Our Ability to Meet Liquidity Needs, Our Access to Capital and Our Cost of Capital

Volatility, disruptions, or other conditions in global capital markets could also have an adverse impact on our capital, credit capacity, and liquidity. If our stress-testing indicates that such conditions could have an impact beyond expectations, or our business otherwise requires, we may have to seek additional financing, the availability and cost of which could be adversely affected by market conditions, regulatory considerations, availability of credit to our industry generally, our credit ratings and credit capacity, and the perception of our customers and lenders regarding our long- or short-term financial prospects if we incur large operating or investment losses or if the level of our business activity decreases due to a market downturn. Similarly, our access to funds may be impaired if regulatory authorities or rating agencies take negative actions against us. Our internal sources of liquidity may prove to be insufficient and, in such case, we may not be able to successfully obtain additional financing on favorable terms or at all. Our liquidity requirements may change if, among other things, we are required to return significant amounts of cash collateral on short notice under securities lending or derivatives agreements or we are required to post collateral or make payments related to specified counterparty agreements.

Without sufficient liquidity, our ability to pay claims, other operating expenses, interest on our debt and dividends on our capital stock, to provide our subsidiaries with cash or collateral, to maintain our securities lending activities, to replace certain maturing liabilities, to sustain our operations and investments, and to repurchase our common stock could be adversely affected, and our business and financial results may suffer. Disruptions, uncertainty or volatility in the capital and credit markets may also limit our access to capital needed to operate our business, most significantly in our insurance operations. Such market conditions may limit our ability to replace, in a timely manner, maturing liabilities, satisfy regulatory capital requirements, and access the capital necessary to grow our business. As a result, we may be forced to delay raising capital, issue different types of securities than we would have otherwise, less effectively deploy such capital, issue shorter tenor securities than we prefer, or bear an unattractive cost of capital, which could decrease our profitability and significantly reduce our financial flexibility. Our results of operations, financial condition, cash flows and statutory capital position could be materially adversely affected by disruptions in the financial markets.

See:

- “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Investments — Securities Lending and Repurchase Agreements;” and
- “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Liquidity.”

An Inability to Access Our Credit Facility Could Result in a Reduction in Our Liquidity and Lead to Downgrades in Our Credit and Financial Strength Ratings

Our failure to comply with or fulfill all conditions and covenants under the unsecured credit facility (the “Credit Facility”) maintained by MetLife, Inc. and MetLife Funding, Inc. (“MetLife Funding”), or the failure of lenders to fund their lending commitments (whether due to insolvency, illiquidity or other reasons) in the amounts provided for under the terms of the Credit Facility, could restrict our ability to access the Credit Facility when needed. This could adversely affect our ability to meet our obligations as they come due and our credit and financial strength ratings, and could thus have a material adverse effect on our liquidity, financial condition and results of operations.

See:

- “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Liquidity and Capital Sources — Global Funding Sources — Credit and Committed Facilities” and
- Note 12 of the Notes to the Consolidated Financial Statements.

A Downgrade or a Potential Downgrade in Our Financial Strength or Credit Ratings Could Result in a Loss of Business and Materially Adversely Affect Our Financial Condition and Results of Operations

Nationally Recognized Statistical Rating Organizations ("NRSROs") and similar entities could downgrade our insurance companies' financial strength ratings or our credit ratings, or lower our ratings outlooks, at any time and without notice. Such changes could have a material adverse effect on our financial condition and results of operations in many ways, including:

- reducing new sales of insurance products, annuities and other investment products;
- impacting the cost and availability of financing for MetLife, Inc. and its subsidiaries;
- adversely affecting our relationships with our sales force and independent sales intermediaries;
- materially increasing the number or amount of policy surrenders and withdrawals by contractholders and policyholders;
- requiring us to post collateral, including additional collateral under certain of our financing and derivative transactions;
- requiring us to reduce prices for many of our products and services to remain competitive;
- providing termination rights for the benefit of our derivative instrument counterparties;
- adversely affecting our ability to obtain reinsurance at reasonable prices or at all;
- limiting our access to the capital markets;
- increasing the cost of debt; and
- subjecting us to increased regulatory scrutiny.

NRSROs may heighten the level of scrutiny that they apply to insurance companies, increase the frequency and scope of their credit reviews, request additional information from the companies that they rate, and adjust upward the capital and other requirements employed in the models for maintenance of certain ratings levels.

See:

- "Business — Company Ratings;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Pledged Collateral;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Capital — Rating Agencies;" and
- Note 9 of the Notes to the Consolidated Financial Statements.

Reinsurance May Not Be Available, Affordable or Adequate to Protect Us Against Losses

Market conditions beyond our control determine the availability and cost of reinsurance protection for new business, and in certain circumstances, the price of reinsurance for business already reinsured may also increase. Any decrease in the amount of reinsurance will increase our risk of loss, and any increase in the cost of reinsurance will, absent a decrease in the amount of reinsurance, reduce our earnings. Accordingly, we may be forced to incur additional expenses for reinsurance or may not be able to obtain sufficient reinsurance on acceptable terms, which could adversely affect our ability to write future business or result in the assumption of more risk with respect to the policies we issue.

Because reinsurance does not relieve us of our direct liability to policyholders, a reinsurer's insolvency, inability or unwillingness to make payments under the terms of a reinsurance agreement, or a reinsurer's inability or unwillingness to maintain collateral, could have a material adverse effect on our financial condition and results of operations, including our liquidity.

See "Business — Reinsurance Activity."

Our Statutory Life Insurance Reserve Financings May Be Subject to Cost Increases, and New Financings May Be Subject to Limited Market Capacity

Certain of our financing facilities that support statutory life insurance reserves for previously written business are subject to cost increases upon the occurrence of specified ratings downgrades of MetLife or are subject to periodic re-pricing. Any resulting cost increases could negatively impact our financial results. Furthermore, future capacity for such statutory reserve financing structures in the marketplace is not guaranteed. If types of assets permitted under current regulations are not available in the future to back statutory reserves, as a result of new legislation or regulations or otherwise, we would not be able to take some or all statutory reserve credit for such transactions, which could materially and adversely affect the statutory capitalization of certain of our insurance subsidiaries.

See:

- "Business — Regulation — Insurance Regulation — NAIC" and
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Capital — Affiliated Captive Reinsurance Transactions."

Regulatory and Legal Risks

Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition

Our businesses are subject to a wide variety of insurance and other laws and regulations in the jurisdictions in which they operate across the world. Authorities and regulators may take actions or make decisions, including implementing or modifying licensing, permit, or approval requirements, that may negatively affect our business. They may also take actions or make decisions that adversely affect our customers and independent sales intermediaries or their operations, which may affect our business relationships with them and their ability to purchase or distribute our products, and thus may negatively affect our business in a variety of jurisdictions. The overall regulatory environment (or changes to that environment) in the countries in which we operate, and changes in laws in those jurisdictions, could have a material adverse effect on our results of operations.

We cannot predict with any certainty the impact on our business, financial condition or results of operations of changes to legislative or administrative policies that can affect insurance, such as policies regarding financial services regulation, securities regulation, derivatives regulation, pension regulation, health care regulation, privacy, tort reform legislation and taxation, or any new legislation or regulatory changes that may be adopted. From time to time, regulators raise issues during examinations or audits of MetLife, Inc.'s regulated subsidiaries that could, if determined adversely, have a material impact on us. In addition, changing interpretations of regulations by regulators and statutes may be enacted with retroactive impact, particularly in areas such as accounting or statutory reserve requirements, may adversely affect our businesses. Further, a particular regulator or other governmental authority may interpret a law, regulation or accounting principle differently than we have, exposing us to different or additional risks. Compliance with applicable laws and regulations, including regulatory and securities filings requirements, is time consuming and personnel-intensive, and changes in these laws and regulations may materially increase our direct and indirect compliance and other expenses of doing business. Additionally, any failure to strictly comply with regulatory or securities filing requirements, or any other legal or regulatory requirements, could harm our reputation or result in regulatory sanctions or legal claims. Changes to or failure to comply with applicable laws and regulations could thus have a material adverse effect on our financial condition and results of operations.

In addition, solvency standards under development in several markets may impact our capital requirements, risk management infrastructure and reporting. Furthermore, there can be no assurance that MetLife will not in the future be subject to enhanced capital standards, supervision and additional requirements, such as G-SII requirements or other group capital standards or insurer capital standards. Under provisions of Dodd-Frank, if MetLife, Inc. were to become insolvent or were in danger of defaulting on its obligations and it was determined that such default would have serious effects on financial stability in the U.S., MetLife, Inc. could be compelled to undergo liquidation with the FDIC as receiver. If the FDIC were appointed as the receiver, liquidation would occur under the provisions of the new liquidation authority and not under the Bankruptcy Code. In an FDIC-managed liquidation, our shareholders and unsecured creditors could bear greater losses than they would in a liquidation under the Bankruptcy Code. These provisions could also apply to financial institutions whose debt securities we hold in our investment portfolio and could adversely affect our position as a creditor and the value of our holdings. We could also be subject to assessment of charges to cover the costs of liquidating any financial company subject to the new liquidation authority, which could have a material adverse effect on our financial condition.

Changes to the laws and regulations that govern the conduct of our variable and registered fixed insurance products business and the firms that distribute these products could adversely affect our operations and profitability. Such changes could increase our regulatory and compliance burden, resulting in increased costs, or limit the type, amount or structure of compensation arrangements into which we may enter with certain of our associates, which could negatively impact our ability to compete with other companies in recruiting and retaining key personnel. Additionally, our ability to react to rapidly changing economic conditions and the dynamic, competitive market for variable and registered fixed products will depend on the continued efficacy of provisions we have incorporated into our product design allowing frequent and contemporaneous revisions of key pricing elements, as well as our ability to work collaboratively with securities regulators. Changes in regulatory approval processes, rules and other dynamics in the regulatory process could adversely impact our ability to react to such changing conditions.

We also cannot predict with certainty the impact of rules, should they take effect, substantially expanding the definition of "investment advice" and imposing an impartial or "best interests" standard in providing such advice, thereby broadening the circumstances under which MetLife or its representatives could be deemed a fiduciary under ERISA or the Code, or amendments to certain prohibited transaction exemptions, will have on our products and services to certain employee benefit plans that are subject to ERISA or the Code. Furthermore, we cannot predict the impact that "best interest" standards recently proposed by various regulators may have on our business, results of operations, or financial condition. Compliance with new or changed rules or legislation in this area may increase our regulatory burden and that of our independent sales intermediaries, require changes to our compensation practices and product offerings, and increase litigation risk, which could adversely affect our results of operations and financial condition.

Laws, regulations, or regulatory actions regarding health care and other areas may also adversely affect our ability to continue to offer our products, including non-medical health and dental insurance products, in the same manner as we do today and may result in increased and unpredictable costs to provide certain products, thereby harming our competitive position. We are unable to predict how future changes, if any, to laws or regulations may affect us or the products that we offer.

We provide employment-related benefits to our associates and to certain of our retirees under complex plans that are subject to a variety of regulatory requirements. If laws, regulations or regulatory actions result in changes to those benefits, it could adversely affect our ability to attract, retain and motivate our associates. Such laws, regulations and regulatory actions could also result in increased or unpredictable costs to provide employee benefits, and could harm our competitive position if we are subject to fees, penalties, tax provisions or other limitations and our competitors are not.

In addition, rules on defined benefit pension plan funding may negatively impact the likelihood or timing of corporate plan sponsors terminating their plans or engaging in transactions to partially or fully transfer pension obligations to an insurance company. Consequently, such rules could indirectly affect the mix of our business, resulting in fewer pension risk transfers and more non-guaranteed funding products, and could adversely impact our results of operations.

Changes in laws and regulations that affect our customers and independent sales intermediaries or their operations also may affect our business relationships with them and their ability to purchase or distribute our products. Such actions may negatively affect our business and results of operations.

If our associates fail to adhere to regulatory requirements or our policies and procedures, we may be subject to penalties, restrictions or other sanctions by applicable regulators, and we may suffer reputational harm.

See "Business — Regulation," as supplemented by discussions of regulatory developments in our subsequently filed Quarterly Reports on Form 10-Q under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Regulatory Developments."

Changes in Tax Laws or Interpretations of Such Laws Could Reduce Our Earnings and Materially Impact Our Operations by Increasing Our Corporate Taxes and Making Some of Our Products Less Attractive to Consumers

Changes in tax laws or interpretations of such laws could increase our corporate taxes and reduce our earnings. Global budget deficits make it likely that governments' need for additional offsetting revenue will result in future tax proposals that will increase our effective tax rate or have product implications. However, it remains difficult to predict the timing and effect that future tax law changes could have on our earnings. Such changes could not only directly impact our corporate taxes but also could adversely impact our products (including life insurance and retirement plans) by making some of our products less attractive to consumers. A shift away from life insurance and annuity contracts and other tax-deferred products by our customers would reduce our income from sales of these products, as well as the asset base upon which we earn investment income and fees, thereby reducing our earnings and potentially affecting the value of our deferred tax assets.

The precise impact of certain provisions of U.S. Tax Reform is still uncertain. For instance, many regulations under the new law have not been finalized or have only recently been finalized, including certain rules on international taxation. U.S. Tax Reform thus contains provisions whose meaning is subject to differing interpretations, and future guidance may materially differ from our current interpretation.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Executive Summary — Overview — U.S. Tax Reform" and
- Note 18 of the Notes to the Consolidated Financial Statements.

Litigation and Regulatory Investigations Are Increasingly Common in Our Businesses and May Result in Significant Financial Losses and Harm to Our Reputation

We face a significant risk of litigation and regulatory investigations and actions in the ordinary course of operating our businesses. Plaintiffs' lawyers may bring or are bringing class actions and individual suits alleging, among other things, issues relating to sales or underwriting practices, claims payments and procedures, product design, disclosure, administration, investments, denial or delay of benefits and breaches of fiduciary or other duties to customers. Plaintiffs in class action and other lawsuits against us may seek very large or indeterminate amounts, including punitive and treble damages. Due to the vagaries of litigation, the outcome of a litigation matter and the amount or range of potential loss at particular points in time may often be difficult to ascertain. Uncertainties can include how fact finders will evaluate documentary evidence and the credibility and effectiveness of witness testimony, and how trial and appellate courts will apply the law in the context of the pleadings or evidence presented, whether by motion practice, or at trial or on appeal. In addition, a court or other governmental authority may interpret a law, regulation or accounting principle differently than we have, exposing us to different or additional risks. Disposition valuations are also subject to the uncertainty of how opposing parties and their counsel will themselves view the relevant evidence and applicable law.

A substantial legal liability or a significant federal, state or other regulatory action against us, as well as regulatory inquiries or investigations, could harm our reputation, result in material fines or penalties, result in significant legal costs and otherwise have a material adverse effect on our business, financial condition and results of operations. Even if we ultimately prevail in the litigation, regulatory action or investigation, our ability to attract new customers, retain our current customers and recruit and retain associates could be materially and adversely impacted. Regulatory inquiries and litigation may also cause volatility in the price of stocks of companies in our industry.

Current claims, litigation, unasserted claims probable of assertion, investigations and other proceedings against us could have a material adverse effect on our business, financial condition or results of operations. It is also possible that related or unrelated claims, litigation, unasserted claims probable of assertion, investigations and proceedings may arise or be commenced in the future, and we could become subject to further investigations, lawsuits, or enforcement actions. Increased regulatory scrutiny and any resulting investigations or proceedings could result in new legal actions and precedents and industry-wide regulations that could adversely affect our business, financial condition and results of operations.

Material pending litigation and regulatory matters affecting us and risks to our business presented by these proceedings are discussed in Note 20 of the Notes to the Consolidated Financial Statements. Updates are provided in the notes to our interim condensed consolidated financial statements regarding contingencies, commitments and guarantees included in our subsequently filed quarterly reports on Form 10-Q, as well as in Part II, Item 1 ("Legal Proceedings") of those quarterly reports.

Capital Risks

Legal and Regulatory Restrictions May Prevent Us from Paying Dividends and Repurchasing Our Stock at the Level We Wish

There is no assurance that we will declare and pay any dividends or repurchase any of our common stock. Dividends are subject to the discretion of our Board of Directors and will depend on our financial condition, results of operations, cash requirements, future prospects, regulatory restrictions on the payment of dividends by MetLife, Inc.'s insurance subsidiaries and other factors deemed relevant by the Board. Common stock repurchases are also subject to the discretion of our Board of Directors and will depend upon our capital position, liquidity, financial strength and credit ratings, general market conditions, the market price of our common stock compared to management's assessment of the stock's underlying value, applicable regulatory approvals, and other legal and accounting factors.

Terms applicable to our Floating Rate Non-Cumulative Preferred Stock, Series A (the "Series A preferred stock"), junior subordinated debentures and trust securities may restrict our ability to pay dividends or interest on those instruments in certain circumstances. MetLife is also permitted under the terms of our junior subordinated debentures to suspend payments of interest during certain periods of time. Such suspension of payments, whether required or optional, could cause "dividend stopper" provisions applicable under those and other instruments to restrict our ability to pay dividends on our common stock and repurchase our common stock in various situations, including situations where we may be experiencing financial stress, and may restrict our ability to pay dividends or interest on our preferred stock and junior subordinated debentures as well. Replacement capital covenants may limit our ability to eliminate some of these restrictions through the repayment, redemption or purchase of junior subordinated debentures.

Under Rule 10b5-1 of the Exchange Act, we may be restricted from repurchasing shares or entering into share repurchase programs when we are aware of material non-public information. These restrictions may limit our ability to repurchase shares from time to time, including but not limited to periods of significant corporate reorganization.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — MetLife, Inc. — Liquidity and Capital Sources — Dividends from Subsidiaries" and
- "Dividend Restrictions" in Note 15 of the Notes to the Consolidated Financial Statements.

As a Holding Company, MetLife, Inc. Depends on the Ability of Its Subsidiaries to Pay Dividends, a Major Component of Holding Company Free Cash Flow

If the cash MetLife, Inc. receives from its subsidiaries through dividends and permitted payments under the tax sharing agreement with its subsidiaries is insufficient for it to fund its debt service and other holding company obligations, MetLife, Inc. may be required to raise cash through the incurrence of debt, the issuance of additional equity or the sale of assets. If MetLife, Inc.'s operating subsidiaries are unable to make expected dividend payments to MetLife, Inc., we may be unable to meet our free cash flow goals, and our ability to distribute cash to shareholders could be adversely affected.

Dividends to MetLife, Inc. by its insurance subsidiaries in excess of prescribed limits generally require insurance regulatory approval. In addition, insurance regulators may prohibit the payment of dividends or other payments to MetLife, Inc. by its insurance subsidiaries if they determine that the payment could be adverse to our policyholders or contractholders. The payment of dividends and other distributions by insurance companies may also be limited by business conditions and rating agency considerations. Furthermore, any payment of interest, dividends, distributions, loans or advances by our foreign subsidiaries and branches to MetLife, Inc. could be subject to taxation, insurance regulatory or other restrictions on dividends or repatriation of earnings under applicable law, monetary transfer restrictions and foreign currency exchange regulations in the jurisdiction in which such foreign subsidiaries operate.

Net worth maintenance or other support agreements, which MetLife, Inc. or its subsidiaries may from time to time establish with their subsidiaries, may require MetLife, Inc. or such other supporting subsidiary to transfer capital to such supported subsidiary, thereby limiting capital that is available for other purposes.

See:

- "Business — Regulation —Insurance Regulation — Surplus and Capital;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — MetLife, Inc. — Liquidity and Capital Sources — Dividends from Subsidiaries;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — MetLife, Inc. — Liquidity and Capital Uses — Support Agreements;" and
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Non-GAAP and Other Financial Disclosures."

Investment Risks

Defaults, Downgrades, Volatility or Other Events May Adversely Affect the Investments We Hold, Resulting in a Reduction in Our Net Income and Profitability

A major economic downturn, acts of corporate malfeasance, widening credit risk spreads, ratings downgrades or other events could adversely affect the issuers or guarantors of securities or the underlying collateral of structured securities that we hold, which could cause the estimated fair value of our fixed income securities portfolio and corresponding earnings to decline and the default rate of the fixed income securities in our investment portfolio to increase. Similarly, a ratings downgrade affecting a security we hold could require us to hold more capital to support that security in order to maintain our RBC levels. Our intent to sell, or our assessment of the likelihood that we will be required to sell, fixed income securities may adversely impact levels of writedowns or impairments. Realized losses or impairments on these securities may have a material adverse effect on our net income in a particular quarterly or annual period.

An increase in the default rate of our mortgage loan investments or fluctuations in their performance could have a material adverse effect on our business, results of operations and financial condition. Substantially all of our commercial and agricultural mortgage loans held for investment have balloon payment maturities, which may increase the risk of default. Any geographic or property type concentration of our mortgage loans may have adverse effects on our investment portfolio and consequently on our results of operations or financial condition, and our ability to sell assets relating to such particular groups of related assets may be limited if other market participants are seeking to sell at the same time. In addition, legislation that would allow or require modifications to the terms of mortgage loans could have an adverse effect on our investment portfolio, results of operations or financial condition.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Mortgage Loans."

We May Have Difficulty Selling Certain Holdings in Our Investment Portfolio or in Our Securities Lending Program in a Timely Manner and Realizing Full Value

There may be a limited market for certain investments we hold in our investment portfolio, making them relatively illiquid. These include privately-placed fixed income securities, certain derivative instruments, mortgage loans, policy loans, direct financing and leveraged leases, other limited partnership interests, tax credit and renewable energy partnerships and real estate equity, including real estate joint ventures and funds. Even some of our very high quality investments may experience reduced liquidity during periods of market volatility or disruption. If we are forced to sell certain assets in our investment portfolio during periods of market volatility or disruption, market prices may be lower than our carrying value in such investments, and we may have difficulty selling such investments in a timely manner, be forced to sell investments in a volatile or illiquid market for less than we otherwise would have been able to realize under normal market conditions, or both. This may result in realized losses that could have a material adverse effect on our results of operations and financial condition, as well as our financial ratios, which could in turn affect compliance with our credit instruments and rating agency capital adequacy measures.

We may face similar risks if we are required under our securities lending program to return significant amounts of cash collateral that we have invested. If we decrease the amount of our securities lending activities over time in response to such risks, the amount of net investment income generated by these activities will also likely decline.

Our Requirements to Pledge Collateral or Make Payments Related to Declines in Estimated Fair Value of Derivatives Transactions or Specified Assets in Connection with OTC-Cleared and OTC-Bilateral Transactions May Adversely Affect Our Liquidity, Expose Us to Central Clearinghouse and Counterparty Credit Risk, and Increase our Costs of Hedging

The amount of collateral we may be required to pledge and the payments we may be required to make under our derivatives transactions may increase under certain circumstances. The OCC, the Federal Reserve Board, FDIC, Prudential Regulators, the CFTC, central clearinghouses and counterparties may restrict or eliminate certain types of eligible collateral or charge us to pledge such non-cash collateral, which would increase our costs and could adversely affect the liquidity of our investments and the composition of our investment portfolio.

See:

- "Business — Regulation — Derivatives Regulation;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Pledged Collateral;" and
- Note 9 of the Notes to the Consolidated Financial Statements.

Changes to Our Valuation of Securities and Investments, the Allowances and Impairments Taken on Our Investments, and Our Methodologies, Estimations and Assumptions Could Materially Adversely Affect Our Results of Operations or Financial Condition

Considerable judgment is often required in interpreting market data to develop estimates of fair value, and the use of different assumptions or valuation methodologies may have a material effect on the estimated fair value amounts. During periods of market disruption, including periods of significantly rising or high interest rates, rapidly widening credit spreads or illiquidity, or if trading becomes less frequent or market data becomes less observable, it may be difficult to value certain of our securities, and certain asset classes may become illiquid. In such cases, our valuations may be based on inputs that are less observable and more subjective, which may result in estimated fair values that significantly exceed the amount at which the investments may ultimately be sold. Furthermore, rapidly changing credit and equity market conditions could materially and adversely impact the valuation of securities as reported within our consolidated financial statements, and the period-to-period changes in estimated fair value could vary significantly. Historical trends may not be indicative of future impairments or allowances. Decreases in the estimated fair value of securities we hold may have a material adverse effect on our results of operations or financial condition.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments" and
- Notes 1, 8 and 10 of the Notes to the Consolidated Financial Statements.

Business Risks

Differences Between Actual Claims Experience and Underwriting and Reserving Assumptions May Adversely Affect Our Financial Results

Our earnings significantly depend upon the extent to which our actual claims experience is consistent with the assumptions we use in setting prices for our products and establishing liabilities for future policy benefits and claims. To the extent that actual claims experience is less favorable than the underlying assumptions we used in establishing such liabilities, we could be required to reduce DAC or VOBA, increase our liabilities or incur higher costs.

We cannot determine precisely the amounts that we will ultimately pay to settle our liabilities, particularly when those payments may not occur until well into the future. We evaluate our actual experience and liabilities periodically based on accounting requirements, and that evaluation can result in a change to liability assumptions that may increase our liabilities. Reserve estimates in some instances are also affected by our operating practices and procedures that are used, among other things, to support our assumptions with respect to the Company's obligations to its policyholders and contractholders. These practices and procedures include, among other things, obtaining, accumulating, and filtering data, and our use of technology, such as database analysis and electronic communications. To the extent that these practices and procedures do not accurately produce the data to support our assumptions or cause us to change our assumptions, or to the extent that enhanced technological tools become available to us, such assumptions and procedures, as well as our reserves, may require adjustment. Furthermore, to the extent that any of our operating practices and procedures do not accurately produce, or reproduce, data that we use to conduct any or all aspects of our business, such errors may negatively impact our business, reputation, results of operations, and financial condition.

Increased longevity due to improvements in medical technologies may require us to modify our assumptions, models, or reserves. Additionally, increases in the prevalence and accuracy of genetic testing, or legislation or regulation regarding the use by insurers of information produced by such testing, may exacerbate adverse selection risks. Such changes in medical technologies may thus have a material adverse effect on our business, results of operations, and financial condition.

See:

- "Business — Policyholder Liabilities;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Policyholder Liabilities;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Summary of Critical Accounting Estimates — Deferred Policy Acquisition Costs and Value of Business Acquired;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Summary of Critical Accounting Estimates — Derivatives;" and
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations — Consolidated Results — Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017 — Actuarial Assumption Review and Certain Other Insurance Adjustments."

The Global Nature of Our Operations Exposes Us to a Variety of Political, Legal, Operational, Economic and Other Risks

The global nature of our business operations exposes us to a wide range of political, legal, operational, economic and other risks, including but not limited to:

- nationalization or expropriation of assets;
- imposition of limits on foreign ownership of local companies;
- changes in laws (including insurance and tax laws and regulations), their application or interpretation, including retroactive application of such changes;
- political instability (including any government's inability to maintain operations or funding);
- economic or trade sanctions;
- dividend limitations;
- price controls;
- changes in applicable currency;
- currency exchange controls or other restrictions that prevent us from transferring funds out of the countries in which we operate or converting local currencies we hold into U.S. dollars or other currencies;
- difficulty in enforcing contracts;
- imposition of regulations limiting our ability to distribute our products; and
- public or political criticism of our products, practices, and other aspects of our business and operations.

Such actions or events may negatively affect our business or reputation in the relevant jurisdictions and could indirectly affect our business or reputation in other jurisdictions as well. Some of our operations are, and are likely to continue to be, in emerging markets, where many of these risks are heightened.

Additionally, we face risks related to a number of issues or concerns that may impact our global operations, including but not limited to international trade agreements (e.g., NAFTA/USMCA), uncertainties in intergovernmental organizations (e.g., the EU and the U.K.'s planned withdrawal from it), pension system reforms, and others.

If we encounter labor problems with workers' associations or trade unions, or if any of our businesses is not successful, we may lose all or most of our investment in building and training the sales force in that business, which may adversely affect our results of operations.

Expanding our operations to new businesses or jurisdictions may require considerable management time and start-up expenses before significant, if any, revenues and earnings are generated, which may reduce the amount of management and financial resources available for other uses. Our operations in new or existing markets may achieve low margins or may be unprofitable, which may negatively impact our operating margins and results of operations.

See:

- "Business — Regulation;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Financial and Economic Environment;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Current Environment — Selected Country and Sector Investments;" and
- "Quantitative and Qualitative Disclosures About Market Risk."

Competitive Factors May Adversely Affect Our Market Share and Profitability

Competitive pressures, based on a number of factors including service, product features, scale, price, financial strength, claims-paying ratings, credit ratings, e-business capabilities, name recognition, and other factors, may adversely affect the persistency of our products and our ability to sell products in the future. We can be adversely affected by competition from other insurance companies, as well as non-insurance financial services companies such as banks, broker-dealers and asset managers, which may have a broader array of products, more competitive pricing, higher claims paying ability ratings, greater financial resources with which to compete, or pre-existing customer bases for financial services products. Additionally, we may lose purchasers of group insurance products that are underwritten annually if they are able to obtain more favorable terms from competitors than they could by renewing coverage with us. These competitive pressures may adversely affect the persistency of these and other products, as well as our ability to sell our products in the future. Furthermore, the investment management and securities brokerage businesses have relatively low barriers to entry and continually attract new entrants. Our customers and clients may engage other financial service providers, and the resulting loss of business could negatively affect our results of operations or financial condition.

An increase in consolidation activity among banks and broker-dealers, through which the insurance industry distributes many of its individual products, may negatively impact the industry's sales, and such consolidation could increase competition for access to distributors, result in greater distribution expenses and impair our ability to market insurance products to our current customer base or to expand our customer base. Consolidation of distributors or other industry changes may also increase the likelihood that distributors will try to renegotiate the terms of existing selling agreements to terms less favorable to us.

In addition, legislative and other changes affecting the regulatory environment for our business may have the effect of supporting or burdening some aspects of or actors in the financial services industry more than others, which could adversely affect our competitive position within the life insurance industry and within the broader financial services industry.

See:

- "Business — Competition;"
- "Business — Regulation;" and
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Competitive Pressures."

Technological Changes May Present New and Intensified Challenges to Our Business

Recent and future changes in technology may present us with new challenges and may intensify many of the challenges that we already face. For example, as a result of the availability of new technological tools for data collection and analysis, we have access to an increasing amount of data, from an increasing variety of sources, regarding deaths of our policyholders and annuitants. We may be unable to accurately or completely process this increased volume of information within the time periods required by applicable standards. Furthermore, the additional information that we obtain as a result of technological improvements may require us to modify our assumptions, models, or reserves. Changes in technology related to collection and analysis of data regarding customers could, in these ways or others, expose us to regulatory or legal actions and may have a material adverse effect on our business, reputation, results of operations, and financial condition.

Technological changes may impact the ways in which we interact with our customers. As technology evolves, customers may expect increased choices in the ways in which they interact with us, and we may be required to redesign certain of our products to meet changing customer preferences. Our distribution channels may become more automated in order to provide customers with increased flexibility to access our services and products at times and places of their choosing. Such changes may require significant costs to implement. If we are unsuccessful in implementing such changes, our competitive position may be harmed and our relationships with our distribution partners may suffer.

Technological advances may also impact the composition and results of our investment portfolio. For example, changes in energy technology may impact the relative attractiveness of investments in a variety of energy sources, and increasing consumer preferences for e-commerce may negatively impact the profitability of retail and commercial real estate. If we are unable to adjust our investments in reaction to such changes, our results of operations and financial condition may be materially and adversely affected.

Catastrophes May Adversely Impact Liabilities for Policyholder Claims and Reinsurance Availability

Claims resulting from catastrophic events could cause substantial volatility in our financial results for any fiscal quarter or year and could materially reduce our profitability or harm our financial condition. In addition, catastrophic events could harm the financial condition of issuers of obligations we hold in our investment portfolio, resulting in impairments to these obligations, and could also harm the financial condition of our reinsurers, thereby increasing the probability of default on reinsurance recoveries. Large-scale catastrophic events may also reduce the overall level of economic activity in affected countries, which could hurt our business and the value of our investments or our ability to write new business. It is possible that increases in the value of property, caused by inflation or other factors, and geographic concentration of insured lives or property, could increase the severity of claims we receive from future catastrophic events. Due to their nature, we cannot predict the incidence, timing and severity of catastrophic events.

Our life insurance operations face the risk of catastrophic mortality, such as a pandemic or other event that causes a large number of deaths. A significant pandemic could have a major impact on the global economy and financial markets or could result in disruption to our business operations. The effectiveness of external parties, including governmental and non-governmental organizations, in combating the spread and severity of such a pandemic is outside of our control and could have a material impact on the losses we experience. A localized event that affects the workplace of one or more of our group insurance customers could cause a significant loss due to mortality or morbidity claims. These events could have a material adverse effect on our business, results of operations and financial condition in any period.

Our Property & Casualty businesses will likely experience, from time to time, catastrophe losses as a result of various events, including hurricanes, windstorms, earthquakes, hail, tornadoes, explosions, severe winter weather, fires and man-made events such as terrorist attacks, which may have a material adverse impact on our business, results of operations and financial condition in any period.

Climate change may increase the frequency and severity of weather related disasters and pandemics. In addition, climate change regulation may affect the prospects of companies and other entities whose securities we hold or our willingness to continue to hold their securities. It may also impact other counterparties, including reinsurers, and affect the value of our investments, including real estate investments. We cannot predict the long-term impacts on us from climate change or related regulation.

Consistent with industry practice and accounting standards, we establish liabilities for claims arising from a catastrophe only after assessing the probable losses arising from the event. We cannot be certain that the liabilities we have established will be adequate to cover actual claim liabilities. State legislation that has the effect of limiting the ability of insurers to manage risk, such as legislation restricting an insurer's ability to withdraw from catastrophe-prone areas or requiring regulatory approval of internal reinsurance transactions, may impede our efforts to manage our catastrophe risk. Our ability to manage catastrophe risk also depends in part on our ability to obtain catastrophe reinsurance, which may not be available at commercially acceptable rates, or at all, in the future.

A catastrophic event could render inadequate the funds of guaranty associations or similar organizations, and we may be called upon to contribute additional amounts, which may have a material impact on our financial condition or results of operations.

See:

- "Business — Regulation — Insurance Regulation — Guaranty Associations and Similar Arrangements;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Executive Summary — Other Key Information — Hurricanes;" and
- Note 20 of the Notes to the Consolidated Financial Statements.

We May Need to Fund Deficiencies in Our Closed Block; Assets Allocated to the Closed Block Benefit Only the Holders of Closed Block Policies

The closed block assets established in connection with the demutualization of MLIC, the cash flows generated by the closed block assets and the anticipated revenue from the policies included in the closed block may not be sufficient to provide for the benefits guaranteed under these policies. If they are not, we must fund the shortfall. Even if they are sufficient, we may choose, for competitive reasons, to support policyholder dividend payments with our general account funds. Such actions may reduce funds that would otherwise be available to us for other uses and could thus adversely impact our results of operations or financial condition.

See Note 7 of the Notes to the Consolidated Financial Statements.

We May Be Required to Recognize an Impairment of Our Goodwill or Other Long-Lived Assets or to Establish a Valuation Allowance Against Our Deferred Income Tax Assets

If the performance of our businesses are negatively impacted by prolonged market declines or other factors, the estimated fair value of the reporting units on which we perform our goodwill impairment testing may be reduced, which may result in a determination that the goodwill has been impaired. In such case, we must write down the goodwill by the amount of the impairment, with a corresponding charge to net income. Such write-downs could have an adverse effect on our results of operations or financial position.

Similarly, if impairment testing of long-lived assets, including but not limited to real estate, indicates that we will be unable to recover the carrying amount of such an asset, we must write down the asset, which could have a material adverse effect on our results of operations or financial position.

Management may determine that it is more likely than not that any particular deferred income tax asset will not be realized, based on factors such as the performance of the business including the ability to generate future taxable income. In such circumstance, a valuation allowance must be established with a corresponding charge to net income. Such charges could have a material adverse effect on our results of operations or financial position. In addition, changes in the corporate tax rates could affect the value of our deferred tax assets and may require a write-off of some of those assets.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Summary of Critical Accounting Estimates — Goodwill;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Summary of Critical Accounting Estimates — Income Taxes;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Executive Summary — Overview — U.S. Tax Reform;" and
- Notes 1 and 11 of the Notes to the Consolidated Financial Statements.

We May Be Required to Accelerate the Amortization of or Impair DAC, DSI or VOBA

DAC, deferred sales inducements ("DSI") and VOBA for certain products are amortized in proportion to actual and expected gross profits or margins. Low investment returns, mortality, morbidity, persistency, interest crediting rates, dividends paid to policyholders, expenses to administer the business, creditworthiness of reinsurance counterparties and certain economic variables, such as inflation may negatively affect the amount of future gross profit or margins. If actual gross profits or margins are less than originally expected, then the amortization of such costs would be accelerated in the period the actual experience is known and would result in a charge to net income. Significant or sustained equity market declines or significantly lower spreads could result in an acceleration of amortization of DAC, DSI and VOBA, resulting in a charge to net income. Such adjustments could have a material adverse effect on our results of operations or financial condition.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Summary of Critical Accounting Estimates — Deferred Policy Acquisition Costs and Value of Business Acquired;"
- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Impact of a Sustained Low Interest Rate Environment;" and
- Note 1 of the Notes to the Consolidated Financial Statements.

Guarantees Within Certain Products May Decrease Our Earnings, Increase the Volatility of Our Results, Result in Higher Risk Management Costs and Expose Us to Increased Counterparty Risk

The valuation of our liabilities associated with products that include guaranteed benefits, including guaranteed minimum death benefits ("GMDBs") (including but not limited to no-lapse guarantee benefits), guaranteed minimum withdrawal benefits ("GMWBs"), guaranteed minimum accumulation benefits ("GMABs"), guaranteed minimum income benefits ("GMIBs"), and minimum crediting rate features could increase in the event of significant and sustained downturns in equity markets, increased equity volatility, or reduced interest rates. An increase in these liabilities would result in a decrease in our net income.

The derivatives and other risk management strategies we use to hedge the economic exposure to these liabilities that do not qualify for hedge accounting treatment may result in volatility in the results of our operations, including net income, to the extent the financial measurement of the hedged liability does not fully reflect the sensitivity to the underlying economic exposure. The risk management strategies and hedging instruments that we use to directly mitigate the volatility in net income associated with certain of these liabilities, including the use of reinsurance and derivatives, may not effectively offset the costs of guarantees and may not be completely effective. Furthermore, changes in policyholder behavior or mortality, combined with adverse market events, may produce economic losses not addressed by the risk management techniques employed. These factors may have a material adverse effect on our results of operations, including net income, capitalization, financial condition or liquidity, including our ability to receive dividends from our operating insurance companies.

See:

- "Management's Discussion and Analysis of Financial Condition and Results of Operations — Policyholder Liabilities — Variable Annuity Guarantees" and
- Note 1 of the Notes to the Consolidated Financial Statements.

Operational Risks

Our Risk Management Policies and Procedures or Our Models May Leave Us Exposed to Unidentified or Unanticipated Risk

Our enterprise risk management policies and procedures may not be sufficiently comprehensive and may not identify every risk to which we are exposed. Many of our methods for managing risk and exposures are based upon the use of observed historical market behavior to model or project potential future exposure.

Models used by our business are based on assumptions, projections and data that may be inaccurate. Business or other decisions, including determination of reserves, based on incorrect or misused model output and reports could have a material adverse impact on our results of operations. Models used by our business may be misspecified for their intended purpose, may be misused, may not operate properly, and may contain errors related to model inputs, data, assumptions, calculations, or output. We perform model reviews that could give rise to adjustments to models that may adversely impact our results of operations. Additionally, our model review process may not adequately identify or remediate errors in or related to our models. As a result, our models may not fully predict future exposures or correctly reflect past experience, which may have a material impact on our business, reputation, results of operations or financial condition.

Other risk management methods depend upon the evaluation of information regarding markets, clients, catastrophe occurrence or other matters that are publicly available or otherwise accessible to us. This information may not always be accurate, complete, up-to-date or properly evaluated. Furthermore, there can be no assurance that we can effectively review and monitor all risks or that all of our associates will follow our risk management policies and procedures, nor can there be any assurance that our risk management policies and procedures will enable us to accurately identify all risks and limit our exposures based on our assessments. In addition, we may have to implement more extensive and perhaps different risk management policies and procedures in the future due to legal and regulatory requirements, which could result in increased costs and may adversely affect our results of operations.

See:

- "Business — Regulation — Insurance Regulation" and
- "Quantitative and Qualitative Disclosures About Market Risk."

Our Policies and Procedures May Be Insufficient To Protect Us From Certain Operational Risks

We are highly dependent on our ability to process a large number of complex transactions across our businesses. The large number of transactions we process, and complexity of our administrative systems, makes it possible that errors will occasionally occur, and the controls and procedures we have in place to prevent such errors may not be entirely effective. The occurrence of mistakes, particularly significant ones, can subject us to claims from our customers and may have a material adverse effect on our reputation, business, results of operations, or financial condition.

We are dependent on our group product customers or their employees for certain information to accurately review and pay claims on many of our products. If we are unable to obtain necessary and accurate information from our customers, we may be unable to provide or verify coverage and to pay claims, or we may pay claims without accurate or complete documentation, which may have a material adverse effect on our reputation, business, results of operations, or financial condition.

From time to time, we rely on vendors or other service providers for services related to the administration of our products, investment management, or other business operations. To the extent our efforts to ensure such vendors' controls meet our standards are inadequate, our vendors fail to perform their services accurately or timely, the exchange of information between us and our vendors is imperfect, or our vendors suffer financial or reputational distress, any errors, misconduct, or discontinuation of services that result could have a material adverse effect on our business, reputation, results of operations, or financial condition.

From time to time, our administrative and operational practices may fail to timely and completely identify all of the property that we are legally required to escheat to a variety of jurisdictions as unclaimed property. As a result, we may be subject to unexpected charges, reserve strengthening, and expenses, as well as regulatory examinations, penalties or other fines. Each of these affects may harm our reputation or regulatory relationships that may harm our business, financial condition, or results of operations.

Our practices and procedures are evaluated periodically and from time to time may limit our efforts to contact all of our customers, which may result in delayed, untimely, or missed customer payments that may have a material adverse effect on the Company, including reputational harm.

We are subject to risks related to fraud, including fraud committed by our associates, as well as fraud through claims and other processes. Our policies and procedures may be ineffective in preventing, detecting or mitigating fraud and other illegal or improper acts, which could have a material adverse effect on our business, reputation, financial condition, or results of operations.

If our policies and practices to attract, motivate and retain employees, to develop talent, and to plan for management succession are not effective, our business, results of operations, and financial condition could be adversely affected.

We cannot be certain that we will not identify control deficiencies or material weaknesses in the future. If we identify future control deficiencies or material weaknesses, these may lead to additional adverse effects on our business, our reputation, our results of operations, and the market price of our common stock.

See "Business — Regulation — Unclaimed Property."

A Failure in Our Cybersecurity or Other Information Security Systems or Our Disaster Recovery Plans, or Those of Our Suppliers, Could Result in a Loss or Disclosure of Confidential Information, Damage to Our Reputation and Impairment of Our Ability to Conduct Business Effectively

We rely on the effective operation of our and our suppliers' computer systems throughout our business for a variety of functions, including processing claims, transactions and applications, providing information to customers and distributors, performing actuarial analyses and maintaining financial records. We also retain confidential and proprietary information on our and our suppliers' computer systems, and we rely on sophisticated technologies to maintain the security of that information. Our and our suppliers' computer systems are subject to computer viruses or other malicious codes, unauthorized or fraudulent access, social engineering, phishing, human error, cyberattacks or other computer-related penetrations, and such threats have increased over recent periods. The administrative and technical controls and other preventive actions we take to reduce the risk of cyber-incidents and protect our information technology may be insufficient to prevent physical and electronic break-ins, cyber-attacks, compromised credentials, fraud, other security breaches or other unauthorized access to our and our suppliers' computer systems. In some cases, such cyber-incidents may not be immediately detected. Such incidents may impede or interrupt our business operations and could adversely affect our business, reputation, financial condition and results of operations.

In the event of a disaster such as a natural catastrophe, epidemic, industrial accident, blackout, computer virus, terrorist attack, cyberattack or war, unanticipated problems with our and our suppliers' disaster recovery systems could have a material adverse impact on our ability to conduct business and on our results of operations and financial position, particularly if those problems affect our and our suppliers' computer-based data processing, transmission, storage and retrieval systems and destroy valuable data. In addition, if a significant number of our managers, or associates generally, are unavailable following a disaster, our ability to effectively conduct business could be severely compromised. These interruptions also may interfere with our suppliers' ability to provide goods and services and our associates' ability to perform their job responsibilities.

The failure of our and our suppliers' computer systems or our and our suppliers' disaster recovery plans for any reason, or any such failure on the part of vendors, distributors, and other third parties that provide operational or information technology services to us, could cause significant interruptions in our operations and result in a failure to maintain the security, confidentiality or privacy of sensitive data, including personal information relating to our customers. Such a failure could harm our reputation, subject us to regulatory investigations and sanctions, expose us to legal claims, lead to a loss of customers and revenues and otherwise adversely affect our business and financial results. Insurance for cyber liability, operational and other risks relating to our business and systems may not be sufficient to protect us against such losses or may become less readily available or more expensive, which could adversely affect our results of operations. In addition, increased scrutiny of cybersecurity issues by regulators, including new laws or regulations, could result in increased compliance costs.

There can be no assurance that our information security policies and systems in place can prevent unauthorized access, use or disclosure of confidential information, including nonpublic personal information, nor can we be certain that we will be able to reliably access all of the documents and records in the information storage systems we use, whether electronic or physical. In some circumstances, we may fail to obtain or maintain all of the records we need to accurately and timely administer, and establish appropriate reserves for benefits and claims with respect to, our products, which failure could adversely affect our business, reputation, results of operations or our financial condition.

We are continuously evaluating and enhancing systems and creating new systems and processes as our business depends on our ability to maintain and improve our technology systems. Due to the complexity and interconnectedness of our systems and processes, these changes, as well as changes designed to update and enhance our protective measures to address new threats, increase the risk of a system or process failure or the creation of a gap in our security measures. Any such failure or gap could adversely affect our business, reputation, results of operations or financial condition.

Any Failure to Protect the Confidentiality of Client Information Could Adversely Affect Our Reputation or Result in Legal or Regulatory Penalties

If we or our suppliers fail to maintain adequate internal controls or if our or our suppliers' associates fail to comply with relevant policies and procedures, misappropriation or intentional or unintentional inappropriate disclosure or misuse of our clients' confidential personal information could occur. Such internal control inadequacies or non-compliance could materially damage our reputation or lead to civil or criminal penalties, which, in turn, could have a material adverse effect on our business, financial condition and results of operations. Increased scrutiny of privacy issues by regulators, including new laws or regulations, could result in increased compliance costs. In addition, any inquiries from U.S. state, federal or other regulators regarding the use of "big data" techniques could result in harm to our reputation, and any limitations could have a material impact on our business, financial condition and results of operations.

See "Business — Regulation — Cybersecurity and Privacy Regulation."

Changes in Accounting Standards May Adversely Affect Our Financial Statements

From time to time, we are required to adopt new or revised accounting standards issued by recognized authoritative bodies, including the Financial Accounting Standards Board (the "FASB") and the IFRS Foundation. We cannot always meaningfully assess the effects of such new or revised accounting standards on our financial statements. Our adoption of future accounting standards could have a material adverse effect on our financial condition and results of operations.

See Note 1 of the Notes to the Consolidated Financial Statements.

Our Associates May Take Excessive Risks, Which Could Negatively Affect Our Financial Condition and Business

The associates who conduct our business, including executive officers and other members of management, sales managers, investment professionals, product managers, sales agents, wholesalers, underwriters, and other associates, may take excessive risks in a wide variety of business decisions, including setting underwriting guidelines and standards, determining claims, designing and pricing products, determining what assets to purchase for investment and when to sell them, evaluating business opportunities, and other decisions. The design and implementation of our compensation programs and practices may not be effective in deterring our associates from taking excessive risks, and our controls and procedures may not be sufficient to monitor associates' business decisions, prevent excessive risk-taking, or prevent associate misconduct. If our associates take excessive risks, the impact of those risks could have a material adverse effect on our reputation, financial condition and business operations.

We May Experience Difficulty in Marketing and Distributing Products Through Our Distribution Channels

Third-party distributors, through whom we primarily distribute our products, may suspend, alter, reduce or terminate their distribution relationships with us for various reasons, including changes in our distribution strategy, adverse developments in our business, adverse rating agency actions or concerns about market-related risks. There can be no assurance that the terms of our agreements with third-party distributors will remain acceptable to us or such third parties. Key distribution partners may merge, change their business models in ways that affect how our products are sold, or terminate their distribution contracts with us, and new distribution channels could emerge, and such developments could adversely impact the effectiveness of our distribution efforts. Consolidation of distributors and other industry changes may also increase the likelihood that distributors will try to renegotiate the terms of any existing selling agreements to terms less favorable to us. Interruptions or changes to our relationships with distributors could materially hinder our ability to market our products and could have a material adverse effect on our business, operating results and financial condition.

We may not be able to monitor or control the manner in which unaffiliated firms or agents distribute our products. If our products are distributed by such firms or agents in an inappropriate manner, or to customers for whom they are unsuitable, we may be subject to reputational harm, regulatory fines and other harm to our business.

Changes in Our Assumptions Used for Our Pension and Other Postretirement Benefit Plans May Result in Increased Expenses and Reduce Our Profitability

Changes in our assumptions regarding discount rates, rates of return on plan assets, mortality rates, compensation levels and medical inflation may adversely affect our estimates of pension and other postretirement benefit plan experience, which could result in increased expenses and reduce our profitability.

See Note 17 of the Notes to the Consolidated Financial Statements.

We May Not be Able to Protect Our Intellectual Property and May be Subject to Infringement Claims

Contractual rights with third parties and copyright, trademark, patent and trade secret laws may be insufficient to prevent third parties from infringing on or misappropriating our intellectual property. We may have to litigate to enforce and protect our copyrights, trademarks, patents, trade secrets and know-how or to determine their scope, validity or enforceability. This may result in a significant diversion of resources, and our efforts may not prove successful. The inability to secure or protect our intellectual property assets could harm our reputation and have a material adverse effect on our business and our ability to compete with other insurers and financial institutions.

In addition, we may be subject to claims by third parties for:

- patent, trademark or copyright infringement;
- breach of patent, trademark or copyright license usage rights; or
- misappropriation of trade secrets.

Any such claims or resulting litigation could result in significant expense and liability for damages. If we are found to have infringed or misappropriated a third-party patent or other intellectual property right, we could in some circumstances be enjoined from providing certain products or services to our customers or from utilizing and benefiting from certain patents, copyrights, trademarks, trade secrets or licenses. Alternatively, we could be required to enter into costly licensing arrangements with third parties or implement a costly alternative. Any of these scenarios could harm our reputation and have a material adverse effect on our business and results of operations.

Risks Related to Acquisitions, Dispositions or Other Structural Changes

We Could Face Difficulties, Unforeseen Liabilities, Asset Impairments or Rating Actions Arising from Business Acquisitions or Integrating and Managing Growth of Such Businesses, Dispositions of Businesses, or Legal Entity Reorganizations

Acquisitions and dispositions of businesses, joint ventures, and other structural changes expose us to a number of risks arising from, among other factors:

- potential difficulties achieving projected financial results, including the costs and benefits of integration or deconsolidation, due to macroeconomic, business, demographic, actuarial, regulatory, or political factors;
- unforeseen liabilities or asset impairments;
- the scope and duration of rights to indemnification for losses, and the recoverability of such indemnification;
- the use of capital that could be used for other purposes;
- liquidity requirements;
- reactions of ratings agencies, shareholders, policyholders and contractholders, distributors, suppliers and other contractual counterparties;
- regulatory requirements that could impact our operations or capital requirements;
- changes in statutory or U.S. GAAP accounting principles, practices or policies;
- dedication of management resources that could otherwise be deployed to other business, or distraction of key personnel from maximizing business value;
- providing or receiving transition services that may disrupt operations or impose liabilities or restrictions on us;
- loss of key personnel or difficulties recruiting personnel;
- loss of customers;
- loss of distribution resources or suppliers;
- inefficiencies as we integrate operations and address differences in cultural, management, information, compliance and financial systems and procedures; and
- impacts on internal controls and procedures.

The success with which we are able to conduct business through joint ventures, including exclusive or semi-exclusive distribution relationships, will depend on our ability to manage a variety of issues, including the following:

- Entering into joint ventures with other companies or government sponsored entities in various international markets, including joint ventures where we have a lesser degree of control over the business operation, may expose us to additional operational, financial, legal or compliance risks.
- Dependence on a joint venture counterparty for capital, product distribution, local market knowledge, or other resources, or dependence on a joint venture counterparty due to limits on our ownership levels or distribution exclusivity requirements under local laws or regulations, may reduce our control over, our financial returns from, or the value of a joint venture.
- If we are unable to effectively cooperate with joint venture counterparties, or a joint venture counterparty fails to meet its obligations under the joint venture arrangement, encounters financial difficulty, or elects to alter, modify or terminate the relationship, we may be unable to exercise management control or influence over these joint venture operations and our ability to achieve our objectives and our results of operations may be negatively impacted, thereby impairing our investment.

Reorganizing or consolidating the legal entities through which we conduct business may raise similar risks. The success with which we are able to realize benefits from legal entity reorganizations will also depend on our ability to manage a variety of issues, including regulatory approvals, modification of our operations and changes to our investment portfolios or derivatives hedging activities.

Any of these risks, if realized, could prevent us from achieving the benefits we expect or could otherwise have a material adverse effect on our business, results of operations or financial condition.

See “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Acquisitions and Dispositions.”

We Are Subject to Risks Related to Our Separation from and Continuing Relationship with Brighthouse

We remain subject to certain risks related to our separation from and continuing relationship with Brighthouse. There can be no assurance that we will realize any or all of the expected strategic, financial, operational or other benefits of the separation of Brighthouse, and a failure to realize expected benefits of the separation could result in a material adverse effect on our business, results of operations and financial condition. Our agreements with Brighthouse, and the tax treatment of the separation, also expose us to risk. In addition, we cannot guarantee that Brighthouse will be successful as a standalone entity. If Brighthouse is not successful, plaintiffs could assert a variety of claims against us, which could have a material adverse effect on our business, financial condition or results of operations.

See:

- “Business — Regulation — Brighthouse Separation Tax Treatment” and
- Note 3 of the Notes to the Consolidated Financial Statements.

Governance Risks

MetLife, Inc.’s Board of Directors May Influence the Outcome of Stockholder Votes on Many Matters Due to the Voting Provisions of the MetLife Policyholder Trust

As a result of the voting provisions of the MetLife Policyholder Trust and the number of shares held by it, the Board of Directors may be able to influence the outcome of votes on matters submitted to a vote of stockholders, excluding certain fundamental corporate actions, so long as the Trust holds a substantial number of shares of common stock. Additionally, if a vote concerns certain fundamental corporate actions, the trustee will vote all of the shares of common stock held by the Trust in proportion to instructions it receives from Trust beneficiaries, which will give disproportionate weight to the instructions actually given by Trust beneficiaries.

The winding up of the Trust must commence within 90 days after we notify the trustee that the Trust holds 10% or less of MetLife’s outstanding common stock. When the Trust is terminated and the shares of common stock then held in the Trust are distributed to the respective Trust beneficiaries, we may incur costs related to the termination of the Trust, such as regulatory filings and mailings to Trust beneficiaries or others, and afterward we may incur costs related to an increase in the number of shareholders, such as increased mailing and proxy solicitation expenses. After such a distribution, the addition of the respective Trust beneficiaries to our shareholder base with full voting rights may have a significant impact on matters brought to a stockholder vote and other aspects of our corporate governance.

State Laws, Federal Laws, and Our Certificate of Incorporation Our By-Laws May Delay, Deter or Prevent Takeovers and Business Combinations that Stockholders Might Consider in Their Best Interests

State laws, federal laws and our certificate of incorporation and by-laws may delay, deter or prevent a takeover attempt that stockholders might consider in their best interests. For instance, such restrictions may prevent stockholders from receiving the benefit from any premium over the market price of MetLife, Inc.’s common stock offered by a bidder in a takeover context. Even in the absence of a takeover attempt, the existence of these provisions may adversely affect the prevailing market price of MetLife, Inc.’s common stock if they are viewed as discouraging takeover attempts in the future.

Any person seeking to acquire a controlling interest in us would face various regulatory obstacles, including:

- applicable U.S. state or foreign insurance laws and regulations that may delay or impede a business combination involving us by prohibiting an entity from acquiring control of an insurance company without the prior approval of its domestic insurance regulator;
- if the acquiring entity is a bank or non-bank SIFI, Dodd-Frank provisions that restrict or impede consolidations, mergers and acquisitions by systemically significant firms;
- provisions of the Investment Company Act that require approval by the contract owners of our variable contracts in order to effectuate a change of control of any affiliated investment adviser to a mutual fund underlying our variable contracts;
- FINRA approval requirements for a change of control of any registered broker-dealer;
- provisions of the Delaware General Corporation Law that may affect the ability of an "interested stockholder" to engage in certain business combinations; and
- applicable antitrust and competition laws.

In addition, provisions of MetLife, Inc.'s certificate of incorporation and by-laws may delay, deter or prevent a takeover attempt that stockholders might consider in their best interests or may otherwise adversely affect prevailing market prices for MetLife, Inc.'s common stock, including a prohibition on the calling of special meetings or action by written consent by stockholders and advance notice procedures for the nomination of candidates to the Board of Directors and consideration of stockholder proposals. Additionally, stockholders may change MetLife, Inc.'s corporate governance through amendments to MetLife, Inc.'s certificate of incorporation or by-laws in ways that make it more difficult for the Board of Directors to protect stockholders' interests, for example, if the Board of Directors is presented with an acquisition proposal that undervalues the Company.

Item 1B. Unresolved Staff Comments

MetLife has no unresolved comments from the SEC staff regarding its periodic or current reports under the Exchange Act.

Item 2. Properties

As of December 31, 2018, we leased our headquarters building located at 200 Park Avenue, New York, New York. Including our headquarters, throughout the U.S. we own eight buildings and have approximately 112 leases used in support of all segments, as well as Corporate & Other.

Also, as of December 31, 2018, we owned three properties and have approximately 169 leases in Japan, which are used primarily by our Asia segment. Excluding the U.S. and Japan, we own approximately 112 properties and have approximately 986 leases in various countries used primarily in support of our Asia, Latin America, and EMEA segments, as well as Corporate & Other.

We believe our properties are adequate and suitable for our business as currently conducted, and are adequately maintained. The above properties do not include properties we own for investment-only purposes.

Item 3. Legal Proceedings

See Note 20 of the Notes to the Consolidated Financial Statements.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Issuer Common Equity

MetLife, Inc.'s common stock, par value $0.01 per share, began trading on the New York Stock Exchange under the symbol "MET" on April 5, 2000.

At February 14, 2019, there were 75,017 stockholders of record of our common stock.

See Item 12 for information about our equity compensation plans.

Issuer Purchases of Equity Securities

Purchases of MetLife, Inc. common stock made by or on behalf of MetLife, Inc. or its affiliates during the quarter ended December 31, 2018 are set forth below:

Period	(a) Total Number of Shares Purchased (1)	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs (2)
October 1 - October 31, 2018	—	—	—	$470,341,462
November 1 - November 30, 2018	13,447,275	$44.40	13,447,275	$1,873,338,798
December 1 - December 31, 2018	14,979,095	$40.26	14,978,937	$1,270,341,498
Total	28,426,370		28,426,212	

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(1) Except for the foregoing, there were no shares of MetLife, Inc. common stock repurchased by MetLife, Inc. During the periods October 1 through October 31, 2018, November 1 through November 30, 2018 and December 1 through December 31, 2018, separate account index funds purchased 0 shares, 0 shares and 158 shares, respectively, of MetLife, Inc. common stock on the open market in non-discretionary transactions.

(2) In November 2018, MetLife, Inc. announced that its Board of Directors authorized $2.0 billion of common stock repurchases. At December 31, 2018, MetLife, Inc. had $1.3 billion of common stock repurchases remaining under the authorization. For more information on common stock repurchases, see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Common Stock Repurchases," "Risk Factors — Capital Risks — Legal and Regulatory Restrictions May Prevent Us from Paying Dividends and Repurchasing Our Stock at the Level We Wish" and Notes 15 and 22 of the Notes to the Consolidated Financial Statements.

Common Stock Performance Graph

The graph and table below compare the total return on our common shares with the total return on the S&P 500, S&P 500 Insurance, and S&P 500 Financials indices, respectively, for the five-year period ended on December 31, 2018. The graph and table show the total return on a hypothetical $100 investment in our common shares and in each index, respectively, on December 31, 2013, including the reinvestment of all dividends. The graph and table below shall not be deemed to be "soliciting material" or to be "filed," or to be incorporated by reference in future filings with the SEC, or to be subject to the liabilities of Section 18 of the Exchange Act, except to the extent that we specifically incorporate it by reference into a document filed under the Securities Act or the Exchange Act.

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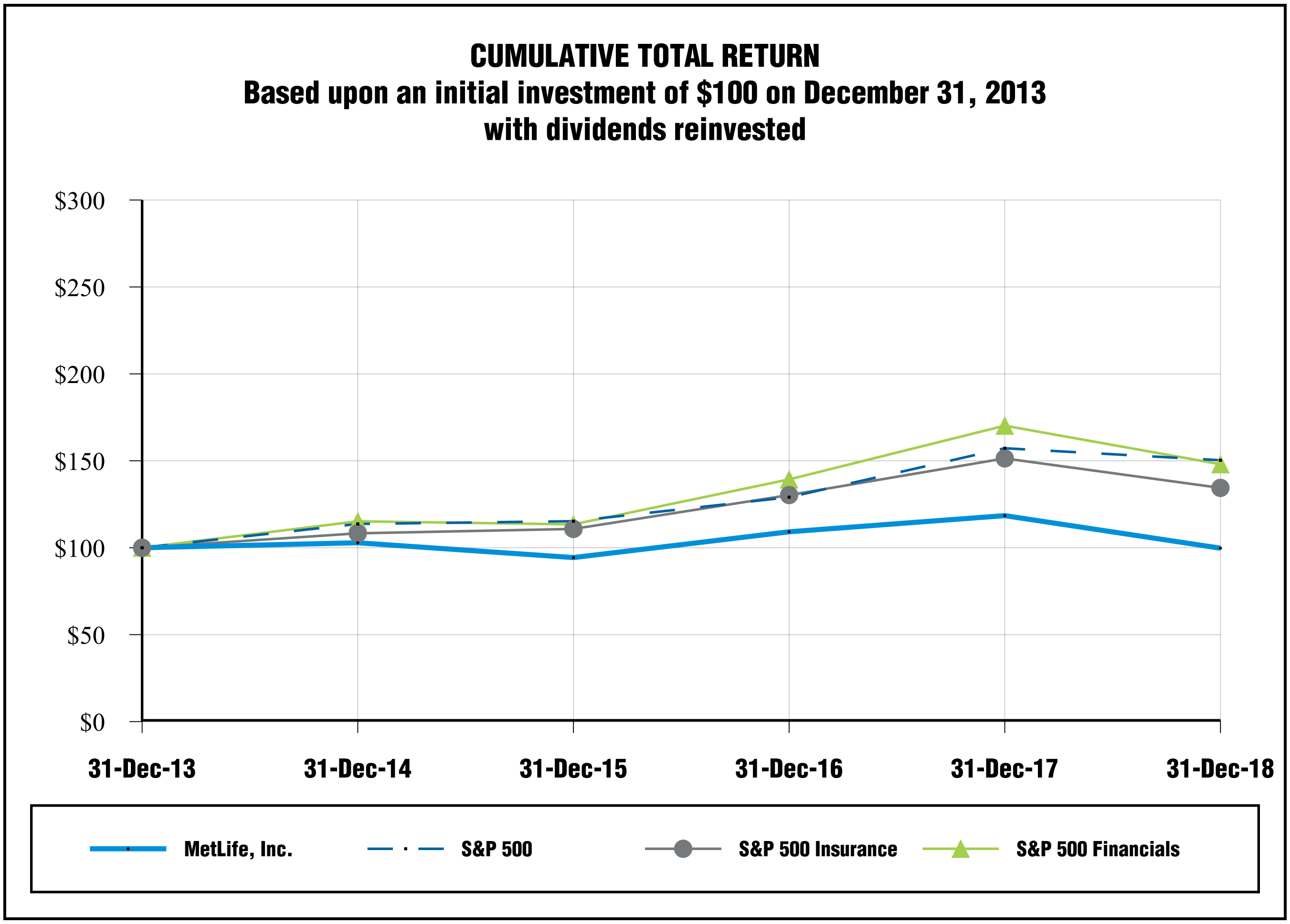

	As of December 31,					
	2013	**2014**	**2015**	**2016**	**2017**	**2018**
MetLife, Inc. common stock	$ 100.00	$ 102.85	$ 94.34	$ 109.17	$ 118.46	$ 99.74
S&P 500	100.00	113.69	115.26	129.05	157.22	150.33
S&P 500 Insurance	100.00	108.29	110.81	130.29	151.38	134.42
S&P 500 Financials	100.00	115.20	113.44	139.31	170.21	148.03

Item 6. Selected Financial Data

The following selected financial data has been derived from the Company's audited consolidated financial statements. The statement of operations data for the years ended December 31, 2018, 2017 and 2016, and the balance sheet data at December 31, 2018 and 2017 have been derived from the Company's audited consolidated financial statements included elsewhere herein. The statement of operations data for the years ended December 31, 2015 and 2014, and the balance sheet data at December 31, 2016, 2015 and 2014 have been derived from the Company's audited consolidated financial statements not included herein. The selected financial data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the audited consolidated financial statements and related notes included elsewhere herein.

	Years Ended December 31,				
	2018	2017	2016	2015	2014
			(In millions)		
Statement of Operations Data					
Revenues					
Premiums	$ 43,840	$ 38,992	$ 37,202	$ 36,403	$ 36,970
Universal life and investment-type product policy fees	5,502	5,510	5,483	5,570	5,824
Net investment income	16,166	17,363	16,790	16,205	18,158
Other revenues	1,880	1,341	1,685	1,927	1,962
Net investment gains (losses)	(298)	(308)	317	609	338
Net derivative gains (losses)	851	(590)	(690)	629	722
Total revenues	67,941	62,308	60,787	61,343	63,974
Expenses					
Policyholder benefits and claims	42,656	38,313	36,358	35,144	35,393
Interest credited to policyholder account balances	4,013	5,607	5,176	4,415	5,726
Policyholder dividends	1,251	1,231	1,223	1,356	1,353
Other expenses	13,714	13,621	13,749	14,777	14,619
Total expenses	61,634	58,772	56,506	55,692	57,091
Income (loss) from continuing operations before provision for income tax	6,307	3,536	4,281	5,651	6,883
Provision for income tax expense (benefit)	1,179	(1,470)	693	1,590	1,936
Income (loss) from continuing operations, net of income tax	5,128	5,006	3,588	4,061	4,947
Income (loss) from discontinued operations, net of income tax (1)	—	(986)	(2,734)	1,324	1,389
Net income (loss)	5,128	4,020	854	5,385	6,336
Less: Net income (loss) attributable to noncontrolling interests	5	10	4	12	27
Net income (loss) attributable to MetLife, Inc.	5,123	4,010	850	5,373	6,309
Less: Preferred stock dividends	141	103	103	116	122
Preferred stock repurchase premium	—	—	—	42	—
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 4,982	$ 3,907	$ 747	$ 5,215	$ 6,187

	Years Ended December 31,				
	2018	2017	2016	2015	2014
EPS Data					
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders per common share:					
Basic	$ 4.95	$ 4.57	$ 3.16	$ 3.48	$ 4.25
Diluted	$ 4.91	$ 4.53	$ 3.13	$ 3.44	$ 4.20
Income (loss) from discontinued operations, net of income tax, per common share (1):					
Basic	$ —	$ (0.92)	$ (2.48)	$ 1.19	$ 1.23
Diluted	$ —	$ (0.91)	$ (2.46)	$ 1.18	$ 1.22
Net income (loss) available to MetLife, Inc.'s common shareholders per common share:					
Basic	$ 4.95	$ 3.65	$ 0.68	$ 4.67	$ 5.48
Diluted	$ 4.91	$ 3.62	$ 0.67	$ 4.62	$ 5.42
Cash dividends declared per common share	$ 1.660	$ 1.600	$ 1.575	$ 1.475	$ 1.325

	December 31,				
	2018	2017	2016	2015	2014
			(In millions)		
Balance Sheet Data					
Assets of disposed subsidiary (1)	$ —	$ —	$ 216,983	$ 216,437	$ 219,937
Separate account assets	$ 175,556	$ 205,001	$ 195,578	$ 187,152	$ 194,072
Total assets	$ 687,538	$ 719,892	$ 898,764	$ 877,912	$ 902,322
Policyholder liabilities and other policy-related balances (2)	$ 388,107	$ 378,810	$ 355,151	$ 342,047	$ 349,651
Short-term debt	$ 268	$ 477	$ 242	$ 100	$ 100
Long-term debt	$ 12,829	$ 15,686	$ 16,441	$ 17,936	$ 16,108
Collateral financing arrangement	$ 1,060	$ 1,121	$ 1,274	$ 1,342	$ 1,399
Junior subordinated debt securities	$ 3,147	$ 3,144	$ 3,169	$ 3,194	$ 3,193
Liabilities of disposed subsidiary (1)	$ —	$ —	$ 202,707	$ 204,314	$ 208,341
Separate account liabilities	$ 175,556	$ 205,001	$ 195,578	$ 187,152	$ 194,072
Accumulated other comprehensive income (loss)	$ 1,722	$ 7,427	$ 5,366	$ 4,767	$ 10,714
Total MetLife, Inc.'s stockholders' equity	$ 52,741	$ 58,676	$ 67,531	$ 68,098	$ 72,208
Noncontrolling interests	$ 217	$ 194	$ 171	$ 470	$ 507

	Years Ended December 31,				
	2018	2017	2016	2015	2014
Other Data (3)					
Return on MetLife, Inc.'s common stockholders' equity	9.6%	6.3%	1.0%	7.7%	9.5%

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(1) See Note 3 of the Notes to the Consolidated Financial Statements.

(2) Policyholder liabilities and other policy-related balances include future policy benefits, policyholder account balances, other policy-related balances, policyholder dividends payable and the policyholder dividend obligation.

(3) Return on MetLife, Inc.'s common stockholders' equity is defined as net income (loss) available to MetLife, Inc.'s common shareholders divided by MetLife, Inc.'s average common stockholders' equity.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Index to Management’s Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements and Other Financial Information

For purposes of this discussion, "MetLife," the "Company," "we," "our" and "us" refer to MetLife, Inc., a Delaware corporation incorporated in 1999, its subsidiaries and affiliates. This discussion should be read in conjunction with "Note Regarding Forward-Looking Statements," "Risk Factors," "Selected Financial Data," "Quantitative and Qualitative Disclosures About Market Risk" and the Company's consolidated financial statements included elsewhere herein.

This Management's Discussion and Analysis of Financial Condition and Results of Operations may contain or incorporate by reference information that includes or is based upon forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. See "Note Regarding Forward-Looking Statements" for cautionary language regarding forward-looking statements.

This Management's Discussion and Analysis of Financial Condition and Results of Operations includes references to our performance measures, adjusted earnings and adjusted earnings available to common shareholders, that are not based on GAAP. See "— Non-GAAP and Other Financial Disclosures" for definitions and a discussion of these measures, and "— Results of Operations" for reconciliations of historical non-GAAP financial measures to the most directly comparable GAAP measures.

Executive Summary

Overview

MetLife is one of the world's leading financial services companies, providing insurance, annuities, employee benefits and asset management. MetLife is organized into five segments: U.S.; Asia; Latin America; EMEA; and MetLife Holdings. In addition, the Company reports certain of its results of operations in Corporate & Other. See "Business — Segments and Corporate & Other" and Note 2 of the Notes to the Consolidated Financial Statements for further information on the Company's segments and Corporate & Other. Management continues to evaluate the Company's segment performance and allocated resources and may adjust related measurements in the future to better reflect segment profitability.

U.S. Tax Reform

In December 2017, U.S. Tax Reform was signed into law. U.S. GAAP requires that the impact of tax legislation be recognized in the period in which the law was enacted. As a result, the Company recognized the tax effects of U.S. Tax Reform for the year ended December 31, 2017. While the Company recorded a reasonable estimate of the tax effects of U.S. Tax Reform in the period of enactment, its income tax accounting was not complete due to uncertainties that existed at the time. Accordingly, certain U.S. Tax Reform amounts were revised in the Company's consolidated financial statements for the year ended December 31, 2018. In addition, given the complexities of U.S. Tax Reform, there still remain uncertainties surrounding aspects of the new law that may impact results in the future. See Note 18 of the Notes to the Consolidated Financial Statements for a further discussion of U.S. Tax Reform.

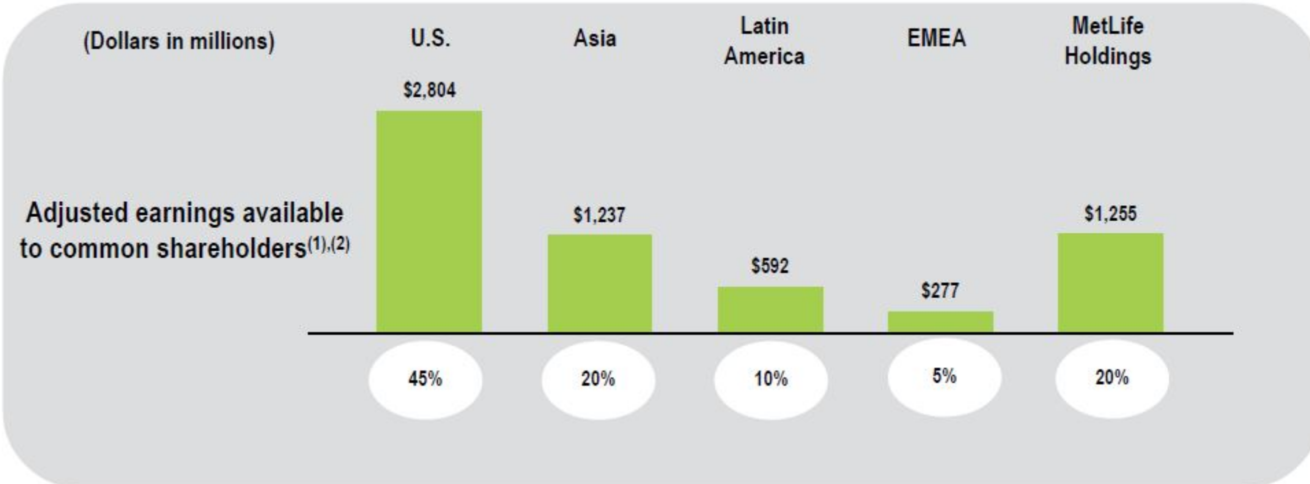
Separation of Brighthouse

In August 2017, MetLife, Inc. completed the separation of Brighthouse Financial, Inc. and its subsidiaries ("Brighthouse") through a distribution of 96,776,670 shares of Brighthouse Financial, Inc. common stock to the MetLife, Inc. common shareholders (the "Separation"). For information regarding the Separation, the Company's 2018 sale of the fair value option ("FVO") Brighthouse Financial, Inc. common stock ("FVO Brighthouse Common Stock"), and ongoing transactions between MetLife and Brighthouse, see Notes 3 and 12 of the Notes to the Consolidated Financial Statements.

Current Year Highlights

During the year ended December 31, 2018, overall sales increased compared to the year ended December 31, 2017 primarily from improved sales in our RIS business and in Japan. Positive net flows drove an increase in our investment portfolio and investment yields improved, however, interest credited rates were higher. A favorable change in net derivative gains (losses) was primarily the result of changes in foreign currency exchange rates and interest rates. While U.S. Tax Reform positively impacted net income in both 2018 and 2017, the impact in 2017 was significantly larger. In addition, our annual actuarial assumption review negatively impacted results when compared to 2017. Our results for 2017 included a loss from the operations of Brighthouse that is reflected in discontinued operations.

The following represents segment level results and percentage contributions to total segment level adjusted earnings available to common shareholders for the year ended December 31, 2018:



(1) Excludes Corporate & Other adjusted loss available to common shareholders of $704 million.

(2) Consistent with GAAP guidance for segment reporting, adjusted earnings is our GAAP measure of segment performance. For additional information, see Note 2 of the Notes to the Consolidated Financial Statements.

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Consolidated Results - Highlights

Net income (loss) available to MetLife, Inc.'s common shareholders up $1.1 billion:

- Favorable change in net derivative gains (losses) of $1.4 billion ($1.1 billion, net of income tax)
- Favorable change in results from divested businesses of $936 million ($650 million, net of income tax) included in continuing operations
- Favorable change in income (loss) from discontinued operations, net of income tax, of $986 million
- Net tax-related benefit in 2017 of $1.3 billion due to U.S. Tax Reform
- Net unfavorable change from our annual actuarial assumption reviews of $395 million ($297 million, net of income tax)
- Adjusted earnings available to common shareholders up $1.2 billion

(1) See "— Results of Operations — Consolidated Results" and "— Non-GAAP and Other Financial Disclosures" for reconciliations and definitions of non-GAAP financial measures.

Consolidated Results - Adjusted Earnings Highlights

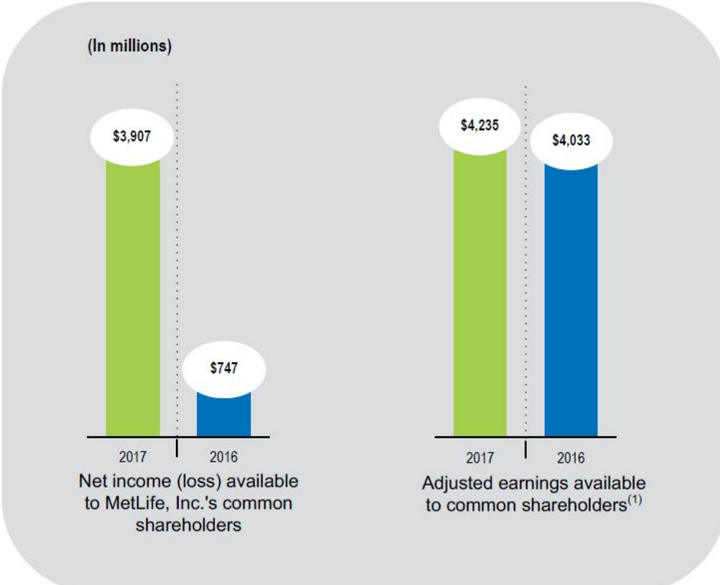
Adjusted earnings available to common shareholders up $1.2 billion:

- The primary drivers of the increase in adjusted earnings were higher net investment income due to a larger asset base and higher investment yields, the favorable impact of U.S. Tax Reform, other favorable tax items, favorable refinements to DAC and certain insurance-related liabilities, lower expenses and favorable underwriting, partially offset by higher interest credited expenses and the net unfavorable change from our annual actuarial assumption review.
- Our results for the year ended December 31, 2018 included the following:
  - a $349 million benefit from the IRS audit settlement related to the tax treatment of a wholly-owned U.K. investment subsidiary of MLIC, which was comprised of a $168 million tax benefit and a $181 million interest benefit
  - favorable impact from U.S. Tax Reform of $179 million, which includes a $78 million charge related to a revision in the estimate from the enactment of this reform
  - favorable reserve adjustment of $62 million, net of income tax, relating to certain variable annuity guarantees assumed from a former joint venture in Japan
  - a $37 million, net of income tax, favorable net insurance adjustment resulting from reserve and DAC modeling improvements in our individual disability insurance business
  - expenses associated with our previously announced unit cost initiative of $284 million, net of income tax
  - a $63 million, net of income tax, charge due to a current period increase in our incurred but not reported ("IBNR") life reserves, reflecting enhancements to our processes related to potential claims
  - a $60 million, net of income tax, increase in litigation reserves
  - unfavorable impact from our annual actuarial assumption review of $42 million, net of income tax
- Our results for 2017 included the following:
  - a tax charge of $298 million related to U.S. Tax Reform
  - net tax-related charges of $139 million consisting of (i) a $180 million net tax charge related to the repatriation of approximately $3.0 billion of cash following the post-Separation review of our capital needs, partially offset by a tax benefit associated with dividends from our non-U.S. operations, and (ii) a $41 million net tax-related benefit from the finalization of certain tax audits

- expenses associated with our previously announced unit cost initiative of $102 million, net of income tax
- a $73 million, net of income tax, charge for expenses incurred related to a guaranty fund assessment for Penn Treaty Network America Insurance Company (“Penn Treaty”)
- a $90 million, net of income tax, charge to increase certain RIS policy reserves
- a favorable reserve adjustment of $55 million, net of income tax, resulting from modeling improvements in the reserving process for our life business
- a charge of $36 million, net of income tax, for lease impairments
- a benefit of $12 million, net of income tax, related to a refinement to prior period reinsurance receivables in Australia

For a more in-depth discussion of our consolidated results, see “— Results of Operations — Consolidated Results,” “— Results of Operations — Consolidated Results — Adjusted Earnings” and “— Results of Operations — Segment Results and Corporate & Other.”

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016



Consolidated Results - Highlights

Net income (loss) available to MetLife, Inc.'s common shareholders up $3.2 billion:

- Lower losses from discontinued operations, net of income tax, of $1.7 billion
- Net tax-related benefit of $1.3 billion due to U.S. Tax Reform
- Unfavorable change in divested businesses of $861 million ($618 million, net of income tax)
- Unfavorable change in net investment gains (losses) of $625 million ($406 million, net of income tax)
- Adjusted earnings available to common shareholders up $202 million

(1) See "— Results of Operations — Consolidated Results" and "— Non-GAAP and Other Financial Disclosures" for reconciliations and definitions of non-GAAP financial measures.

Consolidated Results - Adjusted Earnings Highlights

Adjusted earnings available to common shareholders up $202 million:

- Results of operations positively impacted by annuities reinsurance activity with Brighthouse, the impact of 2017 and 2016 refinements made to DAC and certain insurance-related liabilities and the impact in both 2017 and 2016 of our annual actuarial assumption review, partially offset by the unfavorable impact of U.S. Tax Reform and other tax items
- Our results for 2017 included the following:
  - a tax charge of $298 million related to U.S. Tax Reform
  - net tax charges of $139 million consisting of (i) a $180 million net tax charge related to the repatriation of approximately $3.0 billion of cash following the post-Separation review of our capital needs, partially offset by a tax benefit associated with dividends from our non-U.S. operations, and (ii) a $41 million tax benefit from the finalization of certain tax audits
  - expenses associated with our previously announced unit cost initiative of $102 million, net of income tax
  - a $73 million, net of income tax, charge for expenses incurred related to a guaranty fund assessment for Penn Treaty and increases in asbestos and litigation reserves
  - a $90 million, net of income tax, charge to increase certain RIS policy reserves
  - a favorable reserve adjustment of $55 million, net of income tax, resulting from modeling improvements in the reserving process for our life business
  - a charge of $36 million, net of income tax, for lease impairments
  - a benefit of $12 million, net of income tax, related to a refinement to prior period reinsurance receivables in Australia
- Our results for 2016 included the following:
  - unfavorable reserve adjustments of $65 million, net of income tax, resulting from modeling improvements in the reserving process
  - a $44 million, net of income tax, charge related to an adjustment to reinsurance receivables in Australia
  - tax benefit of $25 million related to a change in tax rate in Japan, which includes a benefit of $20 million that pertains to prior periods
  - a $23 million, net of income tax, charge for an increase in litigation reserves
  - tax charge in Chile of $12 million as a result of tax reform legislation, which includes a charge of $10 million that pertains to prior periods

For a more in-depth discussion of our consolidated results, see "— Results of Operations — Consolidated Results," "— Results of Operations — Consolidated Results — Adjusted Earnings" and "— Results of Operations — Segment Results and Corporate & Other."

Consolidated Company Outlook

Our enterprise strategy is founded on the principle of One MetLife, where digital and simplified are the key enablers of our four strategic cornerstones: (i) optimizing value and risk by focusing on our businesses with higher internal rates of return, lower capital intensity, and maximum cash generation, (ii) driving operational excellence, by transforming into a high-performance operating company with a competitive cost structure, (iii) enabling our distribution channels to drive efficiency and productivity through digitalization and improved customer persistency, and (iv) undertaking a targeted approach to find the right solutions for the right customers through differentiated customer value propositions. This enterprise strategy has enhanced our ability to focus on the right markets, build clear differentiators, and continue to make the right investments to deliver shareholder value.

Post-Separation, we are well-positioned in less volatile and fee-based businesses; as a result, we expect our results to be less sensitive to interest rates. Assuming interest rates follow the observable forward yield curves as of the year ended December 31, 2018, we expect the average ratio of free cash flow to adjusted earnings over the two-year period of 2019 and 2020 to be 65% to 75%, assuming a 10-year U.S. Treasury rate between 2.0% and 4.5%. We believe that free cash flow is a key determinant of common stock dividends and common stock repurchases.

In light of the move away from a sustained low interest rate environment, compounding business growth and our expense initiative, we are targeting an adjusted return on equity, excluding accumulated other comprehensive income ("AOCI") other than foreign currency translation adjustments ("FCTA"), of 12% to 14% over the near-term. This target reflects our unit cost improvement program and the related initiative to invest $1.0 billion by 2020 to generate a pre-tax profit margin improvement of $800 million, which represents an approximate 200 basis point decline in our direct expense ratio, excluding total notable items related to direct expenses and pension risk transfers, by 2020 from our 2015 baseline year.

A key element of our enterprise strategy is to return excess capital to common shareholders through dividends and stock repurchases. In 2018, we returned $5.7 billion of capital to common shareholders through common stock dividends and common stock repurchases. Common stock repurchases are subject to the discretion of our Board of Directors and will depend upon our capital position, liquidity, financial strength and credit ratings, general market conditions, the market price of MetLife, Inc.'s common stock compared to management's assessment of the stock's underlying value, applicable regulatory approvals, and other legal and accounting factors. Further, we plan to maintain a liquidity buffer of $3.0 to $4.0 billion of liquid assets at the holding companies.

When making these and other projections, we must rely on the accuracy of our assumptions about future economic and business conditions, which can be affected by known and unknown risks and other uncertainties. Additional guidance from the U.S. Treasury, SEC or the FASB may require us to revise these projections in future periods.

Other Key Information

Basis of Presentation

Consolidation

Effective January 1, 2016, the Company converted its Japan operations from a fiscal year cutoff of November 30th to calendar year-end reporting. The Company reported the cumulative effect of the change in accounting principle in net income for the year ended December 31, 2016. See Notes 1 and 2 of the Notes to the Consolidated Financial Statements.

Discontinued Operations

The results of Brighthouse are reflected in the Company's consolidated financial statements as discontinued operations and, therefore, are presented as income (loss) from discontinued operations on the consolidated statements of operations. The reporting of discontinued operations had no impact on total consolidated net income (loss) for any of the years presented. See Note 3 of the Notes to the Consolidated Financial Statements for information on discontinued operations and ongoing transactions with Brighthouse.

Hurricanes

In 2018, Hurricanes Michael and Florence made landfall in the Florida Panhandle and North and South Carolina, respectively, causing loss of life and extensive property damage. As of December 31, 2018, MetLife's Property & Casualty business recognized losses from these hurricanes of $27 million ($21 million, net of income tax). Additional storm-related losses may be recorded in future periods as claims are received from insureds.

In 2017, Hurricanes Irma and Harvey made landfall in Florida and Texas, respectively, causing loss of life and extensive property damage. As of December 31, 2017, MetLife's Property & Casualty business recognized losses from these hurricanes of $65 million ($42 million, net of income tax).

Argentina Highly Inflationary

The inflation levels in Argentina have been elevated for several years. In the first half of 2018, Argentina's reported inflation rates began to increase dramatically and the Argentine central bank significantly increased interest rates in an effort to combat inflation. Based on Argentina's reported inflation rates and trends, as of July 1, 2018, we designated Argentina as a highly inflationary economy for accounting purposes. The change to highly inflationary accounting did not have a material impact on the Company's consolidated financial statements for the year ended December 31, 2018.

Industry Trends

We continue to be impacted by the changing global financial and economic environment that has been affecting the industry.

Financial and Economic Environment

Our business and results of operations are materially affected by conditions in the global capital markets and the economy generally. Stressed conditions, volatility and disruptions in global capital markets, particular markets, or financial asset classes can have an adverse effect on us, in part because we have a large investment portfolio and our insurance liabilities and derivatives are sensitive to changing market factors. See "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Adversely Affect Our Business, Results of Operations and Financial Condition."

We have market presence in numerous countries and, therefore, our business operations are exposed to risks posed by local and regional economic conditions. For example, MetLife is the largest provider of benefits to Mexican federal government personnel and public officials, however, the new administration of President López Obrador of Mexico is implementing an austerity plan which, among other measures, has eliminated benefits such as major medical insurance and contributions to additional savings benefit insurance for such individuals. See "Business — Regulation — Fiscal Measures" and "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Adversely Affect Our Business, Results of Operations and Financial Condition — Currency Exchange Rate Risk." See "— Executive Summary — Other Key Information — Argentina Highly Inflationary" for further information regarding the impact of Argentina's highly inflationary economy on the Company's consolidated financial statements.

We are closely monitoring political and economic conditions that might contribute to global market volatility and impact our business operations, investment portfolio and derivatives. For example, events following the U.K.'s referendum on June 23, 2016 and the uncertainties, including foreign currency exchange risks, associated with its planned withdrawal from the EU, have contributed to global market volatility. These factors could contribute to weakening Gross Domestic Product growth, primarily in the U.K. and, to a lesser degree, in continental Europe. The magnitude and longevity of the potential negative economic impacts would depend on the detailed agreements reached by the U.K. and the EU as a result of the negotiations regarding future trade and other arrangements. See "— Investments — Current Environment — Selected Country and Sector Investments." We are also monitoring the imposition of tariffs or other barriers to international trade, changes to international trade agreements, and their potential impacts on our business, results of operations and financial condition. In addition, the possibility of additional government shutdowns or a failure to raise the debt ceiling, due to a policy impasse or otherwise, could adversely impact our business and liquidity. See "Business — Regulation — Cross-Border Trade" and "Business — Regulation — Fiscal Measures." See also "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Adversely Affect Our Business, Results of Operations and Financial Condition" and "Risk Factors — Business Risks — The Global Nature of Our Operations Exposes Us to a Variety of Political, Legal, Operational, Economic and Other Risks."

Central banks around the world are using monetary policy to address regional economic conditions. For example, in the United States, citing a strengthening economy, the Federal Reserve Board has continued along its stated path of balance sheet tapering and the Federal Reserve Board's Federal Open Market Committee has continued to increase the federal funds rate, most recently in December 2018. Similarly, recognizing the economic recovery, the European Central Bank ended quantitative easing in December 2018 and left interest rates unchanged. In Japan, however, the Japanese government and the Bank of Japan are maintaining stimulus measures in order to boost inflation expectations and achieve sustainable economic growth in Japan. Such measures include the imposition of a negative rate on commercial bank deposits, continued government bond purchases and tax reform, including the lowering of the Japanese corporate tax rate and the delay until October 2019 of an increase in the consumption tax to 10%. Going forward, Japan's structural and demographic challenges may continue to limit its potential growth unless reforms that boost productivity are put into place. Japan's high public sector debt levels are mitigated by low refinancing risks. Further actions by central banks in the future may affect interest rates and risk markets in the U.S., Europe, Japan and other developed and emerging economies, and may ultimately result in market volatility. We cannot predict with certainty the effect of these actions or the impact on our business operations, investment portfolio or derivatives. See "— Investments — Current Environment."

Impact of a Sustained Low Interest Rate Environment

During sustained periods of low interest rates, we may have to invest insurance cash flows and reinvest the cash flows we received as interest or return of principal on our investments in lower yielding instruments. Moreover, borrowers may prepay or redeem the fixed income securities, mortgage loans and mortgage-backed securities in our investment portfolio with greater frequency in order to borrow at lower market rates. Therefore, some of our products expose us to the risk that a reduction in interest rates will reduce the difference between the amounts that we are required to credit on contracts in our general account and the rate of return we are able to earn on investments intended to support obligations under these contracts. This difference between interest earned and interest credited, or margin, is a key metric for the management of, and reporting for, many of our businesses.

Our expectations regarding future margins are an important component impacting the amortization of certain intangible assets such as DAC and VOBA. Significantly lower margins may cause us to accelerate the amortization, thereby reducing net income in the affected reporting period. Additionally, lower margins may also impact the recoverability of intangible assets such as goodwill, require the establishment of additional liabilities or trigger loss recognition events on certain policyholder liabilities. We review this long-term margin assumption, along with other assumptions, as part of our annual actuarial assumption review. See "— Results of Operations — Consolidated Results — Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017 — Actuarial Assumption Review and Certain Other Insurance Adjustments" for further information.

Some of our separate account products, including variable annuities, have certain minimum guarantee benefits. Declining interest rates increase the reserves we need to set up to protect the guarantee benefits, thereby reducing net income in the affected reporting period.

Mitigating Actions

The Company continues to be proactive in its investment and interest crediting rate strategies, as well as its product design and product mix. To mitigate the risk of unfavorable consequences from the low interest rate environment in the U.S., the Company applies disciplined asset/liability management ("ALM") strategies, including the use of interest rate derivatives. In some cases, the Company has entered into offsetting positions as part of its overall ALM strategy and to reduce volatility in net income. Lowering interest crediting rates on some products, or adjusting the dividend scale on traditional products, can help offset decreases in investment margins on some products. Our ability to lower interest crediting rates could be limited by competition, requirements to obtain regulatory approval, or contractual guarantees of minimum rates and may not match the timing or magnitude of changes in asset yields. As a result, our margins could decrease or potentially become negative. We are able to limit or close certain products to new sales in order to manage exposures. Business actions, such as shifting the sales focus to less interest rate sensitive products, can also mitigate this risk. In addition, the Company is well diversified across product, distribution, and geography. Certain of our businesses reported within our Latin America, EMEA, and Asia (exclusive of our Japan business) segments are not significantly interest rate or market sensitive; in particular, they have limited sensitivity to U.S. interest rates. The Company's primary exposure within these segments is insurance risk. We expect our non-U.S. businesses to grow faster than our U.S. businesses and, over time, to become a larger percentage of our total business. As a result of the foregoing, the Company expects to be able to substantially mitigate the negative impact of a sustained low interest rate environment in the U.S. on the Company's profitability. Based on a near to intermediate term analysis of a sustained lower interest rate environment in the U.S., the Company anticipates adjusted earnings will continue to increase, although at a slower growth rate.

Low Interest Rate Scenario

In formulating economic assumptions for its insurance contract assumptions, the Company uses projections that it makes regarding interest rates. Included in these assumptions is the projection that the 10-year Treasury rate will rise from 2.69% at December 31, 2018 to 4.25% in 8 years, by 2026 and remains level afterwards and that 10-year yields will reach 2.76%, 2.84% and 2.93% by December 31, 2019, 2020 and 2021, respectively. Also included is the projection that the three-month LIBOR rate will move from 2.81% at December 31, 2018 to 2.63%, 2.41% and 2.46% by December 31, 2019, 2020 and 2021, respectively. The low interest rate scenario reflects an assumed 100 basis point decline in all interest rate maturities compared to the base scenario from December 31, 2018 through December 31, 2021 (the "Low Interest Rate Scenario").

The following summarizes the impact of the Low Interest Rate Scenario on our U.S. dollar and non-U.S. dollar denominated positions. In addition, we have included disclosure on the potential impact on 2019, 2020 and 2021 net income using the same Low Interest Rate Scenario on the mark-to-market of derivative positions that do not qualify as accounting hedges.

Below is a summary of the rates we used for the Low Interest Rate Scenario versus our base scenario through 2021. These rates represent the most relevant short-term and long-term rates for our base scenario which uses LIBOR as the benchmark rate. See "Risk Factors — Economic Environment and Capital Risks — Difficult Economic Conditions May Adversely Affect Our Business, Results of Operations and Financial Condition — Interest Rate Risk" for information regarding the potential change from LIBOR to SOFR.

	2019		2020		2021	
	Low Interest Rate Scenario	Base Scenario	Low Interest Rate Scenario	Base Scenario	Low Interest Rate Scenario	Base Scenario
Three-month LIBOR	1.63%	2.63%	1.41%	2.41%	1.46%	2.46%
10-year U.S. Treasury	1.76%	2.76%	1.84%	2.84%	1.93%	2.93%

The Low Interest Rate Scenario assumes the three-month LIBOR to be 1.81% and the 10-year U.S. Treasury rate to be 1.69% at December 31, 2018. We assume the low interest rate scenario to be 100 basis points lower than the base scenario until December 31, 2021 for all interest rate maturities. In addition, in the Low Interest Rate Scenario, we assume credit spreads to remain constant from December 31, 2018 through the end of 2021 as compared to our base scenario. Further, we also include the impact of low interest rates on our pension and postretirement plan expenses. We allocate this impact across our segments and it is included in the segment discussion below. The discount rate used to value these plans is tied to high quality corporate bond yields. Accordingly, an extended low interest rate environment will result in increased pension and other postretirement benefit liabilities. However, these liabilities are offset by corresponding returns on the fixed income portfolio of pension and other postretirement benefit plan assets resulting in an overall decrease in expense.

Hypothetical Impact to Adjusted Earnings

Based on the above assumptions, we estimate an unfavorable combined long-term and short-term interest rate impact on our consolidated adjusted earnings from the Low Interest Rate Scenario of approximately $15 million in 2019, $140 million in 2020 and $265 million in 2021. Under the Low Interest Rate Scenario, our long-term businesses are negatively impacted by the larger gap between new money yields and the yield on assets rolling off the portfolio. However, there are positive offsets under the Low Interest Rate Scenario as short-term rates are much lower than the base scenario rates and the yield curve steepens beyond 2018. For example, our securities lending business performs better than our base scenario because it is driven by the slope of the yield curve rather than by the level of interest rates. In addition, derivative income is higher primarily due to our receiver swaps where we receive a fixed rate and pay a floating rate. Further, the favorable derivative impact under the Low Interest Rate Scenario will decrease in 2020 and 2021 compared to 2019. This is driven by higher rates on forward derivative positions protection that begin in 2020.

Hypothetical Impact to Our Mark-to-Market Derivative Positions

In addition to its impact on adjusted earnings, we estimated the effect of the Low Interest Rate Scenario on the mark-to-market of our derivative positions that do not qualify as accounting hedges. We applied the Low Interest Rate Scenario to these derivatives and compared the impact to that from interest rates in our base scenario. We hold a significant position in long-duration receive-fixed interest rate swaps to hedge reinvestment risk. These swaps are most sensitive to the 30-year and 10-year swap rates and we recognize gains as rates drop and recognize losses as rates rise. This estimated impact on the derivative mark-to-market does not include that of our VA program derivatives as the impact of low interest rates in the freestanding derivatives would be largely offset by the mark-to-market in net derivative gains (losses) for the related embedded derivative.

Based on these additional assumptions, we estimate the combined long-term and short-term interest rate impact of the Low Interest Rate Scenario on the mark-to-market of our derivative positions that do not qualify as accounting hedges to be an increase in net income of $719 million in 2019, and a decline in net income of $35 million in 2020 and $69 million in 2021. See "— Results of Operations — Consolidated Results" for information regarding our actual gains and losses on the Company's non-VA program derivatives due to interest rate changes which are included in net income.

Segments and Corporate & Other

The following discussion summarizes the impact of the above Low Interest Rate Scenario on the adjusted earnings of our segments, as well as Corporate & Other. See also "— Policyholder Liabilities — Policyholder Account Balances" for information regarding the account values subject to minimum guaranteed crediting rates.

U.S.

Group Benefits

In general, most of our group life insurance products in the U.S. segment are renewable term insurance and, therefore, have significant repricing flexibility. Interest rate risk arises mainly from minimum interest rate guarantees on retained asset accounts. These accounts have minimum interest crediting rate guarantees which range from 0.5% to 3.0%. Approximately half of these account balances are currently at their respective minimum interest crediting rates and we would expect to experience margin compression as we reinvest at lower interest rates. We have used interest rate derivatives to partially mitigate the risks of a sustained U.S. low interest rate environment. We also have exposure to interest rate risk in this business arising from our disability policy claim reserves. For these products, lower reinvestment rates cannot be offset by a reduction in liability crediting rates for established claim reserves. Group disability policies are generally renewable term policies. Rates may be adjusted on in-force policies at renewal based on the retrospective experience rating and current interest rate assumptions.

We estimate a favorable combined long-term and short-term interest rate impact on the adjusted earnings of our Group Benefits business from the Low Interest Rate Scenario of $35 million, $15 million and $5 million in 2019, 2020 and 2021, respectively.

Retirement and Income Solutions

RIS contains both short and long-duration products consisting of capital market products, pension risk transfers, structured settlements, and other benefit funding products. A significant portion of short-duration products are managed on a floating rate basis, which mitigates the impact of the low interest rate environment in the U.S. The sensitivities below do not include the impact of additional ALM actions that we may take in our capital markets business. The long-duration products have very predictable cash flows and our strategy is to match asset and liability durations consistent with our ALM policies. We also use interest rate swaps as part of our ALM strategy and to help protect income in this business. While we expect to experience margin compression as we reinvest at lower rates, the interest rate derivatives and the ALM strategy this portfolio follows should partially mitigate this risk. Also, based on cash flow estimates, only a small component of the invested asset base is subject to reinvestment risk. Reinvestment risk is defined for this purpose as the amount of reinvestment in 2019, 2020 and 2021 that would impact adjusted earnings due to reinvesting cash flows in the Low Interest Rate Scenario.

We estimate an unfavorable combined long-term and short-term interest rate impact on adjusted earnings on our RIS business from the Low Interest Rate Scenario of $15 million, $20 million, and $20 million in 2019, 2020, and 2021, respectively.

Property & Casualty

The product portfolio within Property & Casualty is primarily made up of six-month and annual term renewable policies, which allow for significant re-pricing flexibility with no policyholder benefits tied to interest rates. As a result, the interest rate risk for the Property & Casualty business is minimal, tied only to our portfolio reinvestment rates and our ability to offset the change of those rates through re-pricing efforts.

We estimate an unfavorable combined long-term and short-term interest rate impact on adjusted earnings on our Property & Casualty business from the Low Interest Rate Scenario of $0 million, $5 million and $10 million in 2019, 2020 and 2021, respectively.

Asia

Our Japan business offers traditional life insurance and accident & health products, many of which are denominated in U.S. dollars. To the extent the Japan life insurance portfolio is U.S. interest rate and LIBOR sensitive and we are unable to lower crediting rates to the customer, adjusted earnings will decline. We manage interest rate risk on our life products through a combination of product design features and ALM strategies.

We sell annuities in Japan which are predominantly single premium products with crediting rates set at the time of issue. This allows us to tightly manage product ALM, cash flows and net spreads, thus maintaining profitability.

We estimate an unfavorable combined long-term and short-term interest rate impact on the adjusted earnings of our Asia segment from the Low Interest Rate Scenario of $20 million, $45 million and $85 million in 2019, 2020 and 2021, respectively.

MetLife Holdings

Our interest rate sensitive life products include traditional and universal life products. Because the majority of our traditional life insurance business is participating, we can largely offset lower investment returns on assets backing our traditional life products through adjustments to the applicable dividend scale. In our universal life products, we manage interest rate risk through a combination of product design features and ALM strategies, including the use of interest rate derivative hedges. While we have the ability to lower crediting rates on certain in-force universal life policies to mitigate margin compression, such actions would be partially offset by increases in our liabilities related to policies with secondary guarantees.

In annuities, the impact on adjusted earnings from margin compression is concentrated in our deferred annuities where there are minimum interest rate guarantees. Under the Low Interest Rate Scenario, we assume that a larger percentage of customers will maintain their funds with us to take advantage of the attractive minimum guaranteed crediting rates and we expect to experience margin compression as we reinvest cash flows at lower interest rates. Partially offsetting this margin compression, we assume we will lower crediting rates on contractual reset dates for the portion of business that is not currently at minimum crediting rates. Additionally, we have various interest rate derivative positions to partially mitigate this risk.

Long-term care and retained assets accounts are interest rate sensitive. Long-term care reserves have exposure to lower reinvestment rates that cannot be offset by a reduction in liability crediting rates for established claim reserves. Long-term care policies are guaranteed renewable, and rates may be adjusted on a class basis with regulatory approval to reflect emerging experience. Our long-term care block is closed to new business. We review the discount rate assumptions and other assumptions associated with our long-term disability claim reserves no less frequently than annually and, with respect to interest rates, we set the discount rate on these reserves based on the prevailing interest rate environment at the time. Our retained asset accounts have minimum interest crediting rate guarantees which range from 0.5% to 4.0%, all of which are currently at their respective minimum interest crediting rates. While we expect to experience margin compression as we reinvest at lower rates, the interest rate derivatives held in this portfolio should partially mitigate this risk.

Reinvestment risk is defined for this purpose as the amount of reinvestment in 2019, 2020 and 2021 that would impact adjusted earnings due to reinvesting cash flows in the Low Interest Rate Scenario. For the life business, $3.4 billion, $4.5 billion and $4.0 billion in 2019, 2020 and 2021, respectively, of the asset base will be subject to reinvestment risk on an average asset base of $59.9 billion, $59.9 billion and $59.6 billion in 2019, 2020 and 2021, respectively. For our deferred annuities business, $1.1 billion, $0.8 billion, and $1.2 billion in 2019, 2020, and 2021, respectively, of the asset base will be subject to reinvestment risk on an average asset base of $16.2 billion, $15.4 billion and $14.7 billion in 2019, 2020 and 2021, respectively. For our long-term care portfolio, $1.6 billion, $1.6 billion and $1.6 billion of the asset base in 2019, 2020 and 2021, respectively, will be subject to reinvestment risk on an average asset base of $12.8 billion, $13.5 billion and $14.2 billion in 2019, 2020 and 2021, respectively.

We estimate an unfavorable combined long-term and short-term interest rate impact on the adjusted earnings of our MetLife Holdings segment from the Low Interest Rate Scenario of $10 million, $55 million and $100 million in 2019, 2020 and 2021, respectively.

Corporate & Other

Corporate & Other contains the surplus portfolios for the enterprise, the portfolios used to fund the capital needs of the Company and various reinsurance agreements. The surplus portfolios are subject to reinvestment risk; however, lower net investment income is significantly offset by lower interest expense on both fixed and variable rate debt. Under a lower interest rate environment, fixed rate debt is assumed to be either paid off when it matures or refinanced at a lower interest rate resulting in lower overall interest expense. Variable rate debt is indexed to the three-month LIBOR, which results in lower interest expense incurred.

We estimate an unfavorable combined long-term and short-term interest rate impact on the adjusted earnings of Corporate & Other from the Low Interest Rate Scenario of $5 million, $30 million and $55 million in 2019, 2020 and 2021, respectively.

Competitive Pressures

The life insurance industry remains highly competitive. See "Business — Competition." Product development is focused on differentiation leading to more intense competition with respect to product features and services. Several of the industry's products can be quite homogeneous and subject to intense price competition. Cost reduction efforts are a priority for industry players, with benefits resulting in price adjustments to favor customers and reinvestment capacity. Larger companies have the ability to invest in brand equity, product development, technology optimization, risk management, and innovation, which are among the fundamentals for sustained profitable growth in the life insurance industry. Insurers are focused on their core businesses, specifically in markets where they can achieve scale. Insurers are increasingly seeking alternative sources of revenue; there is a focus on monetization of assets, fee-based services, and opportunities to offer comprehensive solutions, which include providing value-added services along with traditional products. Financial strength and flexibility and technology modernization are prerequisites for sustainable growth in the life insurance industry. Larger market participants tend to have the capacity to invest in analytics, distribution, and information technology and have the capability to engage with the new digital entrants. There is a shift in distribution from proprietary to third party models in mature markets, due to the lower cost structure. Evolving customer expectations are having a significant impact on the competitive environment as insurers strive to offer the superior customer service demanded by an increasingly sophisticated industry client base. We believe that the continued volatility of the financial markets and its impact on the capital position of many competitors will continue to strain the competitive environment. Legislative and other changes affecting the regulatory environment can also affect the competitive environment within the life insurance industry and within the broader financial services industry. See "Business — Regulation." We believe that the aforementioned factors have highlighted financial strength, technology efficiency, and organizational agility as the most significant differentiators and, as a result, we believe the Company is well positioned to compete in this environment.

Regulatory Developments

In the United States, our life insurance companies are regulated primarily at the state level, with some products and services also subject to federal regulation. As life insurers introduce new and often more complex products, regulators refine capital requirements and introduce new reserving standards for the life insurance industry. Regulations recently adopted or currently under review can potentially impact the statutory reserve and capital requirements of the industry. See "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition." Regulators have also undertaken market and sales practices reviews of several markets or products, including equity-indexed annuities, variable annuities and group products and, in some states, instituted a moratorium on new reserve financing transactions. See "Business — Regulation," "Risk Factors — Economic Environment and Capital Markets Risks — Our Statutory Life Insurance Reserve Financings May Be Subject to Cost Increases, and New Financings May Be Subject to Limited Market Capacity," "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition" and "— Liquidity and Capital Resources — The Company — Capital — Affiliated Captive Reinsurance Transactions."

Summary of Critical Accounting Estimates

The preparation of financial statements in conformity with GAAP requires management to adopt accounting policies and make estimates and assumptions that affect amounts reported on the Consolidated Financial Statements. For a discussion of our significant accounting policies, see Note 1 of the Notes to the Consolidated Financial Statements. The most critical estimates include those used in determining:

(i) liabilities for future policy benefits and the accounting for reinsurance;

(ii) capitalization and amortization of DAC and the establishment and amortization of VOBA;

(iii) estimated fair values of investments in the absence of quoted market values;

(iv) investment impairments;

(v) estimated fair values of freestanding derivatives and the recognition and estimated fair value of embedded derivatives requiring bifurcation;

(vi) measurement of goodwill and related impairment;

(vii) measurement of employee benefit plan liabilities;

(viii) measurement of income taxes and the valuation of deferred tax assets; and

(ix) liabilities for litigation and regulatory matters.

In addition, the application of acquisition accounting requires the use of estimation techniques in determining the estimated fair values of assets acquired and liabilities assumed — the most significant of which relate to the aforementioned critical accounting estimates. In applying these policies and estimates, management makes subjective and complex judgments that frequently require assumptions about matters that are inherently uncertain. Many of these policies, estimates and related judgments are common in the insurance and financial services industries; others are specific to our business and operations. Actual results could differ from these estimates.

Liability for Future Policy Benefits

Generally, future policy benefits are payable over an extended period of time and related liabilities are calculated as the present value of future expected benefits to be paid, reduced by the present value of future expected premiums. Such liabilities are established based on methods and underlying assumptions in accordance with GAAP and applicable actuarial standards. Principal assumptions used in the establishment of liabilities for future policy benefits are mortality, morbidity, policy lapse, renewal, retirement, disability incidence, disability terminations, investment returns, inflation, expenses and other contingent events as appropriate to the respective product type and geographical area. These assumptions are established at the time the policy is issued and are intended to estimate the experience for the period the policy benefits are payable. Utilizing these assumptions, liabilities are established on a block of business basis. If experience is less favorable than assumed, additional liabilities may be established, resulting in a charge to policyholder benefits and claims.

Future policy benefit liabilities for disabled lives are estimated using the present value of benefits method and experience assumptions as to claim terminations, expenses and interest.

Liabilities for unpaid claims are estimated based upon our historical experience and other actuarial assumptions that consider the effects of current developments, anticipated trends and risk management programs, reduced for anticipated salvage and subrogation.

Future policy benefit liabilities for minimum death and income benefit guarantees relating to certain annuity contracts are based on estimates of the expected value of benefits in excess of the projected account balance, recognizing the excess ratably over the accumulation period based on total expected assessments. Liabilities for ULSG and paid-up guarantees are determined by estimating the expected value of death benefits payable when the account balance is projected to be zero and recognizing those benefits ratably over the accumulation period based on total expected assessments. The assumptions used in estimating the secondary and paid-up guarantee liabilities are consistent with those used for amortizing DAC, and are thus subject to the same variability and risk. The assumptions of investment performance and volatility for variable products are consistent with historical experience of the appropriate underlying equity index, such as the S&P 500 Index.

We regularly review our estimates of liabilities for future policy benefits and compare them with our actual experience. Differences between actual experience and the assumptions used in pricing these policies and guarantees, as well as in the establishment of the related liabilities, result in variances in profit and could result in losses.

See Note 4 of the Notes to the Consolidated Financial Statements for additional information on our liability for future policy benefits.

Reinsurance

Accounting for reinsurance requires extensive use of assumptions and estimates, particularly related to the future performance of the underlying business and the potential impact of counterparty credit risks. We periodically review actual and anticipated experience compared to the aforementioned assumptions used to establish assets and liabilities relating to ceded and assumed reinsurance and evaluate the financial strength of counterparties to our reinsurance agreements using criteria similar to that evaluated in our security impairment process. See "— Investment Impairments." Additionally, for each of our reinsurance agreements, we determine whether the agreement provides indemnification against loss or liability relating to insurance risk, in accordance with applicable accounting standards. We review all contractual features, including those that may limit the amount of insurance risk to which the reinsurer is subject or features that delay the timely reimbursement of claims. If we determine that a reinsurance agreement does not expose the reinsurer to a reasonable possibility of a significant loss from insurance risk, we record the agreement using the deposit method of accounting.

See Note 6 of the Notes to the Consolidated Financial Statements for additional information on our reinsurance programs.

Deferred Policy Acquisition Costs and Value of Business Acquired

We incur significant costs in connection with acquiring new and renewal insurance business. Costs that relate directly to the successful acquisition or renewal of insurance contracts are capitalized as DAC. In addition to commissions, certain direct-response advertising expenses and other direct costs, deferrable costs include the portion of an employee's total compensation and benefits related to time spent selling, underwriting or processing the issuance of new and renewal insurance business only with respect to actual policies acquired or renewed. We utilize various techniques to estimate the portion of an employee's time spent on qualifying acquisition activities that result in actual sales, including surveys, interviews, representative time studies and other methods. These estimates include assumptions that are reviewed and updated on a periodic basis to reflect significant changes in processes or distribution methods.

VOBA represents the excess of book value over the estimated fair value of acquired insurance, annuity, and investment-type contracts in force at the acquisition date. For certain acquired blocks of business, the estimated fair value of the in-force contract obligations exceeded the book value of assumed in-force insurance policy liabilities, resulting in negative VOBA, which is presented separately from VOBA as an additional insurance liability included in other policy-related balances. The estimated fair value of the acquired obligations is based on projections, by each block of business, of future policy and contract charges, premiums, mortality and morbidity, separate account performance, surrenders, expenses, investment returns, nonperformance risk adjustment and other factors. Actual experience on the purchased business may vary from these projections. The recovery of DAC and VOBA is dependent upon the future profitability of the related business.

Separate account rates of return on variable universal life contracts and variable deferred annuity contracts affect in-force account balances on such contracts each reporting period, which can result in significant fluctuations in amortization of DAC and VOBA. Our practice to determine the impact of gross profits resulting from returns on separate accounts assumes that long-term appreciation in equity markets is not changed by short-term market fluctuations, but is only changed when sustained interim deviations are expected. We monitor these events and only change the assumption when our long-term expectation changes. The effect of an increase (decrease) by 100 basis points in the assumed future rate of return is reasonably likely to result in a decrease (increase) in the DAC and VOBA amortization with an offset to our unearned revenue liability which nets to approximately $40 million. We use a mean reversion approach to separate account returns where the mean reversion period is five years with a long-term separate account return after the five-year reversion period is over. The current long-term rate of return assumption for the variable universal life contracts and variable deferred annuity contracts is 7.0%.

We periodically review long-term assumptions underlying the projections of estimated gross margins and profits. These assumptions primarily relate to investment returns, policyholder dividend scales, interest crediting rates, mortality, persistency, and expenses to administer business. Assumptions used in the calculation of estimated gross margins and profits which may have significantly changed are updated annually. If the update of assumptions causes expected future gross margins and profits to increase, DAC and VOBA amortization will decrease, resulting in a current period increase to earnings. The opposite result occurs when the assumption update causes expected future gross margins and profits to decrease.

Our most significant assumption updates resulting in a change to expected future gross margins and profits and the amortization of DAC and VOBA are due to revisions to expected future investment returns, expenses, in-force or persistency assumptions and policyholder dividends on participating traditional life contracts, variable and universal life contracts and annuity contracts. We expect these assumptions to be the ones most reasonably likely to cause significant changes in the future. Changes in these assumptions can be offsetting and we are unable to predict their movement or offsetting impact over time.

At December 31, 2018, 2017 and 2016, DAC and VOBA for the Company was $18.9 billion, $18.4 billion and $17.6 billion, respectively. Amortization of DAC and VOBA associated with the variable and universal life and annuity contracts was significantly impacted by movements in equity markets. The following illustrates the effect on DAC and VOBA of changing each of the respective assumptions, as well as updating estimated gross margins or profits with actual gross margins or profits during the years ended December 31, 2018, 2017 and 2016. Increases (decreases) in DAC and VOBA balances, as presented below, resulted in a corresponding decrease (increase) in amortization.

	Years Ended December 31,		
	2018	**2017**	**2016**
		(In millions)	
General account investment return	$ 22	$ (5)	$ 5
Separate account investment return	(42)	21	(3)
Net investment/Net derivative gains (losses) and GMIB	(215)	58	270
In-force/Persistency	26	(10)	(63)
Policyholder dividends, expense and other	—	68	(187)
Total	$ (209)	$ 132	$ 22

Significant items contributing to the changes to DAC and VOBA amortization in 2018 consisted of the following:

- Net increase in amortization of $215 million associated with net investment/net derivative gains (losses) and GMIB, primarily driven by the following:
  - An increase in amortization of $90 million from net derivative gains from freestanding derivatives hedging the variable annuity guarantees, partially offset by a decrease in amortization of approximately $30 million from net derivative losses resulting from the increases in variable annuity guarantee obligations.
  - An increase in amortization of approximately $35 million associated with gains from GMIB hedges and the decreases in GMIB obligations.
  - Net increase in amortization of approximately $100 million from the annual actuarial assumption update and other investment activities.

Significant items contributing to the changes to DAC and VOBA amortization in 2017 consisted of the following:

- Net decrease in amortization of $58 million associated with net investment/net derivative gains (losses) and GMIB, primarily driven by the following:
  - A decrease in amortization of approximately $90 million from net derivative losses from freestanding derivatives hedging the variable annuity guarantees, largely offset by an increase in amortization of approximately $80 million from net derivative gains resulting from the decreases in variable annuity guarantee obligations.
  - Net decrease in amortization of approximately $45 million from other investment activities.
- Net decrease in amortization of $68 million related to policyholder dividends, expense and other primarily driven by the following:
  - A decrease in amortization of approximately $60 million from the annual actuarial assumption update of the closed block, partially offset by an increase in amortization of approximately $40 million from updating the dividend scales of the participating life contracts.
  - A decrease in amortization of approximately $55 million due to an adjustment related to certain participating whole life business assumed from Brighthouse.

Significant items contributing to the changes to DAC and VOBA amortization in 2016 consisted of the following:

- Net decrease in amortization of $270 million associated with net investment/net derivatives gains (losses) and GMIB, primarily driven by the following:
  - A decrease in amortization of approximately $180 million from net derivative losses from freestanding derivatives hedging the variable annuity guarantees.
  - A decrease in amortization of approximately $20 million from net derivative losses resulting from the increases in the variable annuity guarantee obligations.
  - A decrease in amortization of approximate $40 million primarily associated with losses from GMIB hedges and the decreases in GMIB obligations.
  - Net decrease in amortization of approximately $30 million from the annual actuarial assumption update and other investment activities.
- An increase in amortization of $187 million related to policyholder dividends, expense and other primarily driven by the following:
  - An increase in amortization of approximately $110 million from the annual actuarial assumption update of the closed block.
  - An increase in amortization of approximately $70 million from updating the dividend scales of the participating life contracts.

Our DAC and VOBA balance is also impacted by unrealized investment gains (losses) and the amount of amortization which would have been recognized if such gains and losses had been realized. The decrease in unrealized investment gains (losses) increased the DAC and VOBA balance by $521 million, $529 million and $163 million in 2018, 2017 and 2016, respectively. See Notes 5 and 8 of the Notes to the Consolidated Financial Statements for information regarding the DAC and VOBA offset to unrealized investment gains (losses).

Estimated Fair Value of Investments

In determining the estimated fair value of our investments, fair values are based on unadjusted quoted prices for identical investments in active markets that are readily and regularly obtainable. When such unadjusted quoted prices are not available, estimated fair values are based on quoted prices in markets that are not active, quoted prices for similar but not identical investments, or other observable inputs. If these inputs are not available, or observable inputs are not determinable, unobservable inputs and/or adjustments to observable inputs requiring management judgment are used to determine the estimated fair value of investments.

The methodologies, assumptions and inputs utilized are described in Note 10 of the Notes to the Consolidated Financial Statements.

Financial markets are susceptible to severe events evidenced by rapid depreciation in asset values accompanied by a reduction in asset liquidity. Our ability to sell investments, or the price ultimately realized for investments, depends upon the demand and liquidity in the market and increases the use of judgment in determining the estimated fair value of certain investments.

Investment Impairments

One of the significant estimates related to fixed maturity securities available-for-sale ("AFS") is our impairment evaluation. The assessment of whether an other-than-temporary impairment ("OTTI") occurred is based on our case-by-case evaluation of the underlying reasons for the decline in estimated fair value on a security-by-security basis. Our review of each security for OTTI includes an analysis of gross unrealized losses by three categories of severity and/or age of gross unrealized loss. An extended and severe unrealized loss position on a security may not have any impact on the ability of the issuer to service all scheduled interest and principal payments. Accordingly, such an unrealized loss position may not impact our evaluation of recoverability of all contractual cash flows or the ability to recover an amount at least equal to its amortized cost based on the present value of the expected future cash flows to be collected.

Additionally, we consider a wide range of factors about the security issuer and use our best judgment in evaluating the cause of the decline in the estimated fair value of the security and in assessing the prospects for near-term recovery. Inherent in our evaluation of the security are assumptions and estimates about the operations of the issuer and its future earnings potential. Factors we consider in the OTTI evaluation process are described in Note 8 of the Notes to the Consolidated Financial Statements.

The determination of the amount of allowances and impairments on the remaining invested asset classes is highly subjective and is based upon our periodic evaluation and assessment of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available.

See Notes 1 and 8 of the Notes to the Consolidated Financial Statements for additional information relating to our determination of the amount of allowances and impairments.

Derivatives

The determination of the estimated fair value of freestanding derivatives, when quoted market values are not available, is based on market standard valuation methodologies and inputs that management believes are consistent with what other market participants would use when pricing the instruments. Derivative valuations can be affected by changes in interest rates, foreign currency exchange rates, financial indices, credit spreads, default risk, nonperformance risk, volatility, liquidity and changes in estimates and assumptions used in the pricing models. See Note 10 of the Notes to the Consolidated Financial Statements for additional details on significant inputs into the OTC derivative pricing models and credit risk adjustment.

We issue variable annuity products with guaranteed minimum benefits, some of which are embedded derivatives measured at estimated fair value separately from the host variable annuity product, with changes in estimated fair value reported in net derivative gains (losses). The estimated fair values of these embedded derivatives are determined based on the present value of projected future benefits minus the present value of projected future fees. The projections of future benefits and future fees require capital market and actuarial assumptions, including expectations concerning policyholder behavior. A risk neutral valuation methodology is used under which the cash flows from the guarantees are projected under multiple capital market scenarios using observable risk-free rates. The valuation of these embedded derivatives also includes an adjustment for our nonperformance risk and risk margins for non-capital market inputs. The nonperformance risk adjustment, which is captured as a spread over the risk-free rate in determining the discount rate to discount the cash flows of the liability, is determined by taking into consideration publicly available information relating to spreads in the secondary market for MetLife, Inc.'s debt, including related credit default swaps. These observable spreads are then adjusted, as necessary, to reflect the priority of these liabilities and the claims paying ability of the issuing insurance subsidiaries compared to MetLife, Inc. Risk margins are established to capture the non-capital market risks of the instrument which represent the additional compensation a market participant would require to assume the risks related to the uncertainties in certain actuarial assumptions. The establishment of risk margins requires the use of significant management judgment, including assumptions of the amount and cost of capital needed to cover the guarantees.

The table below illustrates the impact that a range of reasonably likely variances in credit spreads would have on our consolidated balance sheet, excluding the effect of income tax, related to the embedded derivative valuation on certain variable annuity products measured at estimated fair value. In determining the ranges, we have considered current market conditions, as well as the market level of spreads that can reasonably be anticipated over the near term. The ranges do not reflect extreme market conditions such as those experienced during the 2008-2009 financial crisis, as we do not consider those to be reasonably likely events in the near future.

The impact of the range of reasonably likely variances in credit spreads increased significantly as compared to prior periods. However, these estimated effects do not take into account potential changes in other variables, such as equity price levels and market volatility, which can also contribute significantly to changes in carrying values. Therefore, the table does not necessarily reflect the ultimate impact on the consolidated financial statements under the credit spread variance scenarios presented below.

	Changes in Balance Sheet Carrying Value At December 31, 2018	
	Policyholder Account Balances	DAC and VOBA
	(In millions)	
100% increase in our credit spread	$ 595	$ 36
As reported	$ 793	$ 70
50% decrease in our credit spread	$ 906	$ 89

The accounting for derivatives is complex and interpretations of accounting standards continue to evolve in practice. If it is determined that hedge accounting designations were not appropriately applied, reported net income could be materially affected. Assessments of hedge effectiveness and measurements of ineffectiveness of hedging relationships are also subject to interpretations and estimations and different interpretations or estimates may have a material effect on the amount reported in net income.

Variable annuities with guaranteed minimum benefits may be more costly than expected in volatile or declining equity markets. Market conditions including, but not limited to, changes in interest rates, equity indices, market volatility and foreign currency exchange rates, changes in our nonperformance risk, variations in actuarial assumptions regarding policyholder behavior, mortality and risk margins related to non-capital market inputs, may result in significant fluctuations in the estimated fair value of the guarantees that could materially affect net income. If interpretations change, there is a risk that features previously not bifurcated may require bifurcation and reporting at estimated fair value on the consolidated financial statements and respective changes in estimated fair value could materially affect net income.

Additionally, we ceded the risk associated with certain of the variable annuities with guaranteed minimum benefits described in the preceding paragraphs. The value of the embedded derivatives on the ceded risk is determined using a methodology consistent with that described previously for the guarantees directly written by us with the exception of the input for nonperformance risk that reflects the credit of the reinsurer. Because certain of the direct guarantees do not meet the definition of an embedded derivative and, thus are not accounted for at fair value, significant fluctuations in net income may occur since the change in fair value of the embedded derivative on the ceded risk is being recorded in net income without a corresponding and offsetting change in fair value of the direct guarantee.

See Note 9 of the Notes to the Consolidated Financial Statements for additional information on our derivatives and hedging programs.

Goodwill

Goodwill is tested for impairment at least annually or more frequently if events or circumstances, such as adverse changes in the business climate, indicate that there may be justification for conducting an interim test.

For purposes of goodwill impairment testing, if the carrying value of a reporting unit exceeds its estimated fair value, the implied fair value of the reporting unit goodwill is compared to the carrying value of that goodwill to measure the amount of impairment loss, if any. In such instances, the implied fair value of the goodwill is determined in the same manner as the amount of goodwill that would be determined in a business acquisition. The key inputs, judgments and assumptions necessary in determining estimated fair value of the reporting units include projected adjusted earnings, current book value, the level of economic capital required to support the mix of business, long-term growth rates, comparative market multiples, the account value of in-force business, projections of new and renewed business, as well as margins on such business, the level of interest rates, credit spreads, equity market levels, and the discount rate that we believe is appropriate for the respective reporting unit.

In the third quarter of 2018, the Company tested the MetLife Holdings life reporting unit for impairment using the actuarial based embedded value fair valuation approach. The estimated fair value of the reporting unit exceeded the carrying value by approximately 25% and, therefore, the reporting unit was not impaired. If we had assumed that the discount rate was 100 basis points higher than the discount rate used, the estimated fair value of the MetLife Holdings life reporting unit would have been higher than the carrying value by approximately 5%. The MetLife Holdings life reporting unit consists of operations relating to products and businesses no longer actively marketed by the Company. As of December 31, 2018, the amount of goodwill allocated to the MetLife Holdings life reporting unit was $887 million.

The Company also performed its annual goodwill impairment tests of all other reporting units during the third quarter of 2018 using a qualitative assessment and/or quantitative assessments under the market multiple and discounted cash flow valuation approaches based on best available data as of June 30, 2018 and concluded that the estimated fair values of all such reporting units were substantially in excess of their carrying values and, therefore, goodwill was not impaired.

We apply significant judgment when determining the estimated fair value of our reporting units and when assessing the relationship of market capitalization to the aggregate estimated fair value of our reporting units. The valuation methodologies utilized are subject to key judgments and assumptions that are sensitive to change. Estimates of fair value are inherently uncertain and represent only management's reasonable expectation regarding future developments. These estimates and the judgments and assumptions upon which the estimates are based will, in all likelihood, differ in some respects from actual future results. Declines in the estimated fair value of our reporting units could result in goodwill impairments in future periods which could materially adversely affect our results of operations or financial position.

See Note 11 of the Notes to the Consolidated Financial Statements for additional information on our goodwill.

Employee Benefit Plans

Certain subsidiaries of MetLife, Inc. sponsor and/or administer various plans that provide defined benefit pension and other postretirement benefits covering eligible employees. See Note 17 of the Notes to the Consolidated Financial Statements for information on amendments to our U.S. benefit plans. The calculation of the obligations and expenses associated with these plans requires an extensive use of assumptions such as the discount rate, expected rate of return on plan assets, rate of future compensation increases and healthcare cost trend rates, as well as assumptions regarding participant demographics such as rate and age of retirement, withdrawal rates and mortality. In consultation with external actuarial firms, we determine these assumptions based upon a variety of factors such as historical experience of the plan and its assets, currently available market and industry data, and expected benefit payout streams.

We determine the expected rate of return on plan assets based upon an approach that considers inflation, real return, term premium, credit spreads, equity risk premium and capital appreciation, as well as expenses, expected asset manager performance, asset weights and the effect of rebalancing. Given the amount of plan assets as of December 31, 2017, the beginning of the measurement year, if we had assumed an expected rate of return for both our pension and other postretirement benefit plans that was 100 basis points higher or 100 basis points lower than the rates we assumed, the change in our net periodic benefit costs would have been a decrease of $109 million and an increase of $109 million, respectively, in 2018. This considers only changes in our assumed long-term rate of return given the level and mix of invested assets at the beginning of the year, without consideration of possible changes in any of the other assumptions described above that could ultimately accompany any changes in our assumed long-term rate of return.

We determine the discount rates used to value the Company's pension and postretirement obligations, based upon rates commensurate with current yields on high quality corporate bonds. Given our pension and postretirement obligations as of December 31, 2017, the beginning of the measurement year, if we had assumed a discount rate for both our pension and postretirement benefit plans that was 100 basis points higher or 100 basis points lower than the rates we assumed, the change in our net periodic benefit costs would have been a decrease of $117 million and an increase of $113 million, respectively, in 2018. This considers only changes in our assumed discount rates without consideration of possible changes in any of the other assumptions described above that could ultimately accompany any changes in our assumed discount rate. The assumptions used may differ materially from actual results due to, among other factors, changing market and economic conditions and changes in participant demographics. These differences may have a significant impact on the Company's consolidated financial statements and liquidity.

See Note 17 of the Notes to the Consolidated Financial Statements for additional discussion of assumptions used in measuring liabilities relating to our employee benefit plans.

Income Taxes

We provide for federal, state and foreign income taxes currently payable, as well as those deferred due to temporary differences between the financial reporting and tax bases of assets and liabilities. Our accounting for income taxes represents our best estimate of various events and transactions. Tax laws are often complex and may be subject to differing interpretations by the taxpayer and the relevant governmental taxing authorities. In establishing a provision for income tax expense, we must make judgments and interpretations about the application of inherently complex tax laws. We must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions in which we conduct business.

In establishing a liability for unrecognized tax benefits, assumptions may be made in determining whether, and to what extent, a tax position may be sustained. Once established, unrecognized tax benefits are adjusted when there is more information available or when events occur requiring a change.

Valuation allowances are established against deferred tax assets when management determines, based on available information, that it is more likely than not that deferred income tax assets will not be realized. Significant judgment is required in determining whether valuation allowances should be established, as well as the amount of such allowances. See Note 1 of the Notes to the Consolidated Financial Statements for additional information relating to our determination of such valuation allowances.

We may be required to change our provision for income taxes when estimates used in determining valuation allowances on deferred tax assets significantly change, or when receipt of new information indicates the need for adjustment in valuation allowances. Additionally, future events, such as changes in tax laws, tax regulations, or interpretations of such laws or regulations, could have an impact on the provision for income tax and the effective tax rate. Any such changes could significantly affect the amounts reported on the consolidated financial statements in the year these changes occur.

In December 2017, U.S. Tax Reform was signed into law. U.S. GAAP requires that the impact of tax legislation be recognized in the period in which the law was enacted. As a result, the Company recognized the tax effects of U.S. Tax Reform for the year ended December 31, 2017. While the Company recorded a reasonable estimate of the tax effects of U.S. Tax Reform in the period of enactment, its income tax accounting was not complete due to uncertainties that existed at the time. Accordingly, certain U.S. Tax Reform amounts were revised in the Company's consolidated financial statements for the year ended December 31, 2018.

See also Notes 1 and 18 of the Notes to the Consolidated Financial Statements for additional information on our income taxes.

Litigation Contingencies

We are a defendant in a large number of litigation matters and are involved in a number of regulatory investigations. Given the large and/or indeterminate amounts sought in certain of these matters and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material effect on the Company's consolidated net income or cash flows in particular quarterly or annual periods. Liabilities are established when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Liabilities related to certain lawsuits, including our asbestos-related liability, are especially difficult to estimate due to the limitation of reliable data and uncertainty regarding numerous variables that can affect liability estimates. On a quarterly and annual basis, we review relevant information with respect to liabilities for litigation, regulatory investigations and litigation-related contingencies to be reflected in our consolidated financial statements. It is possible that an adverse outcome in certain of our litigation and regulatory investigations, including asbestos-related cases, or the use of different assumptions in the determination of amounts recorded could have a material effect upon our consolidated net income or cash flows in particular quarterly or annual periods.

See Note 20 of the Notes to the Consolidated Financial Statements for additional information regarding our assessment of litigation contingencies.

Economic Capital

Economic capital is an internally developed risk capital model, the purpose of which is to measure the risk in the business and to provide a basis upon which capital is deployed. The economic capital model accounts for the unique and specific nature of the risks inherent in our business.

Our economic capital model, coupled with considerations of local capital requirements, aligns segment allocated equity with emerging standards and consistent risk principles. The model applies statistics-based risk evaluation principles to the material risks to which the Company is exposed. These consistent risk principles include calibrating required economic capital shock factors to a specific confidence level and time horizon while applying an industry standard method for the inclusion of diversification benefits among risk types. Economic capital-based risk estimation is an evolving science and industry best practices have emerged and continue to evolve. Areas of evolving industry best practices include stochastic liability valuation techniques, alternative methodologies for the calculation of diversification benefits, and the quantification of appropriate shock levels. MetLife's management is responsible for the ongoing production and enhancement of the economic capital model and reviews its approach periodically to ensure that it remains consistent with emerging industry practice standards.

Segment net investment income is credited or charged based on the level of allocated equity; however, changes in allocated equity do not impact our consolidated net investment income, income (loss) from continuing operations, net of income tax, or adjusted earnings.

Net investment income is based upon the actual results of each segment's specifically identifiable investment portfolios adjusted for allocated equity. Other costs are allocated to each of the segments based upon: (i) a review of the nature of such costs; (ii) time studies analyzing the amount of employee compensation costs incurred by each segment; and (iii) cost estimates included in the Company's product pricing.

Acquisitions and Dispositions

Separation of Brighthouse

For information regarding the Separation, the Company's 2018 sale of the FVO Brighthouse Common Stock, and ongoing transactions between MetLife and Brighthouse, see Notes 3 and 12 of the Notes to the Consolidated Financial Statements.

Disposition of MetLife Afore, S.A. de C.V.

For information regarding the Company's 2018 disposition of MetLife Afore, its pension fund management business in Mexico, see Note 3 of the Notes to the Consolidated Financial Statements.

Acquisition of Logan Circle Partners, L.P.

In 2017, the Company completed the acquisition of Logan Circle Partners, L.P. ("Logan Circle Partners"), from Fortress Investment Group LLC, for approximately $250 million in cash. Logan Circle Partners was a fundamental research-based investment manager providing institutional clients actively managed investment solutions across a broad spectrum of fixed income strategies.

U.S. Retail Advisor Force Divestiture

In 2016, MetLife, Inc. completed the sale to Massachusetts Mutual Life Insurance Company of its U.S. retail advisor force and certain assets associated with the MetLife Premier Client Group, including all of the issued and outstanding shares of MetLife's affiliated broker-dealer, MSI, a wholly-owned subsidiary of MetLife, Inc. (collectively, the "U.S. Retail Advisor Force Divestiture") for $291 million. See Note 3 of the Notes to the Consolidated Financial Statements for further information.

Results of Operations

Consolidated Results

Business Overview. Overall sales for the year ended December 31, 2018 increased over 2017 levels reflecting higher sales in the majority of our businesses. In our U.S. segment, improved sales in our RIS business were partially offset by slightly lower sales in our Group Benefits business as the impact of strong jumbo case sales in our core products in 2017 more than offset strong sales in our voluntary products in 2018. The improvement in RIS was the result of higher sales of pension risk transfers, most notably a large pension risk transfer transaction in the second quarter of 2018, stable value, specialized life insurance, and structured settlement products, partially offset by lower funding agreement issuances. An increase in sales in our Asia segment was primarily driven by growth in sales of foreign currency-denominated annuity and life products, as well as accident & health products, in Japan, partially offset by a decrease in sales in Korea and Hong Kong. In our Latin America segment, sales increased compared to 2017, driven by higher individual accident & health, credit life and retirement product sales in Chile, partially offset by lower pension and group medical sales in Mexico. Sales in EMEA decreased primarily due to the closure of the U.K. wealth management product to new business in the third quarter of 2017 and a decline in sales of our employee benefits product in the Gulf region. Revenues in our MetLife Holdings segment decreased as a result of the discontinuance of the marketing of life and annuity products in early 2017.

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Revenues			
Premiums	$ 43,840	$ 38,992	$ 37,202
Universal life and investment-type product policy fees	5,502	5,510	5,483
Net investment income	16,166	17,363	16,790
Other revenues	1,880	1,341	1,685
Net investment gains (losses)	(298)	(308)	317
Net derivative gains (losses)	851	(590)	(690)
Total revenues	67,941	62,308	60,787
Expenses			
Policyholder benefits and claims and policyholder dividends	43,907	39,544	37,581
Interest credited to policyholder account balances	4,013	5,607	5,176
Capitalization of DAC	(3,254)	(3,002)	(3,152)
Amortization of DAC and VOBA	2,975	2,681	2,718
Amortization of negative VOBA	(56)	(140)	(269)
Interest expense on debt	1,122	1,129	1,157
Other expenses	12,927	12,953	13,295
Total expenses	61,634	58,772	56,506
Income (loss) from continuing operations before provision for income tax	6,307	3,536	4,281
Provision for income tax expense (benefit)	1,179	(1,470)	693
Income (loss) from continuing operations, net of income tax	5,128	5,006	3,588
Income (loss) from discontinued operations, net of income tax	—	(986)	(2,734)
Net income (loss)	5,128	4,020	854
Less: Net income (loss) attributable to noncontrolling interests	5	10	4
Net income (loss) attributable to MetLife, Inc.	5,123	4,010	850
Less: Preferred stock dividends	141	103	103
Net income (loss) available to MetLife, Inc.’s common shareholders	$ 4,982	$ 3,907	$ 747

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

During the year ended December 31, 2018, net income (loss) increased $1.1 billion from 2017, primarily driven by favorable changes in net derivative gains (losses), adjusted earnings, income (loss) from discontinued operations, and results from our divested businesses, partially offset by 2017 tax-related benefits, primarily related to U.S. Tax Reform.

Management of Investment Portfolio and Hedging Market Risks with Derivatives. We manage our investment portfolio using disciplined ALM principles, focusing on cash flow and duration to support our current and future liabilities. Our intent is to match the timing and amount of liability cash outflows with invested assets that have cash inflows of comparable timing and amount, while optimizing risk-adjusted net investment income and risk-adjusted total return. Our investment portfolio is heavily weighted toward fixed income investments, with over 80% of our portfolio invested in fixed maturity securities AFS and mortgage loans. These securities and loans have varying maturities and other characteristics which cause them to be generally well suited for matching the cash flow and duration of insurance liabilities. In addition, our general account investment portfolio includes, within contractholder-directed equity securities and fair value option securities (collectively, "Unit-linked and FVO Securities"), contractholder-directed equity securities supporting unit-linked variable annuity type liabilities ("Unit-linked investments"), which do not qualify as separate account assets. The returns on these Unit-linked investments, which can vary significantly from period to period, include changes in estimated fair value subsequent to purchase, inure to contractholders and are offset in earnings by a corresponding change in policyholder account balances through interest credited to policyholder account balances.

We purchase investments to support our insurance liabilities and not to generate net investment gains and losses. However, net investment gains and losses are incurred and can change significantly from period to period due to changes in external influences, including changes in market factors such as interest rates, foreign currency exchange rates, credit spreads and equity markets; counterparty specific factors such as financial performance, credit rating and collateral valuation; and internal factors such as portfolio rebalancing. Changes in these factors from period to period can significantly impact the levels of both impairments and realized gains and losses on investments sold.

We also use derivatives as an integral part of our management of the investment portfolio and insurance liabilities to hedge certain risks, including changes in interest rates, foreign currency exchange rates, credit spreads and equity market levels. We use freestanding interest rate, equity, credit and currency derivatives to hedge certain invested assets and insurance liabilities. A portion of these hedges are designated and qualify as accounting hedges, which reduce volatility in earnings. For those hedges not designated as accounting hedges, changes in market factors lead to the recognition of fair value changes in net derivative gains (losses) generally without an offsetting gain or loss recognized in earnings for the item being hedged, which creates volatility in earnings. We actively evaluate market risk hedging needs and strategies to ensure our free cash flow and capital objectives are met under a range of market conditions. For example, during 2017, we restructured certain derivative hedges to decrease volatility from nonqualified interest rate derivatives and to help meet prospective dividend and free cash flow objectives under varying interest rate scenarios. As part of this restructuring, we replaced certain nonqualified derivatives with derivatives that qualify for hedge accounting treatment. In addition, we also entered into replication transactions using interest rate swaps, which are accounted for at amortized cost under statutory guidelines and are nonqualified derivatives under GAAP.

Certain variable annuity products with guaranteed minimum benefits contain embedded derivatives that are measured at estimated fair value separately from the host variable annuity contract, with changes in estimated fair value recorded in net derivative gains (losses). We use freestanding derivatives to hedge the market risks inherent in these variable annuity guarantees. Ongoing refinement of the strategy may be required to take advantage of recently adopted NAIC rules related to a statutory accounting election for derivatives that mitigate interest rate sensitivity related to variable annuity guarantees. The restructured hedge strategy is classified as a macro hedge program, included in the non-VA program derivatives section of the table below, to protect our overall statutory capital from significant adverse economic conditions. The valuation of these embedded derivatives includes a nonperformance risk adjustment, which is unhedged, and can be a significant driver of net derivative gains (losses) and volatility in earnings, but does not have an economic impact on us.

Net Derivative Gains (Losses). The variable annuity embedded derivatives and associated freestanding derivative hedges are collectively referred to as "VA program derivatives." All other derivatives that are economic hedges of certain invested assets and insurance liabilities are referred to as "non-VA program derivatives." The table below presents the impact on net derivative gains (losses) from non-VA program derivatives and VA program derivatives:

	Years Ended December 31,	
	2018	2017
	(In millions)	
Non-VA program derivatives		
Interest rate	$ 177	$ (39)
Foreign currency exchange rate	464	(379)
Credit	(52)	198
Equity	115	6
Non-VA embedded derivatives	78	(131)
Total non-VA program derivatives	782	(345)
VA program derivatives		
Market risks in embedded derivatives	(51)	1,052
Nonperformance risk adjustment on embedded derivatives	133	(190)
Other risks in embedded derivatives	(310)	68
Total embedded derivatives	(228)	930
Freestanding derivatives hedging embedded derivatives	297	(1,175)
Total VA program derivatives	69	(245)
Net derivative gains (losses)	$ 851	$ (590)

The favorable change in net derivative gains (losses) on non-VA program derivatives was $1.1 billion ($890 million, net of income tax). This was primarily due to the U.S. dollar strengthening relative to other key currencies in 2018 versus mostly weakening in 2017, favorably impacting foreign currency swaps that primarily hedge foreign currency-denominated bonds. In addition, there was a favorable change in interest rate impact due to: (i) the impact of the 2017 restructuring of the hedge program to decrease volatility from nonqualified interest rate derivatives and to help meet prospective dividend and free cash flow objectives under varying interest rate scenarios; (ii) long-term U.S. interest rates increased in 2018 and mostly decreased in 2017, favorably impacting receive float interest rate swaps; (iii) mid-term rates increased more significantly in 2018 than 2017, positively impacting interest rate caps; and (iv) certain foreign interest rates decreased in 2018 and increased in 2017, favorably impacting receive fixed interest rate swaps indexed to those rates. Also, equity markets decreased in 2018 and increased in 2017, favorably impacting new equity options acquired primarily as part of our macro hedge program. There was also a change in the value of the underlying assets favorably impacting non-VA embedded derivatives related to funds withheld on a certain reinsurance agreement. These increases were partially offset by credit spreads widening in 2018 and narrowing in 2017, unfavorably impacting written credit default swaps used in replications. Because certain of these hedging strategies are not designated or do not qualify as accounting hedges, the changes in the estimated fair value of these freestanding derivatives are recognized in net derivative gains (losses) without an offsetting gain or loss recognized in earnings for the items being hedged.

The favorable change in net derivative gains (losses) on VA program derivatives was $314 million ($248 million, net of income tax). This was due to a favorable change of $369 million ($292 million, net of income tax) in market risks in embedded derivatives, net of the impact of freestanding derivatives hedging those risks, and a favorable change of $323 million ($255 million, net of income tax) in the nonperformance risk adjustment on embedded derivatives, partially offset by an unfavorable change of $378 million, ($299 million, net of income tax) in other risks in embedded derivatives. Other risks relate primarily to the impact of policyholder behavior and other non-market risks that generally cannot be hedged.

The aforementioned $369 million ($292 million, net of income tax) favorable change reflects a $1.5 billion ($1.2 billion, net of income tax) favorable change in freestanding derivatives hedging market risks in embedded derivatives, partially offset by a $1.1 billion ($871 million, net of income tax) unfavorable change in market risks in embedded derivatives.

The primary changes in market factors are summarized as follows:

- Key equity index levels decreased in 2018 and increased in 2017, contributing to a favorable change in our freestanding derivatives and an unfavorable change in our embedded derivatives. For example, the S&P 500 Index decreased 6% in 2018 and increased 19% in 2017.
- Long-term U.S. interest rates increased in 2018 and mostly decreased in 2017, contributing to a favorable change in our embedded derivatives. Our freestanding interest rate derivatives were favorably impacted by the restructuring of the VA hedging strategy, partially offset by the increase in interest rates. For example, the 30-year U.S. swap rate increased 30 basis points in 2018 and decreased 5 basis points in 2017.
- Changes in foreign currency exchange rates contributed to a favorable change in our freestanding derivatives and an unfavorable change in our embedded derivatives related to the assumed variable annuity guarantees from our former operating joint venture in Japan. For example, the Japanese yen strengthened against the euro by 7% in 2018 and weakened by 10% in 2017.

The aforementioned $378 million ($299 million, net of income tax) unfavorable change in other risks in embedded derivatives reflects:

- Actuarial assumption updates associated with variable annuity guarantees assumed from our former operating joint venture in Japan,
- Updates to actuarial policyholder behavior assumptions within the valuation model, and
- A combination of other factors, which include fees being deducted from accounts, changes in the benefit base, premiums, lapses, withdrawals and deaths.

The aforementioned $323 million ($255 million, net of income tax) favorable change in the nonperformance risk adjustment on embedded derivatives resulted from a favorable change of $172 million, before income tax, as a result of model changes and changes in capital market inputs, such as long-term interest rates and key equity index levels, on variable annuity guarantees, in addition to a favorable change of $151 million, before income tax, related to changes in our own credit spread.

When equity index levels decrease in isolation, the variable annuity guarantees become more valuable to policyholders, which results in an increase in the undiscounted embedded derivative liability. Discounting this unfavorable change by the risk adjusted rate yields a smaller loss than by discounting at the risk-free rate, thus creating a gain from including an adjustment for nonperformance risk.

When the risk-free interest rate decreases in isolation, discounting the embedded derivative liability produces a higher valuation of the liability than if the risk-free interest rate had remained constant. Discounting this unfavorable change by the risk adjusted rate yields a smaller loss than by discounting at the risk-free interest rate, thus creating a gain from including an adjustment for nonperformance risk.

When our own credit spread increases in isolation, discounting the embedded derivative liability produces a lower valuation of the liability than if our own credit spread had remained constant. As a result, a gain is created from including an adjustment for nonperformance risk. For each of these primary market drivers, the opposite effect occurs when they move in the opposite direction.

Net Investment Gains (Losses). The favorable change in net investment gains (losses) of $10 million ($8 million, net of income tax) primarily reflects lower non-investment portfolio losses in 2018. In 2017, we recognized a mark-to-market loss on our retained investment in Brighthouse Financial, Inc. in connection with the Separation. In 2018, we recognized lower losses representing both the change in estimated fair value of FVO Brighthouse Common Stock we held through date of disposal and the loss upon disposal in June 2018. In addition, in 2018, we recognized mark-to-market losses on equity securities which are measured at fair value through net income and in 2018 compared to 2017, there were lower gains on sales of fixed maturity securities AFS and real estate joint ventures.

Actuarial Assumption Review and Certain Other Insurance Adjustments. Results for 2018 include a $358 million ($272 million, net of income tax) charge associated with our annual review of actuarial assumptions related to reserves and DAC, of which a $131 million loss ($94 million, net of income tax) was recognized in net derivative gains (losses).

Of the $358 million charge, $20 million ($20 million, net of income tax) was related to DAC and $338 million ($252 million, net of income tax) was associated with reserves. The portion of the $358 million charge that was included in adjusted earnings was $53 million ($42 million, net of income tax).

The $131 million loss recognized in net derivative gains (losses) associated with our annual review of actuarial assumptions was included within the other risks in embedded derivatives caption in the table above.

As a result of our annual review of actuarial assumptions, changes were made to economic, biometric, policyholder behavior, and operational assumptions. The most significant impacts were in the Asia and MetLife Holdings segments related to Japan variable annuities and the projection of closed block results, respectively, and are summarized as follows:

- Economic assumption updates resulted in net favorable changes in reserves and DAC of $38 million ($29 million, net of income tax).
- Changes to biometric assumptions resulted in net favorable changes in reserves and DAC of $55 million ($44 million, net of income tax).
- Changes in policyholder behavior assumptions resulted in a net charge of $321 million ($241 million, net of income tax).
- Changes in operational assumptions, most notably related to closed block projections, resulted in a net charge of $130 million ($104 million, net of income tax).

Results for 2017 include a $37 million ($25 million, net of 2017 income tax) gain associated with our annual review of actuarial assumptions related to reserves and DAC, of which a $21 million ($14 million, net of 2017 income tax) gain was recognized in net derivative gains (losses). Of the $37 million gain, a $96 million ($64 million, net of 2017 income tax) gain was associated with DAC and a loss of $59 million ($39 million, net of 2017 income tax) was related to reserves. The portion of the $37 million gain that is included in adjusted earnings is $100 million ($66 million, net of 2017 income tax).

Certain other insurance adjustments recorded in 2018 include a $79 million ($63 million, net of income tax) charge due to a 2018 increase in our IBNR life reserves, reflecting enhancements to our processes related to potential claims in our MetLife Holdings segment, and a favorable net insurance adjustment of $47 million ($37 million, net of income tax) resulting from reserve and DAC modeling improvements in our individual disability insurance business in our U.S. segment. These adjustments were included in adjusted earnings.

Divested Businesses. Income (loss) before provision for income tax related to the divested businesses, excluding net investment gains (losses) and net derivative gains (losses), increased $936 million ($650 million, net of income tax) to a loss of $122 million ($97 million, net of income tax) in 2018 from a loss of $1.1 billion ($747 million, net of income tax) in 2017. Included in this increase was an increase in total revenues of $570 million, before income tax, and a decrease in total expenses of $366 million, before income tax. Divested businesses primarily include activity related to the Separation.

Discontinued Operations. Income (loss) from discontinued operations, net of income tax, increased $986 million for the year ended December 31, 2018 from a loss of $986 million, net of income tax, for the year ended December 31, 2017. Income (loss) from discontinued operations reflects the results of our former Brighthouse Financial segment. For further information, see Note 3 of the Notes to the Consolidated Financial Statements.

Taxes and Other Tax-Related Items. Income tax expense for the year ended December 31, 2018 was $1.2 billion, or 19% of income (loss) from continuing operations before provision for income tax, compared with an income tax benefit of $1.5 billion, or 42% of income (loss) from continuing operations before provision for income tax, for the year ended December 31, 2017. The Company's effective tax rates differ from the U.S. statutory rate of 21% typically due to non-taxable investment income, tax credits for investments in low income housing, and foreign earnings taxed at different rates than the U.S. statutory rate. Our 2018 results include the following tax items: (i) a net tax-related benefit of $366 million related to the settlement of tax audits, which includes a $349 million benefit related to the tax treatment of a wholly-owned U.K. investment subsidiary of MLIC (comprised of a $168 million tax benefit and a $181 million interest benefit), (ii) an adjusted earnings charge of $124 million related to U.S. Tax Reform (comprised of a $78 million tax charge and a $46 million, net of income tax, reduction in net investment income), (iii) a benefit of $36 million related to a non-cash transfer of assets from a wholly-owned U.K. investment subsidiary to MLIC, (iv) a charge of $69 million related to the non-deductible loss incurred on the mark-to-market and disposition of FVO Brighthouse Common Stock, (v) a charge of $17 million related to a tax adjustment in Chile, and (vi) a charge of $5 million in Colombia to establish a deferred tax liability due to a change in tax status. Our 2017 results include the following tax items: (i) a net benefit of $1.3 billion related to the impact of U.S. Tax Reform, which includes a net benefit of $1.6 billion (comprised of a $1.8 billion tax benefit and a $222 million increase in other divested expenses reflective of a reduction in other receivables due to the revaluation of a tax receivable from Brighthouse) and an adjusted earnings charge of $298 million (comprised of a $254 million tax charge and a $44 million, net of income tax, reduction in net investment income), (ii) a tax-related benefit of $540 million related to the Separation, (iii) a $41 million benefit from the finalization of certain tax audits, (iv) a net charge of $180 million as a result of the repatriation of approximately $3.0 billion of cash following the post-Separation review of our capital needs, partially offset by a benefit associated with dividends from our non-U.S. operations, and (v) a benefit of $9 million related to the settlement of a tax audit in Argentina.

*Adjusted Earnings***.** As more fully described in "— Non-GAAP and Other Financial Disclosures," we use adjusted earnings, which does not equate to income (loss) from continuing operations, net of income tax, as determined in accordance with GAAP, to analyze our performance, evaluate segment performance and allocate resources. We believe that the presentation of adjusted earnings and adjusted earnings available to common shareholders, as we measure it for management purposes, enhances the understanding of our performance by highlighting the results of operations and the underlying profitability drivers of the business. Adjusted earnings and other financial measures based on adjusted earnings allow analysis of our performance relative to our business plan and facilitate comparisons to industry results. Adjusted earnings and adjusted earnings available to common shareholders should not be viewed as substitutes for net income (loss) and net income (loss) available to MetLife, Inc.'s common shareholders, respectively. Adjusted earnings available to common shareholders increased $1.2 billion, net of income tax, to $5.5 billion, net of income tax, for the year ended December 31, 2018 from $4.2 billion, net of income tax, for the year ended December 31, 2017.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

During the year ended December 31, 2017, net income (loss) increased $3.2 billion from 2016 primarily driven by favorable changes in discontinued operations and adjusted earnings, as well as the favorable impact of U.S. Tax Reform, partially offset by an unfavorable change in net investment gains (losses).

Net Derivative Gains (Losses). The variable annuity embedded derivatives and associated freestanding derivative hedges are collectively referred to as "VA program derivatives" in the following table. All other derivatives that are economic hedges of certain invested assets and insurance liabilities are referred to as "non-VA program derivatives" in the following table. The table below presents the impact on net derivative gains (losses) from non-VA program derivatives and VA program derivatives:

	Years Ended December 31,	
	2017	2016
	(In millions)	
Non-VA program derivatives		
Interest rate	$ (39)	$ (449)
Foreign currency exchange rate	(379)	352
Credit	198	108
Equity	6	12
Non-VA embedded derivatives	(131)	26
Total non-VA program derivatives	(345)	49
VA program derivatives		
Market risks in embedded derivatives	1,052	364
Nonperformance risk adjustment on embedded derivatives	(190)	156
Other risks in embedded derivatives	68	(727)
Total embedded derivatives	930	(207)
Freestanding derivatives hedging embedded derivatives	(1,175)	(532)
Total VA program derivatives	(245)	(739)
Net derivative gains (losses)	$ (590)	$ (690)

The unfavorable change in net derivative gains (losses) on non-VA program derivatives was $394 million ($256 million, net of income tax). This was primarily due to the U.S. dollar, relative to other key currencies, weakening in 2017 versus mostly strengthening in 2016, unfavorably impacting foreign currency swaps that primarily hedge foreign currency-denominated bonds. Additionally, there was a change in the value of the underlying assets unfavorably impacting non-VA embedded derivatives related to funds withheld on a certain reinsurance agreement. These decreases were partially offset by long-term interest rates mostly decreasing in 2017 and mostly increasing in 2016, favorably impacting receive-fixed interest rate swaps and total rate of return swaps hedging long-duration liability portfolios. Because certain of these hedging strategies are not designated or do not qualify as accounting hedges, the changes in the estimated fair value of these freestanding derivatives are recognized in net derivative gains (losses) without an offsetting gain or loss recognized in earnings for the item being hedged.

The favorable change in net derivative gains (losses) on VA program derivatives was $494 million ($321 million, net of income tax). This was due to a favorable change of $795 million ($517 million, net of income tax) in other risks in embedded derivatives and a favorable change of $45 million ($29 million, net of income tax) in market risks in embedded derivatives, net of the impact of freestanding derivatives hedging those risks, partially offset by an unfavorable change of $346 million, ($225 million, net of income tax) in the nonperformance risk adjustment on embedded derivatives. Other risks relate primarily to the impact of policyholder behavior and other non-market risks that generally cannot be hedged.

The foregoing $45 million ($29 million, net of income tax) favorable change reflects a $688 million ($447 million, net of income tax) favorable change in market risks in embedded derivatives, partially offset by a $643 million ($418 million, net of income tax) unfavorable change in freestanding derivatives hedging market risks in embedded derivatives.

The primary changes in market factors are summarized as follows:

- Changes in foreign currency exchange rates contributed to an unfavorable change in our freestanding derivatives and a favorable change in our embedded derivatives related to the assumed variable annuity guarantees from our former operating joint venture in Japan. For example, the Japanese yen weakened against the euro by 10% in 2017 and strengthened by 6% in 2016.
- Key equity index levels increased more in 2017 than in 2016, contributing to an unfavorable change in our freestanding derivatives and a favorable change in our embedded derivatives. For example, the S&P 500 Index increased 19% in 2017 and increased 10% in 2016.
- Long-term interest rates in Japan increased in 2017 and decreased in 2016, contributing to a favorable change in our embedded derivatives and an unfavorable change in our freestanding derivatives related to the assumed variable annuity guarantees from our former operating joint venture in Japan. This was partially offset by long-term U.S. interest rates mostly decreasing in 2017 and mostly increasing in 2016. For example, the 30-year Japan swap rate increased five basis points in 2017 and decreased 41 basis points in 2016, and the 20-year U.S. swap rate decreased three basis points in 2017 and increased three basis points in 2016.

The foregoing $795 million ($517 million, net of income tax) favorable change in other risks in embedded derivatives reflects:

- Updates to actuarial policyholder behavior assumptions within the valuation model.
- A change in the risk margin adjustment measuring policyholder behavior risks, along with market and interest rate changes, and
- The partially offsetting impact of a combination of other factors, which include fees being deducted from accounts and changes in the benefit base, premiums, lapses, withdrawals and mortality rates.

The aforementioned $346 million ($225 million, net of income tax) unfavorable change in the nonperformance risk adjustment on embedded derivatives resulted from an unfavorable change of $209 million, before income tax, as a result of model changes and changes in capital market inputs, such as long-term interest rates and key equity index levels, on variable annuity guarantees, in addition to an unfavorable change of $137 million, before income tax, related to changes in our own credit spread.

Net Investment Gains (Losses). The unfavorable change in net investment gains (losses) of $625 million ($406 million, net of income tax) primarily reflects a 2017 loss recognized in connection with the Separation, while the 2016 results include gains from the U.S. Retail Advisor Force Divestiture and foreign currency transactions. These unfavorable changes were partially offset by higher gains on sales of real estate joint ventures and a lower provision for mortgage loan losses.

Actuarial Assumption Review. Results for 2017 include a $37 million ($25 million, net of income tax) gain associated with our annual review of actuarial assumptions related to reserves and DAC, of which a $21 million ($14 million, net of income tax) gain was recognized in net derivative gains (losses). Of the $37 million gain, a $96 million ($64 million, net of income tax) gain was associated with DAC, and a loss of $59 million ($39 million, net of income tax) was related to reserves. The $21 million gain recognized in net derivative gains (losses) associated with this review of actuarial assumptions was included within the other risks in embedded derivatives caption in the table above.

As a result of our annual review of actuarial assumptions, changes were made to economic, policyholder behavior, biometric and operational assumptions. These are summarized as follows:

- Changes in operational assumptions, most notably related to updates to maintenance expense and closed block projections, resulted in a net gain of $114 million ($74 million net of income tax).
- Changes in policyholder behavior assumptions resulted in reserve increases, partially offset by favorable DAC, resulting in a net charge of $47 million ($29 million, net of income tax).
- Economic assumption updates resulted in reserve increases and DAC releases, resulting in a charge of $19 million ($13 million net of income tax).
- Changes to biometric assumptions resulted in an increase in reserves, partially offset by favorable DAC, resulting in a charge of $11 million ($7 million, net of income tax).

The most significant impacts were in the MetLife Holdings Life and Annuities businesses.

Results for 2016 include a $648 million ($421 million, net of income tax) loss associated with our annual review of actuarial assumptions related to reserves and DAC, of which a $709 million ($461 million, net of income tax) loss was recognized in net derivative gains (losses) and a $103 million ($67 million, net of income tax) loss was recognized in updates to the closed block projection. Of the $648 million loss, a $729 million ($474 million, net of income tax) loss was related to reserves while an $81 million ($53 million, net of income tax) gain was associated with DAC.

Divested Businesses and Lag Elimination. Income (loss) before provision for income tax related to the divested businesses and lag elimination, excluding net investment gains (losses) and net derivative gains (losses), decreased $861 million ($618 million, net of income tax) to a loss of $1.1 billion ($747 million, net of income tax) in 2017 from a loss of $197 million ($129 million, net of income tax) in 2016. Included in this decline was a decrease in total revenues of $272 million, before income tax, and an increase in total expenses of $589 million, before income tax. Divested businesses include activity primarily related to the Separation. In addition, divested businesses for 2016 also include the financial impact of converting our Japan operations to calendar year-end reporting.

Discontinued Operations. Loss from discontinued operations, net of income tax, decreased $1.7 billion for the year ended December 31, 2017 to a loss of $986 million, net of income tax, from a loss of $2.7 billion, net of income tax, for the year ended December 31, 2016. Income (loss) from discontinued operations reflects the results of our former Brighthouse Financial segment. The favorable change in income (loss) from discontinued operations was primarily due to a favorable change in net derivative gains (losses) of $3.1 billion, net of income tax, primarily driven by the impact of the 2016 annual actuarial assumption review on certain variable annuity products that contain embedded derivatives, partially offset by a loss of $1.2 billion, net of income tax, as a result of the Separation in 2017. For further information regarding the Separation, see Note 3 of the Notes to the Consolidated Financial Statements.

Taxes. Income tax benefit for the year ended December 31, 2017 was $1.5 billion, or 42% of income from continuing operations before provision for income tax, compared with income tax expense of $693 million, or 16% of income before provision for income tax, for the year ended December 31, 2016. Our effective tax rates differ from the U.S. statutory rate of 35% due to non-taxable investment income, tax credits for low income housing, and foreign earnings taxed at lower rates than the U.S. statutory rate. Our 2017 results include the following tax items: (i) a net benefit of $1.3 billion related to the impact of U.S. Tax Reform, which includes a net benefit of $1.6 billion (comprised of a $1.8 billion tax benefit and a $222 million increase in other divested expenses reflective of a reduction in other receivables due to the revaluation of a tax receivable from Brighthouse) and an adjusted earnings charge of $298 million (comprised of a $254 million tax charge and a $44 million, net of income tax, reduction in net investment income), (ii) a tax-related benefit of $540 million related to the Separation, (iii) a $41 million tax benefit from the finalization of certain tax audits, (iv) a net tax charge of $180 million as a result of the repatriation of approximately $3.0 billion of cash following the post-Separation review of our capital needs, partially offset by a tax benefit associated with dividends from our non-U.S. operations, and (v) a tax benefit of $9 million related to the settlement of an audit in Argentina. Our 2016 results include a tax benefit of $110 million in Japan related to a change in tax rate, a tax charge of $26 million related to the repatriation of earnings from Japan and a tax charge of $19 million in Chile, related to a change in tax rate. In addition, 2016 results include a one-time tax benefit of $46 million for the finalization of certain tax audits.

Adjusted Earnings. Adjusted earnings available to common shareholders increased $202 million, net of income tax, to $4.2 billion, net of income tax, for the year ended December 31, 2017 from $4.0 billion, net of income tax, for the year ended December 31, 2016.

Reconciliation of income (loss) from continuing operations, net of income tax, to adjusted earnings available to common shareholders

Year Ended December 31, 2018

	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Net income (loss)	$ 2,755	$ 1,547	$ 477	$ 296	$ 1,016	$ (963)	$ 5,128
Less: Income (loss) from discontinued operations, net of income tax	—	—	—	—	—	—	—
Income (loss) from continuing operations, net of income tax	$ 2,755	$ 1,547	$ 477	$ 296	$ 1,016	$ (963)	$ 5,128
Less: Net investment gains (losses)	(72)	142	18	5	(164)	(227)	(298)
Less: Net derivative gains (losses)	268	312	(64)	28	263	44	851
Less: Other adjustments to continuing operations (1)	(259)	(29)	(94)	(21)	(401)	(137)	(941)
Less: Provision for income tax (expense) benefit	14	(115)	25	7	63	(80)	(86)
Adjusted earnings	$ 2,804	$ 1,237	$ 592	$ 277	$ 1,255	(563)	5,602
Less: Preferred stock dividends						141	141
Adjusted earnings available to common shareholders						$ (704)	$ 5,461

Year Ended December 31, 2017

	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Net income (loss)	$ 2,001	$ 1,298	$ 613	$ 301	$ 914	$ (1,107)	$ 4,020
Less: Income (loss) from discontinued operations, net of income tax	—	—	—	—	—	(986)	(986)
Income (loss) from continuing operations, net of income tax	$ 2,001	$ 1,298	$ 613	$ 301	$ 914	$ (121)	$ 5,006
Less: Net investment gains (losses)	180	128	(47)	(10)	71	(630)	(308)
Less: Net derivative gains (losses)	(21)	31	108	32	(339)	(401)	(590)
Less: Other adjustments to continuing operations (1)	(197)	(43)	8	17	(337)	(1,070)	(1,622)
Less: Provision for income tax (expense) benefit	12	(47)	(41)	(35)	337	2,962	3,188
Adjusted earnings	$ 2,027	$ 1,229	$ 585	$ 297	$ 1,182	(982)	4,338
Less: Preferred stock dividends						103	103
Adjusted earnings available to common shareholders						$ (1,085)	$ 4,235
Adjusted earnings available to common shareholders on a constant currency basis	$ 2,027	$ 1,235	$ 572	$ 297	$ 1,182	$ (1,085)	$ 4,228

Year Ended December 31, 2016

	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Net income (loss)	$ 1,756	$ 1,420	$ 629	$ 311	$ 300	$ (3,562)	$ 854
Less: Income (loss) from discontinued operations, net of income tax	—	—	—	—	—	(2,734)	(2,734)
Income (loss) from continuing operations, net of income tax	$ 1,756	$ 1,420	$ 629	$ 311	$ 300	$ (828)	$ 3,588
Less: Net investment gains (losses)	(15)	230	93	42	182	(215)	317
Less: Net derivative gains (losses)	53	(47)	3	24	(757)	34	(690)
Less: Other adjustments to continuing operations (1)	(263)	26	58	33	(50)	(285)	(481)
Less: Provision for income tax (expense) benefit	85	(13)	(68)	(61)	219	144	306
Adjusted earnings	$ 1,896	$ 1,224	$ 543	$ 273	$ 706	(506)	4,136
Less: Preferred stock dividends						103	103
Adjusted earnings available to common shareholders						$ (609)	$ 4,033
Adjusted earnings available to common shareholders on a constant currency basis	$ 1,896	$ 1,216	$ 541	$ 261	$ 706	$ (609)	$ 4,011

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(1) See definitions and components of adjusted revenues and adjusted expenses under "— Non-GAAP and Other Financial Disclosures." Further, see "— Reconciliation of revenues to adjusted revenues and expenses to adjusted expenses" for additional details on these adjustments by financial statement line item.

Reconciliation of revenues to adjusted revenues and expenses to adjusted expenses

Year Ended December 31, 2018

	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Total revenues	$ 36,959	$ 11,969	$ 5,000	$ 2,491	$ 10,762	$ 760	$ 67,941
Less: Adjustments from total revenues to adjusted revenues, in the line items indicated:							
Net investment gains (losses)	(72)	142	18	5	(164)	(227)	(298)
Net derivative gains (losses)	268	312	(64)	28	263	44	851
Premiums	—	—	—	—	—	—	—
Universal life and investment-type product policy fees	—	(6)	7	25	94	—	120
Net investment income	(274)	(262)	(45)	(488)	(157)	9	(1,217)
Other revenues	—	19	—	—	—	305	324
Total adjusted revenues	$ 37,037	$ 11,764	$ 5,084	$ 2,921	$ 10,726	$ 629	$ 68,161
Total expenses	$ 33,482	$ 9,759	$ 4,310	$ 2,114	$ 9,501	$ 2,468	$ 61,634
Less: Adjustments from total expenses to adjusted expenses, in the line items indicated:							
Policyholder benefits and claims and policyholder dividends	(11)	(3)	40	31	117	—	174
Interest credited to policyholder account balances	(4)	(218)	21	(479)	—	—	(680)
Capitalization of DAC	—	—	(1)	—	—	—	(1)
Amortization of DAC and VOBA	—	(5)	—	(1)	221	—	215
Amortization of negative VOBA	—	(1)	—	—	—	—	(1)
Interest expense on debt	—	—	—	—	—	63	63
Other expenses	—	7	(4)	7	—	388	398
Total adjusted expenses	$ 33,497	$ 9,979	$ 4,254	$ 2,556	$ 9,163	$ 2,017	$ 61,466

Year Ended December 31, 2017

	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Total revenues	$ 31,810	$ 11,875	$ 5,118	$ 3,729	$ 11,005	$ (1,229)	$ 62,308
Less: Adjustments from total revenues to adjusted revenues, in the line items indicated:							
Net investment gains (losses)	180	128	(47)	(10)	71	(630)	(308)
Net derivative gains (losses)	(21)	31	108	32	(339)	(401)	(590)
Premiums	—	—	—	—	—	(347)	(347)
Universal life and investment-type product policy fees	—	13	—	26	98	(34)	103
Net investment income	(195)	314	69	848	(181)	(36)	819
Other revenues	—	22	—	—	—	(135)	(113)
Total adjusted revenues	$ 31,846	$ 11,367	$ 4,988	$ 2,833	$ 11,356	$ 354	$ 62,744
Total expenses	$ 28,797	$ 9,910	$ 4,308	$ 3,334	$ 9,881	$ 2,542	$ 58,772
Less: Adjustments from total expenses to adjusted expenses, in the line items indicated:							
Policyholder benefits and claims and policyholder dividends	5	20	(36)	28	322	(135)	204
Interest credited to policyholder account balances	(3)	345	105	814	—	33	1,294
Capitalization of DAC	—	—	—	—	—	34	34
Amortization of DAC and VOBA	—	9	—	(1)	(68)	93	33
Amortization of negative VOBA	—	(9)	—	—	—	—	(9)
Interest expense on debt	—	—	—	—	—	(16)	(16)
Other expenses	—	27	(8)	16	—	509	544
Total adjusted expenses	$ 28,795	$ 9,518	$ 4,247	$ 2,477	$ 9,627	$ 2,024	$ 56,688

Year Ended December 31, 2016

	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Total revenues	$ 29,254	$ 11,973	$ 4,816	$ 3,810	$ 11,710	$ (776)	$ 60,787
Less: Adjustments from total revenues to adjusted revenues, in the line items indicated:							
Net investment gains (losses)	(15)	230	93	42	182	(215)	317
Net derivative gains (losses)	53	(47)	3	24	(757)	34	(690)
Premiums	—	426	—	—	—	(729)	(303)
Universal life and investment-type product policy fees	—	98	—	24	92	(62)	152
Net investment income	(264)	100	48	911	(274)	(168)	353
Other revenues	—	8	—	—	—	34	42
Total adjusted revenues	$ 29,480	$ 11,158	$ 4,672	$ 2,809	$ 12,467	$ 330	$ 60,916
Total expenses	$ 26,607	$ 10,061	$ 3,961	$ 3,396	$ 11,337	$ 1,144	$ 56,506
Less: Adjustments from total expenses to adjusted expenses, in the line items indicated:							
Policyholder benefits and claims and policyholder dividends	2	347	(86)	11	166	(735)	(295)
Interest credited to policyholder account balances	(3)	70	85	878	—	58	1,088
Capitalization of DAC	—	(105)	—	—	—	104	(1)
Amortization of DAC and VOBA	—	114	—	—	(312)	(127)	(325)
Amortization of negative VOBA	—	(47)	—	—	—	—	(47)
Interest expense on debt	—	—	—	—	—	(50)	(50)
Other expenses	—	227	(9)	13	14	110	355
Total adjusted expenses	$ 26,608	$ 9,455	$ 3,971	$ 2,494	$ 11,469	$ 1,784	$ 55,781

Consolidated Results — Adjusted Earnings

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Unless otherwise stated, all amounts discussed below are net of income tax.

Overview. The primary drivers of the increase in adjusted earnings were higher net investment income due to a larger asset base and higher investment yields, the favorable impact of U.S. Tax Reform, other favorable tax items, favorable refinements to DAC and certain insurance-related liabilities, lower expenses and favorable underwriting, partially offset by higher interest credited expenses and the net unfavorable change from our annual actuarial assumption review.

Foreign Currency. Changes in foreign currency exchange rates had a $7 million negative impact on adjusted earnings for 2018 compared to 2017. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

U.S. Tax Reform. The changes from U.S. Tax Reform resulted in a net increase in adjusted earnings of $477 million for 2018 compared to 2017, which includes a slight reduction in net investment income related to tax credit partnership investments. Our 2018 results include a tax benefit of $303 million, primarily related to the lower tax rate. Our 2017 results include a tax charge of $254 million to reflect the enactment of U.S. Tax Reform. Our 2018 results also include an additional tax charge of $78 million to reflect a revision to the estimate of this enactment.

Business Growth. We benefited from positive net flows from many of our businesses, which increased our invested asset base. Growth in the investment portfolios of our U.S., Asia, and Latin America segments resulted in higher net investment income. However, this was partially offset by a corresponding increase in interest credited expenses on certain insurance-related liabilities. In our U.S. segment, an increase in average premium per policy in our auto business, partially offset by a decrease in exposures, improved adjusted earnings. Business growth also drove an increase in commissions and other variable expenses, which were partially offset by higher DAC capitalization. The combined impact of the items affecting our business growth resulted in a $153 million increase in adjusted earnings.

Market Factors. Market factors, including interest rate levels, variability in equity market returns, and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Excluding the impact of changes in foreign currency exchange rates on net investment income in our non-U.S. segments and changes in inflation rates on our inflation-indexed investments, investment yields increased. Investment yields were positively affected by higher yields on fixed income securities and mortgage loans, income on derivatives, returns on real estate investments and a reduction in investment expenses. These increases were partially offset by lower returns on private equities, driven by a decrease in partnership distributions, lower returns on hedge funds and lower returns on fair value option securities ("FVO Securities"). The improvement in yields was more than offset by the impact of higher average interest credited rates, which drove an increase in interest credited expenses, primarily in our U.S. segment. The changes in market factors discussed above resulted in a $79 million decrease in adjusted earnings.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Favorable underwriting resulted in a $74 million increase in adjusted earnings primarily as a result of lower catastrophe losses, as well as favorable morbidity in our U.S. and MetLife Holdings segments, partially offset by unfavorable claims experience in our EMEA and Asia segments, as well as higher non-catastrophe losses in our Property & Casualty business. In addition, favorable mortality in our Latin America and U.S. segments was partially offset by unfavorable mortality in our MetLife Holdings segment. Our annual actuarial assumption review resulted in a decrease of $121 million in adjusted earnings when compared to 2017, primarily due to less favorable assumption changes in our MetLife Holdings and Asia segments. Refinements to DAC and certain insurance-related liabilities, which were recorded in both 2018 and 2017 across all of our segments, resulted in a $103 million increase in adjusted earnings, most notably in our U.S. segment.

Expenses. Our unit cost initiative improved expense margins and contributed to a $101 million decrease in expenses from lower (i) Separation-related expenses, (ii) employee-related costs, including expenses related to pension and postretirement benefits, and (iii) expenses for interest on certain tax positions, as well as expenses incurred in 2017 related to the guaranty fund assessment for Penn Treaty. These decreases were partially offset by higher expenses in 2018 associated with enterprise-wide initiatives, including the continued investment in our unit cost initiative.

Taxes and Other Tax-Related Items. Our effective tax rates differ from the U.S. statutory rate of 21% typically due to nontaxable investment income, tax credits for investments in low income housing and foreign earnings taxed at different rates than the U.S. statutory rate. This incremental tax benefit was lower in 2018 compared to 2017 which resulted in a $47 million decrease in adjusted earnings. Our results for 2018 include the following tax items: (i) a net tax-related benefit of $366 million related to the settlement of tax audits, which included a $349 million benefit related to the tax treatment of a wholly-owned U.K. investment subsidiary of MLIC (comprised of a $168 million tax benefit and a $181 million interest benefit), (ii) a benefit of $36 million related to a non-cash transfer of assets from a wholly-owned U.K. investment subsidiary to MLIC, (iii) a charge of $17 million related to a tax adjustment in Chile, and (iv) a $5 million charge in Colombia to establish a deferred tax liability due to a change in tax status. Our results for 2017 include the following tax items: (i) a benefit of $41 million related to the finalization of certain tax audits, (ii) charges of $180 million related to the repatriation of approximately $3.0 billion of cash following the post-Separation review of our capital needs, partially offset by a tax benefit associated with dividends from our non-U.S. operations, and (iii) a benefit of $9 million related to the settlement of a tax audit in Argentina. Other tax-related items in both 2018 and 2017, primarily due to the changes in the valuation of the peso in Argentina, resulted in a $45 million increase in adjusted earnings.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

Unless otherwise stated, all amounts discussed below are net of income tax.

Overview. The primary drivers of the increase in adjusted earnings were annuities reinsurance activity with Brighthouse, the impact of 2017 and 2016 refinements made to DAC and certain insurance-related liabilities, and the impact in both 2017 and 2016 of our annual actuarial assumption review, partially offset by the negative impact of U.S. Tax Reform and other unfavorable tax items.

Foreign Currency. Changes in foreign currency exchange rates had a $22 million negative impact on adjusted earnings for 2017 compared to 2016. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

Business Growth. An increase of $70 million in adjusted earnings was attributable to business growth. We benefited from positive net flows from many of our businesses. As a result, growth in the investment portfolios of our U.S., Asia and Latin America segments generated higher net investment income. However, this was partially offset by a corresponding increase in interest credited expense on certain insurance-related liabilities. In our U.S. segment, an increase in average premium per policy in our auto and homeowners business, partially offset by a decrease in exposures, improved adjusted earnings. Growth in our segments abroad also contributed to the increase in adjusted earnings. In our MetLife Holdings segment, negative net flows contributed to a decrease in average separate account balances and, consequently, asset-based fee income. Improved results from our start-up operations increased adjusted earnings.

Market Factors. Market factors, including interest rate levels, variability in equity market returns, and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Excluding the impact of changes in foreign currency exchange rates on reported net investment income in our non-U.S. segments and changes in inflation rates on our inflation-indexed investments, investment yields decreased. Investment yields were negatively affected by lower prepayment fees, lower derivative income and lower returns on real estate joint ventures. In addition, earnings on our securities lending program decreased, which primarily resulted from lower margins due to a flatter yield curve, and lower returns on alternative investments (excluding the impact of U.S. Tax Reform). These decreases in net investment income were partially offset by higher returns on other limited partnership interests, driven by improvements in equity market performance. In addition, higher interest credited expenses, primarily driven by our U.S. segment as a result of a higher average interest credited rate, reduced adjusted earnings. These decreases were partially offset by higher asset-based fees in our MetLife Holdings segment as a result of favorable equity market performance in 2017. The changes in market factors discussed above resulted in a $69 million decrease in adjusted earnings.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Unfavorable underwriting resulted in a $13 million decrease in adjusted earnings primarily as a result of unfavorable claims experience, higher catastrophe losses and unfavorable mortality, largely offset by favorable morbidity and favorable development of prior year non-catastrophe losses in our Property & Casualty business. Favorable morbidity in our U.S. segment was partially offset by unfavorable morbidity in our MetLife Holdings segment. Higher lapses and claims in Japan, partially offset by favorable claims experience in other countries, drove unfavorable claims experience in our Asia segment. Unfavorable mortality in our Latin America and U.S. segments was partially offset by favorable mortality in our MetLife Holdings segment. The impact in both 2017 and 2016 of our annual actuarial assumption review resulted in a $166 million increase in adjusted earnings, primarily due to favorable DAC unlockings in 2017 compared to unfavorable DAC unlockings in 2016 in our MetLife Holdings segment. Refinements to DAC and certain insurance-related liabilities, which were recorded in both 2017 and 2016 across our segments, resulted in a $191 million increase in adjusted earnings. This includes favorable 2017 refinements of (i) a $36 million DAC adjustment related to certain participating whole life business assumed from Brighthouse; and (ii) a reserve adjustment resulting from modeling improvements in the reserving process of $55 million in our life business, as well as (iii) a 2017 unfavorable charge of $90 million to increase certain RIS policy reserves. This also includes an unfavorable 2016 refinement of $65 million resulting from modeling improvements in the reserving process.

Expenses. A $46 million decrease in expenses was primarily driven by lower costs as a result of the U.S. Retail Advisor Force Divestiture, a decrease in certain corporate expenses, and favorable net adjustments to certain reinsurance assets and liabilities, partially offset by (i) Separation-related costs, (ii) higher employee-related expenses, (iii) higher costs associated with corporate initiatives and projects (including leasehold impairments and costs related to our unit cost initiative), (iv) an increase in asbestos and litigation reserves, and (v) an increase in expenses incurred related to the guaranty fund assessment for Penn Treaty.

Interest Expense on Debt. Interest expense on debt decreased by $35 million, mainly due to the maturity of $1.25 billion of our senior notes in June 2016.

Taxes. Our effective tax rates differ from the U.S. statutory rate of 35% due to non-taxable investment income, tax credits for investments in low income housing, and foreign earnings taxed at lower rates than the U.S. statutory rate. This incremental tax benefit was lower in 2017 compared to 2016 which resulted in a $7 million decrease in adjusted earnings. Our results for 2017 include the following tax items: (i) a charge of $298 million related to the impact of U.S. Tax Reform, which includes a $254 million tax charge and a $44 million, net of income tax, reduction in net investment income, (ii) a tax benefit of $41 million related to the finalization of certain tax audits, (iii) tax charges of $180 million related to the repatriation of offshore earnings, and (iv) a tax benefit of $9 million related to the settlement of an audit in Argentina. Our results for 2016 include the following tax items: (i) a tax benefit of $25 million in Japan and a tax charge of $12 million in Chile, both related to changes in tax rates that pertain to periods prior to 2016, (ii) a tax charge of $26 million related to the repatriation of earnings from Japan, and (iii) a tax benefit of $46 million for the finalization of certain tax audits.

Other: In connection with the Separation, annuities reinsurance activity with Brighthouse increased adjusted earnings by $267 million. This favorable impact was primarily due to the recapture in 2016 of certain assumed single-premium deferred annuity reinsurance agreements, and the elimination of interest credited payments on the related reinsurance payable, as well as lower DAC amortization. This increase was partially offset by the net unfavorable impact in 2017 from the recapture and novation of, as well as refinements to, assumed and ceded agreements covering certain variable annuity business.

Segment Results and Corporate & Other

U.S.

Business Overview. Sales increased compared to 2017, primarily driven by our RIS business, as higher sales of pension risk transfers (driven by a large transaction in the second quarter of 2018), stable value, specialized life insurance and structured settlement products were partially offset by lower funding agreement issuances. Changes in premiums for the RIS business were almost entirely offset by the related changes in policyholder benefits and claims. Sales were slightly lower compared to 2017 in the Group Benefits business, as strong sales in our voluntary products were offset by the impact of strong jumbo case sales in our core products in 2017. The resulting increase in premiums, fees and other revenues was partially offset by the loss of a large dental contract in the second quarter of 2017. In our Property & Casualty business, sales increased over 2017. In addition, the number of exposures decreased from 2017, reflecting management actions to improve the quality of the business.

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Adjusted revenues			
Premiums	$ 28,186	$ 23,632	$ 21,501
Universal life and investment-type product policy fees	1,053	1,012	989
Net investment income	6,977	6,396	6,206
Other revenues	821	806	784
Total adjusted revenues	37,037	31,846	29,480
Adjusted expenses			
Policyholder benefits and claims and policyholder dividends	27,765	23,627	21,591
Interest credited to policyholder account balances	1,790	1,474	1,302
Capitalization of DAC	(449)	(458)	(471)
Amortization of DAC and VOBA	477	459	471
Interest expense on debt	12	11	9
Other expenses	3,902	3,682	3,706
Total adjusted expenses	33,497	28,795	26,608
Provision for income tax expense (benefit)	736	1,024	976
Adjusted earnings	$ 2,804	$ 2,027	$ 1,896

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Unless otherwise stated, all amounts discussed below are net of income tax.

U.S. Tax Reform. The changes from U.S. Tax Reform resulted in an increase in adjusted earnings of $417 million for 2018 compared to 2017.

Business Growth. Net investment income improved as a result of higher average invested assets due to the impact of increased premiums and deposits, primarily due to pension risk transfer sales, partially offset by a decrease in net flows from funding agreements. However, consistent with the growth in average invested assets from increased premiums, interest credited expenses on long-duration and deposit-type liabilities increased. An increase in average premium per policy in our auto business, partially offset by the decrease in exposures, improved adjusted earnings. Higher volume-related, direct and premium tax expenses were partially offset by lower pension and postretirement expenses. This net increase in expenses, coupled with the increase due to the 2018 reinstatement of the annual health insurer fee under the PPACA, were more than offset by a corresponding increase in premiums, fees and other revenues. The combined impact of the items affecting our business growth increased adjusted earnings by $171 million.

Market Factors. Market factors, including interest rate levels, variability in equity market returns and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Investment yields increased, primarily due to higher yields on fixed income securities and mortgage loans, coupled with higher returns on real estate investments, partially offset by lower returns on private equities, as a result of a decrease in partnership distributions. The net increase in investment yields was more than offset by the impact of higher average interest credited rates on both our long-duration and deposit-type liabilities, which drove an increase in interest credited expenses. The changes in market factors discussed above resulted in an $86 million decrease in adjusted earnings.

Underwriting and Other Insurance Adjustments. In our Property & Casualty business, catastrophe-related losses decreased $88 million as compared to 2017. Losses from our commercial business increased $26 million. Non-catastrophe claim costs increased $21 million, as a result of higher auto and homeowner severities, as well as an increase in auto frequencies, partially offset by lower homeowner frequencies. As a result of overall lower claim activity, loss adjustment expenses decreased, increasing adjusted earnings by $15 million. In addition, less favorable development of prior period losses decreased adjusted earnings by $8 million. Favorable claims experience in our Group Benefits business resulted in a $47 million increase in adjusted earnings. This was primarily driven by favorable renewal results in our group disability business, as well as lower claim incidence and severity, coupled with growth and favorable claims experience in our accident & health business, partially offset by less favorable claims experience in our dental, vision and individual disability businesses. Mortality results were flat as less favorable claim experience in our term life business was offset by favorable mortality in our universal life and accidental death & dismemberment businesses. Favorable mortality in our specialized life insurance, pension risk transfer and structured settlement businesses increased adjusted earnings by $57 million. Refinements to certain insurance and other liabilities, which were recorded in both 2018 and 2017, resulted in a $131 million increase in adjusted earnings. Such refinements include favorable insurance adjustments resulting from reserve and DAC modeling improvements in our individual disability insurance business in 2018 and a charge in 2017 to increase certain RIS policy reserves.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

Unless otherwise stated, all amounts discussed below are net of income tax.

Business Growth. The impact of deposits, net flows from funding agreements and increased premiums in 2017 resulted in higher average invested assets, improving net investment income. However, consistent with the growth in average invested assets from increased premiums, interest credited on long-duration contracts increased. An increase in average premium per policy in both our auto and homeowners businesses, partially offset by the decrease in exposures, improved adjusted earnings. The remaining increase in premiums, fees and other revenues, coupled with a decline in direct expenses, was partially offset by higher volume-related expenses. The 2017 abatement of the annual health insurer fee under PPACA was offset by a corresponding decrease in premiums, fees and other revenues. The combined impact of the items discussed above increased adjusted earnings by $198 million.

Market Factors. Market factors, including interest rate levels, variability in equity market returns and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Investment yields decreased, primarily due to lower prepayment fees, derivative income and lower returns on real estate and real estate joint ventures. In addition, lower investment earnings on our securities lending program resulted primarily from lower margins, due to a flatter yield curve. These decreases in investment yields were largely offset by higher returns on other limited partnership interests, primarily in private equities, driven by improvements in equity market performance. Higher average interest credited rates drove an increase in interest credited expenses; however, this was partially offset by an increase in adjusted earnings due to a decrease in the crediting rate on certain long-duration insurance contracts. The changes in market factors discussed above resulted in a $74 million decrease in adjusted earnings.

Underwriting and Other Insurance Adjustments. Favorable prior year reserve development, lower utilization and the positive impact of pricing actions in our dental business, as well as favorable claims experience in our accident & health and group disability businesses were partially offset by slightly less favorable claims experience in our individual disability business, which resulted in a $120 million increase in adjusted earnings. Less favorable mortality in 2017, mainly due to less favorable claim experience in our group life businesses resulted in a $20 million decrease in adjusted earnings. Favorable mortality from our pension risk transfer and structured settlement businesses was mostly offset by less favorable mortality in our specialized life insurance and income annuities businesses. In our Property & Casualty business, catastrophe-related losses increased $24 million in 2017, primarily due to severe storm activity. Non-catastrophe claim costs increased slightly as a result of higher auto-related severities and higher homeowners-related frequencies, mostly offset by lower auto-related frequencies and lower homeowners-related severities. Favorable development of prior year non-catastrophe losses of $12 million increased adjusted earnings. Refinements to certain insurance and other liabilities, which were recorded in both 2017 and 2016, resulted in a $75 million decrease in adjusted earnings, which included a $90 million charge in 2017 to increase certain RIS policy reserves.

Asia

Business Overview. Sales increased compared to 2017 primarily driven by growth in foreign currency-denominated annuity and life products as well as accident & health product sales in Japan. This was partially offset by a decrease in sales in Korea, as a result of the continued negative impact of regulatory changes on sales of savings retirement products, as well as a decrease in life sales in Hong Kong.

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Adjusted revenues			
Premiums	$ 6,766	$ 6,755	$ 6,902
Universal life and investment-type product policy fees	1,630	1,584	1,488
Net investment income	3,317	2,985	2,707
Other revenues	51	43	61
Total adjusted revenues	11,764	11,367	11,158
Adjusted expenses			
Policyholder benefits and claims and policyholder dividends	5,326	5,075	5,211
Interest credited to policyholder account balances	1,465	1,351	1,298
Capitalization of DAC	(1,915)	(1,710)	(1,668)
Amortization of DAC and VOBA	1,302	1,300	1,236
Amortization of negative VOBA	(39)	(111)	(208)
Other expenses	3,840	3,613	3,586
Total adjusted expenses	9,979	9,518	9,455
Provision for income tax expense (benefit)	548	620	479
Adjusted earnings	$ 1,237	$ 1,229	$ 1,224

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. Changes in foreign currency exchange rates increased adjusted earnings by $6 million for 2018 compared to 2017, primarily due to the strengthening of the Korean won against the U.S. dollar. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

U.S. Tax Reform. The changes from U.S. Tax Reform resulted in an increase in adjusted earnings of $47 million for 2018 compared to 2017.

Business Growth. Asia's premiums, fees and other revenues remained flat compared to 2017 as growth in our foreign currency-denominated life and accident & health products was offset by the decline in yen-denominated life products in Japan. Changes in premiums from these products were partially offset by related changes in policyholder benefits. Positive net flows in Japan and Korea resulted in higher average invested assets, which improved net investment income. Business growth also drove an increase in commissions and other variable expenses, which were partially offset by higher DAC capitalization. The combined impact of the items affecting our business growth improved adjusted earnings by $109 million.

Market Factors. Market factors, including interest rate levels and variability in equity market returns, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Investment results were favorably impacted by higher returns on real estate investments, derivative income, and yields on mortgage loans. In addition, higher earnings from our operating joint venture in China improved net investment income. An increase in higher-yielding fixed income securities supporting U.S. dollar-denominated products sold in Japan was partially offset by lower yields on fixed income securities in Korea. Investment yields were negatively impacted by increased investment expenses and lower returns on hedge funds. The net increase in investment yields was partially offset by an increase in interest credited expenses on certain insurance liabilities. The combined impact of the items discussed above increased adjusted earnings by $7 million.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Higher lapses and claims in Japan decreased adjusted earnings by $48 million. Our annual actuarial assumption review resulted in a decrease of $63 million in adjusted earnings when compared to 2017. Refinements to certain insurance and other liabilities, which were recorded in both 2018 and 2017, resulted in a $31 million decrease in adjusted earnings. Our results for 2018 include favorable liability refinements of $11 million in Japan and $6 million in Australia, largely offset by an unfavorable liability refinement of $16 million in Bangladesh. Our 2017 results include a favorable refinement of $12 million related to reinsurance receivables in Australia.

Expenses and Taxes. Higher expenses, primarily driven by higher employee-related and project costs, as well as an increase in corporate overhead costs, reduced adjusted earnings by $24 million. Various tax items in both 2018 and 2017 resulted in a $5 million increase in adjusted earnings.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. Changes in foreign currency exchange rates decreased adjusted earnings by $8 million for 2017 compared to 2016 primarily due to the weakening of the Japanese yen, partially offset by the strengthening of the Korean won, against the U.S. dollar. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

Business Growth. Asia's premiums and policy fee income increased from 2016 mainly driven by growth in our foreign currency-denominated life and accident & health businesses in Japan, as well as our group insurance business in Australia. Changes in premiums for these businesses were partially offset by related changes in policyholder benefits. Positive net flows in Japan and Korea resulted in higher average invested assets, which improved net investment income. The combined impact of the items discussed above improved adjusted earnings by $61 million.

Market Factors. Market factors, including interest rate levels and variability in equity market returns continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Investment results were favorably impacted by higher returns on other limited partnership interests, driven by improvements in equity market performance, and higher income on real estate investments, which included a lease termination fee. These increases were partially offset by the unfavorable impact of lower interest rates on fixed maturity securities AFS in Japan. The decrease in returns from lower interest rates in Japan was partially offset by the favorable impact of increased sales of foreign currency-denominated fixed annuities in Japan, primarily in its Australian dollar-denominated portfolio, which drove an increase in higher yielding foreign currency-denominated fixed maturity securities AFS. The combined impact of the items discussed above increased adjusted earnings by $45 million.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Higher lapses and claims in Japan, partially offset by favorable claims experience in other countries, decreased adjusted earnings by $51 million. The impact in both 2017 and 2016 of our annual actuarial assumption review resulted in a slight increase in adjusted earnings. Refinements to certain insurance and other liabilities, which were recorded in both 2017 and 2016, resulted in a $69 million increase in adjusted earnings, which includes a $12 million favorable refinement in 2017 of the $44 million charge in 2016 related to reinsurance receivables in Australia.

Expenses and Taxes. Higher expenses, primarily driven by project costs, reduced adjusted earnings by $11 million. Results for 2017 include a charge of $70 million related to a U.S. tax on dividends from our Japan operations. Results for 2016 include a $25 million tax benefit related to a change in the corporate tax rate in Japan (which includes a benefit of $20 million that pertains to prior periods).

Latin America

Business Overview. Total sales for Latin America increased compared to 2017, driven by higher individual accident & health, credit life and retirement product sales in Chile, partially offset by lower pension and group medical sales in Mexico.

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Adjusted revenues			
Premiums	$ 2,760	$ 2,693	$ 2,529
Universal life and investment-type product policy fees	1,050	1,044	1,025
Net investment income	1,239	1,219	1,084
Other revenues	35	32	34
Total adjusted revenues	5,084	4,988	4,672
Adjusted expenses			
Policyholder benefits and claims and policyholder dividends	2,602	2,535	2,443
Interest credited to policyholder account balances	394	369	328
Capitalization of DAC	(377)	(364)	(321)
Amortization of DAC and VOBA	209	224	184
Amortization of negative VOBA	(1)	(1)	(1)
Interest expense on debt	6	5	2
Other expenses	1,421	1,479	1,336
Total adjusted expenses	4,254	4,247	3,971
Provision for income tax expense (benefit)	238	156	158
Adjusted earnings	$ 592	$ 585	$ 543

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. Changes in foreign currency exchange rates decreased adjusted earnings by $13 million for 2018 compared to 2017 mainly due to the weakening of the Mexican and Argentine pesos against the U.S. dollar. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

U.S. Tax Reform. The changes from U.S. Tax Reform resulted in a decrease in adjusted earnings of $40 million for 2018 compared to 2017.

Business Growth. Latin America experienced growth across several lines of business primarily within Chile and Mexico. This growth resulted in increased premiums and policy fee income, which was largely offset by related changes in policyholder benefits. Positive net flows, primarily from Chile and Argentina, resulted in an increase in average invested assets and generated higher net investment income. This was partially offset by an increase in interest credited expenses on certain insurance liabilities. Business growth also drove an increase in commissions, which was partially offset by higher DAC capitalization. The combined impact of the items affecting our business growth increased adjusted earnings by $10 million.

Market Factors. Market factors, including interest rate levels and variability in equity market returns, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Changes in market factors resulted in an $8 million decrease in adjusted earnings despite higher investment yields. This was primarily due to lower returns on FVO Securities in Chile and higher interest credited expenses, partially offset by improved yields on fixed income securities in Mexico and Chile, as well as higher derivative income in Chile.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Favorable underwriting resulted in a $57 million increase to adjusted earnings primarily driven by lower claims experience in Mexico. Our annual actuarial assumption review resulted in a $13 million increase to adjusted earnings when compared to 2017. In addition, refinements to certain insurance liabilities and other adjustments in both 2018 and 2017, primarily in Brazil, Mexico and Chile, resulted in an $18 million decrease to adjusted earnings.

Expenses and Taxes. A $17 million decrease in expenses was primarily the result of a 2018 reduction of a litigation reserve in Argentina. Our results for 2018 include a $17 million tax charge related to a tax adjustment in Chile, a $5 million tax charge in Colombia to establish a deferred tax liability due to a change in tax status, a $2 million tax charge as a result of tax reform legislation also in Colombia, partially offset by a $4 million tax benefit due to inflation in Argentina. Our results for 2017 include a $9 million tax benefit related to the settlement of a tax audit and a $4 million tax charge incurred as a result of tax reform legislation, both in Argentina. Other tax-related items in both 2018 and 2017, primarily due to the changes in the valuation of the peso in Argentina, resulted in a $14 million increase in adjusted earnings.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. Changes in foreign currency exchange rates resulted in a slight decrease to adjusted earnings for 2017 as compared to 2016 mainly due to the weakening of the Mexican and Argentinean pesos against the U.S. dollar. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

Business Growth. Latin America experienced growth across several lines of business within Chile, Mexico and Brazil. This growth resulted in increased premiums and policy fee income which was partially offset by related changes in policyholder benefits. Positive net flows, primarily from Mexico and Chile, resulted in an increase in average invested assets and generated higher net investment income. This was partially offset by an increase in interest credited expense on certain insurance liabilities. Business growth also drove an increase in adjusted expenses and commissions, which were partially offset by higher DAC capitalization. The items discussed above resulted in an $86 million increase in adjusted earnings.

Market Factors. Market factors, including interest rate levels and variability in equity market returns continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Changes in market factors resulted in a $19 million increase in adjusted earnings primarily due to higher investment yields. The increase in investment yields was primarily driven by higher returns from FVO Securities in Chile and mortgage loans in Mexico. These increases were largely offset by higher interest credited expenses and lower yields on fixed income securities in Chile and Argentina.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Unfavorable underwriting resulted in a $37 million decrease to adjusted earnings driven by higher claims experience in Mexico. The impact in both 2017 and 2016 of our annual actuarial assumption review resulted in a slight decrease in adjusted earnings. In addition, refinements to certain insurance liabilities, primarily in the ProVida pension business, and other adjustments in both 2017 and 2016 resulted in a $5 million increase to adjusted earnings.

Expenses and Taxes. Higher expenses, primarily driven by employee-related and marketing costs, decreased adjusted earnings by $48 million as compared to 2016. Our results for 2017 include a $9 million tax benefit related to the settlement of a tax audit and a $4 million tax charge incurred as a result of tax reform legislation, both in Argentina. Our results for 2016 included a tax charge of $12 million as a result of tax reform legislation in Chile (including a charge of $10 million that pertains to periods prior to 2016). Also, our results for 2016 included a tax charge of $11 million related to the 2015 filing of local tax returns in Mexico and Chile. Other tax-related items in both 2017 and 2016 resulted in a $6 million decrease in adjusted earnings, primarily driven by a 2016 tax benefit due to inflation in Argentina.

EMEA

Business Overview. Sales decreased in 2018 primarily due to the closure of the U.K. wealth management product to new business in the third quarter of 2017 and a decline in sales of our employee benefits product in the Gulf region.

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Adjusted revenues			
Premiums	$ 2,131	$ 2,061	$ 2,027
Universal life and investment-type product policy fees	431	405	391
Net investment income	293	309	318
Other revenues	66	58	73
Total adjusted revenues	2,921	2,833	2,809
Adjusted expenses			
Policyholder benefits and claims and policyholder dividends	1,127	1,077	1,067
Interest credited to policyholder account balances	100	100	112
Capitalization of DAC	(468)	(414)	(403)
Amortization of DAC and VOBA	434	357	408
Amortization of negative VOBA	(15)	(19)	(13)
Other expenses	1,378	1,376	1,323
Total adjusted expenses	2,556	2,477	2,494
Provision for income tax expense (benefit)	88	59	42
Adjusted earnings	$ 277	$ 297	$ 273

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. The impact of changes in foreign currency exchange rates resulted in a slight increase in adjusted earnings for 2018 compared to 2017, primarily driven by the weakening of the U.S. dollar against the euro, the British pound, and the Polish zloty, almost entirely offset by the strengthening of the U.S. dollar against the Turkish lira. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

U.S. Tax Reform. The changes from U.S. Tax Reform resulted in a decrease in adjusted earnings of $21 million for 2018 as compared to 2017.

Business Growth. Growth from our credit life and accident & health businesses in Turkey and across several European markets resulted in a $25 million increase in adjusted earnings.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Less favorable underwriting, primarily in our accident & health business in Greece and our employee benefits business in the U.K., as well as unfavorable underwriting in the Gulf region and in our life insurance business in France, decreased adjusted earnings by $55 million. Our annual actuarial assumption review resulted in a decrease in adjusted earnings of $15 million when compared to 2017. In addition, adjusted earnings decreased by $2 million due to refinements recorded in 2017 in our employee benefits business in the U.K. and the Gulf region and, in 2018, in our life insurance business in the Gulf region.

Expenses. Adjusted earnings increased by $62 million due to lower costs associated with enterprise-wide initiatives, notably the closing of the wealth management product to new business in the U.K. in the third quarter of 2017, declines in various other expenses and the release of provisions arising from finalization of historic corporate tax filings.

Taxes and Other. A decrease in our invested asset base, primarily due to dividend payments, negatively impacted net investment income resulting in an $8 million decrease in adjusted earnings. In addition, adjusted earnings decreased by $5 million due to unfavorable revisions to tax assets in both 2018 and 2017 and a reinsurance profit share in 2017 resulted in a $2 million decrease in adjusted earnings.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. Changes in foreign currency exchange rates reduced adjusted earnings by $12 million for 2017 as compared to 2016, primarily driven by the strengthening of the U.S. dollar against the Egyptian pound and Turkish lira, partially offset by the weakening of the U.S. dollar against the Russian ruble and the Euro. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

Business Growth. Growth from our accident & health and credit life businesses in Turkey and our employee benefits business in the U.K., as well as growth across several European markets, partially offset by lower premium persistency in our employee benefits business in the Gulf, increased adjusted earnings by $25 million.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Underwriting experience was essentially unchanged as unfavorable underwriting, primarily in our credit life business in Turkey and across several European markets, was offset by favorable underwriting in our accident & health business in Greece. The impact in both 2017 and 2016 of our annual actuarial assumption review resulted in an $8 million increase in net adjusted earnings. Refinements to certain insurance liabilities and other adjustments in both 2017 and 2016 resulted in a $4 million decrease in adjusted earnings.

Expenses. Adjusted earnings increased by $5 million primarily due to expense discipline across the region, as well as enterprise-wide initiatives, notably the closing of the wealth management product to new business in the U.K., partially offset by additional costs related to regulatory and compliance requirements.

Taxes and Other. Our 2017 results include an unfavorable revision to the estimate of the valuation allowance required for a deferred tax asset in our non-life business of $5 million and an incremental tax expense in Russia of $2 million. This was offset by lower effective tax rates, which resulted in a $7 million increase to adjusted earnings. In addition, a 2017 reinsurance profit share of $2 million was offset by a 2016 benefit of $3 million following the cancellation of a distribution agreement with one of our bancassurance partners.

MetLife Holdings

Business Overview. In connection with the Separation and the U.S. Retail Advisor Force Divestiture, we have discontinued the marketing of life and annuity products in this segment, which has led to lower revenues. This will result in a declining DAC asset over time and we anticipate an average decline in premiums, fees and other revenues of approximately 5% per year from expected business run-off. A significant portion of our adjusted earnings is driven by separate account balances. Most directly, these balances determine asset-based fee income but they also impact DAC amortization and asset-based commissions. Separate account balances are driven by sales, movements in the market, surrenders, withdrawals, benefit payments, transfers and policy charges. Separate account balances decreased primarily due to the impact of negative net flows, as benefits, surrenders and withdrawals exceeded sales, as well as equity market performance. Although we have discontinued selling our long-term care product, we continue to collect premiums and administer the existing block of business, which contributed to asset growth in the segment, and we expect the related reserves to grow as this block matures.

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Adjusted revenues			
Premiums	$ 3,879	$ 4,144	$ 4,506
Universal life and investment-type product policy fees	1,218	1,361	1,436
Net investment income	5,379	5,607	5,944
Other revenues	250	244	581
Total adjusted revenues	10,726	11,356	12,467
Adjusted expenses			
Policyholder benefits and claims and policyholder dividends	6,833	7,000	7,523
Interest credited to policyholder account balances	944	1,018	1,042
Capitalization of DAC	(36)	(82)	(281)
Amortization of DAC and VOBA	332	302	736
Interest expense on debt	9	24	57
Other expenses	1,081	1,365	2,392
Total adjusted expenses	9,163	9,627	11,469
Provision for income tax expense (benefit)	308	547	292
Adjusted earnings	$ 1,255	$ 1,182	$ 706

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Unless otherwise stated, all amounts discussed below are net of income tax.

U.S. Tax Reform. The changes from U.S. Tax Reform resulted in an increase in adjusted earnings of $213 million for 2018 compared to 2017.

Business Growth. Lower net investment income, resulting from a reduced invested asset base, primarily in fixed income securities, decreased adjusted earnings. The reduced invested asset base is primarily the result of negative net flows in our deferred annuities and life businesses. This decline was partially offset by invested asset growth in our long-term care business. The negative net flows in our annuities business and a decrease in universal life deposits resulted in lower fee income and lower interest credited expenses. The continued maturing of the existing long-term care block of business resulted in higher interest credited expenses. The combined impact of the items affecting our business growth, partially offset by lower DAC amortization, resulted in a $192 million decrease in adjusted earnings.

Market Factors. Market factors, including interest rate levels, variability in equity market returns, and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Higher DAC amortization from annuities, driven by lower equity market returns, resulted in a decrease in adjusted earnings. Investment yields were favorably impacted by a reduction in investment expenses in addition to higher returns on both real estate investments and FVO Securities. These improvements in investment yields were partially offset by a decline in mortgage loan yields and lower returns on private equities. The changes in market factors discussed above resulted in a $31 million decrease in adjusted earnings.

Underwriting, Actuarial Assumption Review, and Other Insurance Adjustments. Unfavorable mortality in our life businesses, partially offset by favorable underwriting, primarily due to the impact of favorable rate actions in our long-term care business, and mortality gains on life-contingent annuities, resulted in a $32 million decrease in adjusted earnings. Our annual actuarial assumption review resulted in a decrease of $56 million in adjusted earnings when compared to 2017. Changes in operational assumptions, including updates to closed block projections, maintenance and other expenses, were less favorable in the current period. Refinements to DAC and certain insurance-related liabilities that were recorded in both 2018 and 2017 resulted in a $23 million increase in adjusted earnings. This includes the following 2018 refinements: (i) a charge relating to an increase in our IBNR life reserves, reflecting enhancements to our processes related to potential claims; (ii) a favorable reserve adjustment relating to certain variable annuity guarantees assumed from a former joint venture in Japan; and (iii) two separate favorable reserve adjustments resulting from modeling improvements in our life business. This also includes the following 2017 refinements: (i) a favorable DAC adjustment related to certain assumed participating whole life business; (ii) two separate favorable reserve adjustments resulting from modeling improvements in our life business; (iii) an unfavorable adjustment related to the recapture and novation of, as well as adjustments to, assumed and ceded agreements covering certain variable annuity business; (iv) an unfavorable net impact from a life reinsurance recapture; and (v) an unfavorable reserve adjustment resulting from modeling improvements in our long-term care business.

Expenses. Adjusted earnings increased by $145 million as a result of lower expenses, primarily due to declines in Separation-related expenses, as well as lower employee-related costs, including expenses related to pension and postretirement benefits.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

Unless otherwise stated, all amounts discussed below are net of income tax.

Business Growth. Lower net investment income, resulting from a reduced invested asset base, decreased adjusted earnings. The reduced asset base is primarily the result of the 2016 recapture of certain assumed single-premium deferred annuity reinsurance agreements with Brighthouse. This decline was partially offset by net asset growth in our long-term care and life businesses. Consistent with this asset growth, interest credited on insurance liabilities increased. In our deferred annuities business, negative net flows contributed to a decrease in average separate account balances, and consequently, asset-based fee income. The discontinuance of a distribution agreement, resulting from the Separation, also contributed to the decline in variable annuity fee income. In our life business, a decrease in universal life sales resulted in lower fee income, net of DAC amortization, decreasing adjusted earnings. The combined impact of the items discussed above resulted in a $314 million decrease in adjusted earnings.

Market Factors. Market factors, including interest rate levels, variability in equity market returns, and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Investment yields decreased primarily due to declines in prepayment fees and derivative income, as well as lower returns on real estate joint ventures. These reductions in yields were partially offset by higher returns on other limited partnership interests, driven by improvements in equity market performance. In our deferred annuity business, higher equity returns drove an increase in average separate account balances which resulted in higher asset-based fee income. Adjusted earnings increased due to declines in DAC amortization. The changes in market factors discussed above resulted in an $8 million increase in adjusted earnings.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Unfavorable claims experience in our long-term care business, partially offset by favorable mortality in our life business, resulted in a $20 million decrease in adjusted earnings. The impact in both 2017 and 2016 of our annual actuarial assumption review resulted in an increase of $156 million in adjusted earnings and was primarily related to favorable DAC unlockings in 2017 compared to unfavorable DAC unlockings in 2016, primarily in our life business. Refinements to DAC and certain insurance-related liabilities that were recorded in 2017 and 2016 resulted in a $196 million increase in adjusted earnings. This includes favorable 2017 refinements of (i) a $36 million DAC adjustment related to certain participating whole life business assumed from Brighthouse; and (ii) a $55 million reserve adjustment resulting from modeling improvements in our life business reserving process. This also includes a 2017 net unfavorable impact from a life reinsurance recapture and an unfavorable 2016 adjustment of $30 million resulting from modeling improvements in the reserving process in our universal life business.

Expenses. Adjusted earnings increased by $181 million as a result of lower expenses, primarily due to lower costs as a result of the U.S. Retail Advisor Force Divestiture, partially offset by Separation-related expenses.

Other. Adjusted earnings increased by $267 million as a result of the Separation and continued annuities reinsurance activity with Brighthouse. This favorable impact was primarily due to the recapture in 2016 of certain assumed single-premium deferred annuity reinsurance agreements, and the elimination of interest credited payments on the related reinsurance payable, as well as lower DAC amortization. This increase was partially offset by the net unfavorable impact in 2017 from the recapture and novation of, as well as refinements to, assumed and ceded agreements covering certain variable annuity business. Favorable results from our reinsurance agreement with our former operating joint venture in Japan due to higher fund returns resulted in a $13 million increase in adjusted earnings.

Corporate & Other

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Adjusted revenues			
Premiums	$ 118	$ 54	$ 40
Universal life and investment-type product policy fees	—	1	2
Net investment income	178	28	178
Other revenues	333	271	110
Total adjusted revenues	629	354	330
Adjusted expenses			
Policyholder benefits and claims and policyholder dividends	80	26	41
Interest credited to policyholder account balances	—	1	6
Capitalization of DAC	(8)	(8)	(7)
Amortization of DAC and VOBA	6	6	8
Interest expense on debt	1,032	1,105	1,139
Other expenses	907	894	597
Total adjusted expenses	2,017	2,024	1,784
Provision for income tax expense (benefit)	(825)	(688)	(948)
Adjusted earnings	(563)	(982)	(506)
Less: Preferred stock dividends	141	103	103
Adjusted earnings available to common shareholders	$ (704)	$ (1,085)	$ (609)

The table below presents adjusted earnings available to common shareholders by source:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Other business activities	$ 41	$ 28	$ (8)
Other net investment income	263	221	338
Interest expense on debt	(1,076)	(1,198)	(1,252)
Corporate initiatives and projects	(405)	(275)	(198)
Other	(368)	(384)	(332)
Provision for income tax (expense) benefit and other tax-related items	982	626	946
Preferred stock dividends	(141)	(103)	(103)
Adjusted earnings available to common shareholders	$ (704)	$ (1,085)	$ (609)

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Unless otherwise stated, all amounts discussed below are net of income tax.

U.S. Tax Reform. The changes from U.S. Tax Reform resulted in a decrease in adjusted earnings of $139 million for 2018 compared to 2017. Our 2018 results included a decrease in adjusted earnings of $315 million, primarily related to the lower tax rate along with a slight reduction in net investment income. Our 2017 results included a tax charge of $254 million to reflect the enactment of U.S. Tax Reform. Our 2018 results also include an additional tax charge of $78 million to reflect a revision to the estimate of this enactment.

Other Net Investment Income. Higher yields on fixed income securities, as well as higher returns on private equities and real estate investments, were partially offset by lower returns on the remainder of the portfolio, resulting in an increase of $33 million in other net investment income.

Interest Expense on Debt. Interest expense on debt decreased by $96 million, primarily due to: (i) the exchange of senior notes for FVO Brighthouse Common Stock; (ii) the redemption of senior notes for cash; (iii) the maturity of senior notes during 2018; (iv) lower interest rates on certain intercompany senior notes redenominated to Japanese yen; and (v) the maturity of $1.0 billion of senior notes in December 2017. These redenominated intercompany senior notes, which eliminate in consolidation, are held by our business segments.

Corporate Initiatives and Projects. Expenses associated with corporate initiatives and projects increased by $103 million, primarily due to higher costs associated with the continued investment in our unit cost initiative, partially offset by 2017 lease impairments and lower costs associated with certain other enterprise-wide initiatives.

Other. Adjusted earnings increased $13 million, primarily as a result of a $45 million decrease in expenses for interest on certain tax positions and $18 million of expenses incurred in 2017 and taxed at the 2017 rate related to the guaranty fund assessment for Penn Treaty. These favorable items are partially offset by a $39 million increase in certain corporate-related expenses and a $20 million increase in litigation accruals.

Provision for Income Tax (Expense) Benefit and Other Tax-Related Items. In addition to the impact of U.S. Tax Reform, Corporate & Other's effective tax rate differs from the U.S. statutory rate of 21% typically due to benefits from the impact of certain permanent tax-preferenced items, including non-taxable investment income, tax credits for investments in low income housing and foreign earnings taxed at different rates than the U.S. statutory rate. In 2018, the Company recognized net tax-related benefits of $364 million related to the settlement of tax audits. Of this amount, $349 million related to the tax treatment of a wholly-owned U.K. investment subsidiary of MLIC which was comprised of a $168 million tax benefit and a $181 million interest benefit. Our 2018 results also included a $36 million tax benefit related to a non-cash transfer of assets from a wholly-owned U.K. investment subsidiary to MLIC, as well as a $32 million tax charge for decreased utilization of tax-preferenced items. In 2017, the Company recognized a $180 million net tax charge related to the repatriation of approximately $3.0 billion of cash following the post-Separation review of our capital needs, partially offset by a tax benefit associated with dividends from our non-U.S. operations. Our 2017 results also included a $41 million net tax-related benefit from the finalization of certain tax audits.

Preferred Stock Dividends. Preferred stock dividends increased $38 million as a result of the issuance of Series D and Series E preferred stock in 2018.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

Unless otherwise stated, all amounts discussed below are net of income tax.

Other Business Activities. Adjusted earnings from other business activities increased $23 million. This was primarily due to growth and improved results from our start-up operations predominantly from our investment management business.

Other Net Investment Income. Other net investment income decreased by $76 million primarily driven by a lower invested asset base and lower returns on alternative investments (excluding the impact of U.S. Tax Reform) and real estate joint ventures. These decreases were partially offset by a decrease in the amount credited to the segments due to both a reduction in the crediting rate and the amount of economic capital managed by Corporate & Other on their behalf.

Interest Expense on Debt. Interest expense on debt decreased by $35 million, mainly due to the maturity of $1.3 billion of our senior notes in June 2016.

Corporate Initiatives and Projects. Expenses associated with corporate initiatives and projects increased by $50 million, primarily due to higher costs associated with enterprise-wide initiatives, primarily related to lease impairments and costs related to our unit cost initiative.

Other. Adjusted earnings decreased from 2016 as a result of a $32 million increase in asbestos and litigation reserves, a $25 million increase in employee-related expenses, $18 million of expenses incurred in 2017 related to the guaranty fund assessment for Penn Treaty, and a $13 million increase in expenses for interest on uncertain tax positions. These decreases in adjusted earnings were partially offset by a $31 million decrease in certain corporate expenses and $26 million of favorable net adjustments to certain reinsurance assets and liabilities in both 2017 and 2016.

Incremental Tax Benefit and Other Tax-Related Items. Corporate & Other benefits from the impact of certain permanent tax preferenced items, including non-taxable investment income and tax credits for investments in low income housing. As a result, our effective tax rate differs from the U.S. statutory rate of 35%. In 2017, we had a $180 million net tax charge related to the repatriation of approximately $3.0 billion of cash following the post-Separation review of our capital needs, partially offset by a tax benefit associated with dividends from our non-U.S. operations and a $41 million tax benefit from the finalization of certain tax audits. Results for 2016 include a $46 million tax benefit related to the finalization of certain tax audits. In addition, higher utilization of tax preferenced items increased adjusted earnings by $106 million over 2016.

U.S. Tax Reform resulted in a $298 million charge in 2017, which includes a $44 million reduction in net investment income and a $254 million tax charge.

Effects of Inflation

Management believes that inflation has not had a material effect on the Company's consolidated results of operations, except insofar as inflation may affect interest rates.

An increase in inflation could affect our business in several ways. During inflationary periods, the value of fixed income investments falls which could increase realized and unrealized losses. Inflation also increases expenses for labor and other materials, potentially putting pressure on profitability if such costs cannot be passed through in our product prices. Inflation could also lead to increased costs for losses and loss adjustment expenses in certain of our businesses, which could require us to adjust our pricing to reflect our expectations for future inflation. Prolonged and elevated inflation could adversely affect the financial markets and the economy generally, and dispelling it may require governments to pursue a restrictive fiscal and monetary policy, which could constrain overall economic activity, inhibit revenue growth and reduce the number of attractive investment opportunities.

Investments

Investment Risks

Our primary investment objective is to optimize, net of income tax, risk-adjusted investment income and risk-adjusted total return while ensuring that assets and liabilities are managed on a cash flow and duration basis. The Investments Department, led by the Chief Investment Officer, manages investment risks using a risk control framework comprised of policies, procedures and limits, as discussed further below. The Investments Risk Committee, chaired by GRM, reviews and monitors investment risk limits and tolerances. We are exposed to the following primary sources of investment risks:

- credit risk, relating to the uncertainty associated with the continued ability of a given obligor to make timely payments of principal and interest;
- interest rate risk, relating to the market price and cash flow variability associated with changes in market interest rates. Changes in market interest rates will impact the net unrealized gain or loss position of our fixed income investment portfolio and the rates of return we receive on both new funds invested and reinvestment of existing funds;
- liquidity risk, relating to the diminished ability to sell certain investments, in times of strained market conditions;
- market valuation risk, relating to the variability in the estimated fair value of investments associated with changes in market factors such as credit spreads and equity market levels. A widening of credit spreads will adversely impact the net unrealized gain (loss) position of the fixed income investment portfolio, will increase losses associated with credit-based non-qualifying derivatives where we assume credit exposure, and, if credit spreads widen significantly or for an extended period of time, will likely result in higher OTTI. Credit spread tightening will reduce net investment income associated with purchases of fixed maturity securities AFS and will favorably impact the net unrealized gain (loss) position of the fixed income investment portfolio;
- currency risk, relating to the variability in currency exchange rates for foreign denominated investments including with respect to the U.K.'s planned withdrawal from the EU. This risk relates to potential decreases in estimated fair value and net investment income resulting from changes in currency exchange rates versus the U.S. dollar. In general, the weakening of foreign currencies versus the U.S. dollar will adversely affect the estimated fair value of our foreign denominated investments; and
- real estate risk, relating to commercial, agricultural and residential real estate, and stemming from factors, which include, but are not limited to, market conditions, including the supply and demand of leasable commercial space, creditworthiness of borrowers and their tenants and joint venture partners, capital markets volatility, changes in market interest rates, commodity prices, farm incomes and U.S. housing market conditions.

We manage investment risk through in-house fundamental credit analysis of the underlying obligors, issuers, transaction structures and real estate properties. We also manage credit, market and liquidity risk through industry and issuer diversification and asset allocation. These risk limits, approved annually by a committee of directors that oversees our investment portfolio, promote diversification by asset sector, avoid concentrations in any single issuer and limit overall aggregate credit and equity risk exposure, as measured by our economic capital framework. For real estate assets, we manage credit and market risk through asset allocation and by diversifying by geography, property and product type. We manage interest rate risk as part of our ALM strategies. These strategies include maintaining an investment portfolio with diversified maturities that has a weighted average duration that reflects the duration of our estimated liability cash flow profile, and utilizing product design, such as the use of market value adjustment features and surrender charges, to manage interest rate risk. We also manage interest rate risk through proactive monitoring and management of certain NGEs of our products, such as the resetting of credited interest and dividend rates for policies that permit such adjustments. In addition to hedging with foreign currency derivatives, we manage currency risk by matching much of our foreign currency liabilities in our foreign subsidiaries with their respective foreign currency assets, thereby reducing our risk to foreign currency exchange rate fluctuation. We also use certain derivatives in the management of credit, interest rate, and market valuation risk.

We enter into market standard purchased and written credit default swap contracts. Payout under such contracts is triggered by certain credit events experienced by the referenced entities. For credit default swaps covering North American corporate issuers, credit events typically include bankruptcy and failure to pay on borrowed money. For European corporate issuers, credit events typically also include involuntary restructuring. With respect to credit default contracts on sovereign debt, credit events typically include failure to pay debt obligations, repudiation, moratorium, or involuntary restructuring. In each case, payout on a credit default swap is triggered only after the Credit Derivatives Determinations Committee of the International Swaps and Derivatives Association determines that a credit event has occurred.

We use purchased credit default swaps to mitigate credit risk in our investment portfolio. Generally, we purchase credit protection by entering into credit default swaps referencing the issuers of specific assets we own. In certain cases, basis risk exists between these credit default swaps and the specific assets we own. For example, we may purchase credit protection on a macro basis to reduce exposure to specific industries or other portfolio concentrations. In such instances, the referenced entities and obligations under the credit default swaps may not be identical to the individual obligors or securities in our investment portfolio. In addition, our purchased credit default swaps may have shorter tenors than the underlying investments they are hedging, which gives us more flexibility in managing our credit exposures. We believe that our purchased credit default swaps serve as effective economic hedges of our credit exposure.

Current Environment

As a global insurance company, we continue to be impacted by the changing global financial and economic environment, as well as the monetary policy of central banks around the world. See "— Industry Trends — Financial and Economic Environment." Measures taken by central banks, including with respect to the level of interest rates, may have an impact on the pricing levels of risk-bearing investments and may adversely impact our business operations, investment portfolio and derivatives. The current environment continues to impact our net investment income, net investment gains (losses), net derivative gains (losses), level of unrealized gains (losses) within the various asset classes in our investment portfolio, and our level of investment in lower yielding cash equivalents, short-term investments and government securities. See "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Adversely Affect Our Business, Results of Operations and Financial Condition."

European Investments

We maintain general account investments in Europe to support our insurance operations and related policyholder liabilities in these countries and certain of our non-European operations invest in Europe for diversification. In Europe, we have proactively mitigated risk in both direct and indirect exposures by investing in a diversified portfolio of high quality investments with a focus on the higher-rated countries, including the U.K., France, Germany, the Netherlands, Poland, Switzerland and Belgium. The sovereign and agency debt of these countries continues to maintain investment grade credit ratings from all major rating agencies. European sovereign and agency fixed maturity securities AFS, at estimated fair value, were $8.4 billion at December 31, 2018. Our European corporate securities (fixed maturity and perpetual hybrid securities classified as non-redeemable preferred stock) are invested in a diversified portfolio of primarily non-financial services securities, which comprised $21.3 billion, or 68%, of European corporate securities, at estimated fair value, at December 31, 2018. Of these European fixed maturity securities AFS, 96% were investment grade and, for the 4% that were below investment grade, the majority were non-financial services corporate securities at December 31, 2018. European financial services corporate securities, at estimated fair value, were $10.0 billion (including $6.3 billion within the banking sector) with 99% investment grade, at December 31, 2018. Total European fixed maturity securities AFS, at estimated fair value, were $40.0 billion at December 31, 2018, including $348 million of Structured Securities (see "— Fixed Maturity Securities AFS and Equity Securities").

Selected Country and Sector Investments

We have country specific exposure to volatility, as we maintain general account investments in the selected countries as summarized below to support our insurance operations and related policyholder liabilities in these countries and we also have exposure through our global portfolio diversification. In addition, we have sector specific exposure to volatility, including the impact of lower oil prices and variability in oil prices, on the energy sector.

Selected Country: The following table presents a summary of fixed maturity securities AFS in these countries. The information below is presented on a country of risk basis (e.g. the country where the issuer primarily conducts business). Sovereign includes government and agency.

	Selected Country Fixed Maturity Securities AFS at December 31, 2018				
	Sovereign	Financial Services	Non-Financial Services	Structured	Total (1)
	(Dollars in millions)				
United Kingdom	$ 25	$ 3,973	$ 9,840	$ 291	$ 14,129
Argentina	349	24	20	—	393
Turkey	189	5	77	—	271
Total	$ 563	$ 4,002	$ 9,937	$ 291	$ 14,793
Investment grade %	4%	99%	94%	85%	91%

(1) The par value and amortized cost of these selected country fixed maturity securities AFS were $14.4 billion and $15.4 billion, respectively, at December 31, 2018.

Selected Sector: Our exposure to energy sector fixed maturity securities AFS was $8.5 billion (comprised of fixed maturity securities AFS of $8.5 billion at estimated fair value and related net written credit default swaps of $55 million at notional value), of which 86% were investment grade, with unrealized losses of $15 million at December 31, 2018. We maintain a diversified energy sector fixed maturities securities portfolio across sub-sectors and issuers. This portfolio comprised less than 2% of total investments at December 31, 2018.

We manage direct and indirect investment exposure in the selected countries and the energy sector through fundamental credit analysis and we continually monitor and adjust our level of investment exposure. We do not expect that our general account investments in these countries or the energy sector will have a material adverse effect on our results of operations or financial condition.

Investment Portfolio Results

The reconciliation of net investment income under GAAP to net investment income, as reported on an adjusted earnings basis, is presented below.

	For the Years Ended December 31,		
	2018	2017	2016
	(In millions)		
Net investment income — GAAP basis	$ 16,166	$ 17,363	$ 16,790
Investment hedge adjustments	475	435	580
Unit-linked contract income	683	(1,300)	(950)
Other	59	46	17
Net investment income, as reported on an adjusted basis (1)	$ 17,383	$ 16,544	$ 16,437

(1) See "— Non-GAAP and Other Financial Disclosures — Adjusted earnings and related measures — Adjusted revenues and adjusted expenses — Net investment income" for a discussion of the adjustments made to net investment income under GAAP in calculating net investment income, as reported on an adjusted basis.

The following yield table presents our investment portfolio results for the periods indicated. We calculate yields on our investment portfolio using the non-GAAP performance metric of net investment income, as reported on an adjusted basis. Net investment income, as reported on an adjusted basis, includes the impact of changes in foreign currency exchange rates. This yield table presentation is consistent with how we measure our investment performance for management purposes, and we believe it enhances understanding of our investment portfolio results.

	For the Years Ended December 31,					
	2018		2017		2016	
	Yield% (1)	Amount	Yield% (1)	Amount	Yield% (1)	Amount
	(Dollars in millions)					
Fixed maturity securities AFS (2) (3)	4.26 %	$ 11,678	4.29 %	$ 11,401	4.38 %	$ 11,665
Mortgage loans (3)	4.66 %	3,340	4.58 %	3,081	4.61 %	2,858
Real estate and real estate joint ventures	3.59 %	352	3.18 %	297	3.73 %	322
Policy loans	5.21 %	506	5.39 %	517	5.29 %	511
Equity securities	4.79 %	64	5.15 %	129	4.82 %	120
Other limited partnership interests	12.97 %	792	14.93 %	797	9.23 %	478
Cash and short-term investments	2.41 %	244	1.48 %	132	1.17 %	111
Other invested assets		887		655		856
Investment income	4.56 %	17,863	4.53 %	17,009	4.58 %	16,921
Investment fees and expenses	(0.12)	(479)	(0.14)	(511)	(0.14)	(507)
Net investment income including divested businesses and lag elimination (4)	4.44 %	17,384	4.39 %	16,498	4.44 %	16,414
Less: net investment income from divested businesses and lag elimination (4)		1		(46)		(23)
Net investment income, as reported on an adjusted basis		$ 17,383		$ 16,544		$ 16,437

(1) Yields are calculated as investment income as a percent of average quarterly asset carrying values. Investment income excludes recognized gains and losses. Asset carrying values exclude unrealized gains (losses), collateral received in connection with our securities lending program, annuities funding structured settlement claims, freestanding derivative assets, collateral received from derivative counterparties, the effects of consolidating certain variable interest entities ("VIEs") under GAAP that are treated as consolidated securitization entities ("CSEs"), Unit-linked investments and FVO Brighthouse Common Stock. A yield is not presented for other invested assets as it is not considered a meaningful measure of performance for this asset class.

(2) Investment income from fixed maturity securities AFS includes amounts from FVO Securities of $51 million, $68 million and $37 million for the years ended December 31, 2018, 2017 and 2016, respectively.

(3) Investment income from fixed maturity securities AFS and mortgage loans includes prepayment fees.

(4) See "— Non-GAAP and Other Financial Disclosures" for discussion of divested businesses and lag elimination.

See "— Results of Operations — Consolidated Results — Adjusted Earnings" for an analysis of the period over period changes in investment portfolio results.

Fixed Maturity Securities AFS and Equity Securities

The following table presents fixed maturity securities AFS and equity securities by type (public or private) and information about perpetual and redeemable securities held at:

	December 31, 2018		December 31, 2017	
	Estimated Fair Value	% of Total	Estimated Fair Value	% of Total
	(Dollars in millions)			
Fixed maturity securities AFS				
Publicly-traded	$ 249,595	83.7 %	$ 262,078	84.8 %
Privately-placed	48,670	16.3	46,853	15.2
Total fixed maturity securities AFS	$ 298,265	100.0 %	$ 308,931	100.0 %
Percentage of cash and invested assets	66.0%		67.6%	
Equity securities				
Publicly-traded	$ 1,282	89.0 %	$ 1,490	59.3 %
Privately-held	158	11.0	1,023	40.7
Total equity securities	$ 1,440	100.0 %	$ 2,513	100.0 %
Percentage of cash and invested assets	0.3%		0.6%	
Perpetual and redeemable securities				
Perpetual securities included within fixed maturity securities AFS and equity securities	$ 367		$ 440	
Redeemable preferred stock with a stated maturity included within fixed maturity securities AFS	$ 911		$ 884	

Included within fixed maturity securities AFS are structured securities including residential mortgage-backed securities (“RMBS”), asset-backed securities (“ABS”) and commercial mortgage-backed securities (“CMBS”) (collectively, “Structured Securities”).

Perpetual securities are included within fixed maturity securities AFS and equity securities. Upon acquisition, we classify perpetual securities that have attributes of both debt and equity as fixed maturity securities AFS if the securities have an interest rate step-up feature which, when combined with other qualitative factors, indicates that the securities have more debt-like characteristics; while those with more equity-like characteristics are classified as equity securities. Many of such securities, commonly referred to as “perpetual hybrid securities,” have been issued by non-U.S. financial institutions that are accorded the highest two capital treatment categories by their respective regulatory bodies (i.e. core capital, or “Tier 1 capital” and perpetual deferrable securities, or “Upper Tier 2 capital”).

Redeemable preferred stock with a stated maturity is included within fixed maturity securities AFS. These securities, which are commonly referred to as “capital securities,” primarily have cumulative interest deferral features and are primarily issued by U.S. financial institutions.

Valuation of Securities. We are responsible for the determination of the estimated fair value of our investments. We determine the estimated fair value of publicly-traded securities after considering one of three primary sources of information: quoted market prices in active markets, independent pricing services, or independent broker quotations. We determine the estimated fair value of privately-placed securities after considering one of three primary sources of information: market standard internal matrix pricing, market standard internal discounted cash flow techniques, or independent pricing services (after we determine the independent pricing services' use of available observable market data). For publicly-traded securities, the number of quotations obtained varies by instrument and depends on the liquidity of the particular instrument. Generally, we obtain prices from multiple pricing services to cover all asset classes and obtain multiple prices for certain securities, but ultimately utilize the price with the highest placement in the fair value hierarchy. Independent pricing services that value these instruments use market standard valuation methodologies based on data about market transactions and inputs from multiple pricing sources that are market observable or can be derived principally from or corroborated by observable market data. See Note 10 of the Notes to the Consolidated Financial Statements for a discussion of the types of market standard valuation methodologies utilized and key assumptions and observable inputs used in applying these standard valuation methodologies. When a price is not available in the active market or through an independent pricing service, management values the security primarily using market standard internal matrix pricing or discounted cash flow techniques, and non-binding quotations from independent brokers who are knowledgeable about these securities. Independent non-binding broker quotations utilize inputs that may be difficult to corroborate with observable market data. As shown in the following section, less than 1% of our fixed maturity securities AFS were valued using non-binding quotations from independent brokers at December 31, 2018.

Senior management, independent of the trading and investing functions, is responsible for the oversight of control systems and valuation policies for securities, mortgage loans and derivatives. On a quarterly basis, new transaction types and markets are reviewed and approved to ensure that observable market prices and market-based parameters are used for valuation, wherever possible, and for determining that valuation adjustments, when applied, are based upon established policies and are applied consistently over time. Senior management oversees the selection of independent third-party pricing providers and the controls and procedures to evaluate third-party pricing.

We review our valuation methodologies on an ongoing basis and revise those methodologies when necessary based on changing market conditions. Assurance is gained on the overall reasonableness and consistent application of input assumptions, valuation methodologies and compliance with fair value accounting standards through controls designed to ensure valuations represent an exit price. Several controls are utilized, including certain monthly controls, which include, but are not limited to, analysis of portfolio returns to corresponding benchmark returns, comparing a sample of executed prices of securities sold to the fair value estimates, comparing fair value estimates to management's knowledge of the current market, reviewing the bid/ask spreads to assess activity, comparing prices from multiple independent pricing services and ongoing due diligence to confirm that independent pricing services use market-based parameters. The process includes a determination of the observability of inputs used in estimated fair values received from independent pricing services or brokers by assessing whether these inputs can be corroborated by observable market data. We ensure that prices received from independent brokers, also referred to herein as "consensus pricing," are representative of estimated fair value by considering such pricing relative to our knowledge of the current market dynamics and current pricing for similar financial instruments. While independent non-binding broker quotations are utilized, they are not used for a significant portion of the portfolio.

We also apply a formal process to challenge any prices received from independent pricing services that are not considered representative of estimated fair value. If prices received from independent pricing services are not considered reflective of market activity or representative of estimated fair value, independent non-binding broker quotations are obtained, or an internally developed valuation is prepared. Internally developed valuations of current estimated fair value, compared with pricing received from the independent pricing services, did not produce material differences in the estimated fair values for the majority of the portfolio; accordingly, overrides were not material. This is, in part, because internal estimates are generally based on available market evidence and estimates used by other market participants. In the absence of such market-based evidence, management's best estimate is used.

We have reviewed the significance and observability of inputs used in the valuation methodologies to determine the appropriate fair value hierarchy level for each of our securities. Based on the results of this review and investment class analysis, each instrument is categorized as Level 1, 2 or 3 based on the lowest level significant input to its valuation. See Note 10 of the Notes to the Consolidated Financial Statements for information regarding the valuation techniques and inputs by level within the three-level fair value hierarchy by major classes of invested assets.

Fair Value of Fixed Maturity Securities AFS and Equity Securities

Fixed maturity securities AFS and equity securities measured at estimated fair value on a recurring basis and their corresponding fair value pricing sources are as follows:

	December 31, 2018			
	Fixed Maturity Securities AFS		Equity Securities	
	(Dollars in millions)			
Level 1				
Quoted prices in active markets for identical assets	$ 19,656	6.6%	$ 916	63.6%
Level 2				
Independent pricing sources	261,605	87.7	70	4.9
Internal matrix pricing or discounted cash flow techniques	2,133	0.7	35	2.4
Significant other observable inputs	263,738	88.4	105	7.3
Level 3				
Independent pricing sources	10,506	3.6	307	21.3
Internal matrix pricing or discounted cash flow techniques	3,976	1.3	107	7.4
Independent broker quotations	389	0.1	5	0.4
Significant unobservable inputs	14,871	5.0	419	29.1
Total estimated fair value	$ 298,265	100.0%	$ 1,440	100.0%

See Note 10 of the Notes to the Consolidated Financial Statements for the fixed maturity securities AFS and equity securities fair value hierarchy.

The majority of the Level 3 fixed maturity securities AFS and equity securities were concentrated in three sectors: U.S. and foreign corporate securities and RMBS at December 31, 2018. During the year ended December 31, 2018, Level 3 fixed maturity securities AFS decreased by $1.4 billion, or 9%. The decrease was driven by transfers out of Level 3 in excess of transfers into Level 3 and a decrease in estimated fair value recognized in OCI, partially offset by purchases in excess of sales.

See "— Fixed Maturity Securities AFS and Equity Securities — Valuation of Securities" for further information regarding the composition of fair value pricing sources for securities. See Note 10 of the Notes to the Consolidated Financial Statements for a rollforward of the fair value measurements for securities measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs; transfers into and/or out of Level 3; and further information about the valuation approaches and inputs by level by major classes of invested assets that affect the amounts reported above.

Fixed Maturity Securities AFS

See Notes 1 and 8 of the Notes to the Consolidated Financial Statements for information about fixed maturity securities AFS by sector, contractual maturities and continuous gross unrealized losses.

Fixed Maturity Securities AFS Credit Quality — Ratings

The Securities Valuation Office of the NAIC evaluates the fixed maturity security investments of insurers for regulatory reporting and capital assessment purposes and assigns securities to one of six credit quality categories called "NAIC designations." If no designation is available from the NAIC, then, as permitted by the NAIC, an internally developed designation is used. The NAIC designations are generally similar to the credit quality ratings of the NRSRO for fixed maturity securities AFS, except for certain Structured Securities as described below. Rating agency ratings are based on availability of applicable ratings from rating agencies on the NAIC credit rating provider list, including Moody's, S&P, Fitch, Dominion Bond Rating Service, A.M. Best, Kroll Bond Rating Agency, Egan Jones Ratings Company and Morningstar Credit Ratings, LLC ("Morningstar"). If no rating is available from a rating agency, then an internally developed rating is used.

The NAIC has adopted revised methodologies for certain Structured Securities comprised of non-agency RMBS, CMBS and ABS. The NAIC's objective with the revised methodologies for these Structured Securities was to increase the accuracy in assessing expected losses, and to use the improved assessment to determine a more appropriate capital requirement for such Structured Securities. The revised methodologies reduce regulatory reliance on rating agencies and allow for greater regulatory input into the assumptions used to estimate expected losses from Structured Securities. We apply the revised NAIC methodologies to Structured Securities held by MetLife, Inc.'s insurance subsidiaries that maintain the NAIC statutory basis of accounting. The NAIC's present methodology is to evaluate Structured Securities held by insurers using the revised NAIC methodologies on an annual basis. If MetLife, Inc.'s insurance subsidiaries acquire Structured Securities that have not been previously evaluated by the NAIC, but are expected to be evaluated by the NAIC in the upcoming annual review, an internally developed designation is used until a NAIC designation becomes available. NAIC designations may not correspond to NRSRO ratings.

The following table presents total fixed maturity securities AFS by NRSRO rating and the applicable NAIC designation from the NAIC published comparison of NRSRO ratings to NAIC designations, except for certain Structured Securities, which are presented using the revised NAIC methodologies as described above, as well as the percentage, based on estimated fair value that each NAIC designation is comprised of at:

		December 31,							
		2018				2017			
NAIC Designation	NRSRO Rating	Amortized Cost	Unrealized Gain (Loss)	Estimated Fair Value	% of Total	Amortized Cost	Unrealized Gain (Loss)	Estimated Fair Value	% of Total
		(Dollars in millions)							
1	Aaa/Aa/A	$ 197,604	$ 11,202	$ 208,806	70.0 %	$ 201,806	$ 17,024	$ 218,830	70.8 %
2	Baa	72,482	659	73,141	24.5	67,270	5,126	72,396	23.4
	Subtotal investment grade	270,086	11,861	281,947	94.5	269,076	22,150	291,226	94.2
3	Ba	11,249	(91)	11,158	3.7	11,155	556	11,711	3.8
4	B	4,745	(247)	4,498	1.6	5,004	151	5,155	1.7
5	Caa and lower	720	(73)	647	0.2	824	9	833	0.3
6	In or near default	16	(1)	15	—	10	(4)	6	—
	Subtotal below investment grade	16,730	(412)	16,318	5.5	16,993	712	17,705	5.8
	Total fixed maturity securities AFS	$ 286,816	$ 11,449	$ 298,265	100.0 %	$ 286,069	$ 22,862	$ 308,931	100.0 %

The following tables present total fixed maturity securities AFS, based on estimated fair value, by sector classification and by NRSRO rating and the applicable NAIC designations from the NAIC published comparison of NRSRO ratings to NAIC designations, except for certain Structured Securities, which are presented using the revised NAIC methodologies as described above:

	Fixed Maturity Securities AFS — by Sector & Credit Quality Rating						
NAIC Designation:	**1**	**2**	**3**	**4**	**5**	**6**	**Total Estimated Fair Value**
NRSRO Rating:	**Aaa/Aa/A**	**Baa**	**Ba**	**B**	**Caa and Lower**	**In or Near Default**	
	(Dollars in millions)						
December 31, 2018							
U.S. corporate	$ 34,363	$ 35,081	$ 5,850	$ 3,102	$ 544	$ 8	$ 78,948
Foreign government	54,149	5,140	2,389	604	5	1	62,288
Foreign corporate	22,602	30,849	2,534	669	49	—	56,703
U.S. government and agency	38,915	407	—	—	—	—	39,322
RMBS	27,370	350	138	94	3	6	27,961
ABS	11,467	772	204	26	3	—	12,472
Municipals	11,056	439	38	—	—	—	11,533
CMBS	8,884	103	5	3	43	—	9,038
Total fixed maturity securities AFS	$ 208,806	$ 73,141	$ 11,158	$ 4,498	$ 647	$ 15	$ 298,265
Percentage of total	70.0%	24.5%	3.7%	1.6%	0.2%	—%	100.0%
December 31, 2017							
U.S. corporate	$ 37,305	$ 35,096	$ 6,153	$ 3,387	$ 717	$ 3	$ 82,661
Foreign government	53,027	5,135	2,376	947	49	—	61,534
Foreign corporate	21,925	30,214	2,616	759	55	—	55,569
U.S. government and agency	47,067	327	—	—	—	—	47,394
RMBS	28,209	297	224	61	9	—	28,800
ABS	11,311	760	215	1	3	1	12,291
Municipals	11,921	454	78	—	—	2	12,455
CMBS	8,065	113	49	—	—	—	8,227
Total fixed maturity securities AFS	$ 218,830	$ 72,396	$ 11,711	$ 5,155	$ 833	$ 6	$ 308,931
Percentage of total	70.8%	23.4%	3.8%	1.7%	0.3%	—%	100.0%

U.S. and Foreign Corporate Fixed Maturity Securities AFS

We maintain a diversified portfolio of corporate fixed maturity securities AFS across industries and issuers. This portfolio does not have any exposure to any single issuer in excess of 1% of total investments and the top 10 holdings comprised 1% of total investments at both December 31, 2018 and 2017. The tables below present our U.S. and foreign corporate securities holdings by industry at:

	December 31,			
	2018		2017	
	Estimated Fair Value	% of Total	Estimated Fair Value	% of Total
	(Dollars in millions)			
Industrial	$ 40,556	29.9%	$ 42,273	30.6%
Finance	30,546	22.5	29,884	21.6
Consumer	30,140	22.2	31,419	22.7
Utility	22,206	16.4	21,773	15.8
Communications	10,406	7.7	11,072	8.0
Other	1,797	1.3	1,809	1.3
Total	$ 135,651	100.0%	$ 138,230	100.0%

Structured Securities

We held $49.5 billion and $49.3 billion of Structured Securities, at estimated fair value, at December 31, 2018 and 2017, respectively, as presented in the RMBS, ABS and CMBS sections below.

RMBS

Our RMBS holdings by security type, risk profile and ratings profile are as follows at:

	December 31,					
	2018			2017		
	Estimated Fair Value	% of Total	Net Unrealized Gains (Losses)	Estimated Fair Value	% of Total	Net Unrealized Gains (Losses)
	(Dollars in millions)					
By security type:						
Collateralized mortgage obligations	$ 15,302	54.7%	$ 726	$ 15,388	53.4%	$ 913
Pass-through securities	12,659	45.3	(174)	13,412	46.6	41
Total RMBS	$ 27,961	100.0%	$ 552	$ 28,800	100.0%	$ 954
By risk profile:						
Agency	$ 19,834	70.9%	$ 5	$ 20,010	69.5%	$ 274
Prime	1,123	4.0	47	1,209	4.2	73
Alt-A	3,361	12.0	277	4,182	14.5	372
Sub-prime	3,643	13.1	223	3,399	11.8	235
Total RMBS	$ 27,961	100.0%	$ 552	$ 28,800	100.0%	$ 954
Ratings profile:						
Rated Aaa/AAA	$ 20,666	73.9%		$ 20,465	71.1%	
Designated NAIC 1	$ 27,370	97.9%		$ 28,209	97.9%	

Collateralized mortgage obligations are structured by dividing the cash flows of mortgage loans into separate pools or tranches of risk that create multiple classes of bonds with varying maturities and priority of payments. Pass-through mortgage-backed securities are secured by a mortgage loan or collection of mortgage loans. The monthly mortgage loan payments from homeowners pass from the originating bank through an intermediary, such as a government agency or investment bank, which collects the payments and, for a fee, remits or passes these payments through to the holders of the pass-through securities.

The majority of our RMBS holdings were rated Aaa/AAA by Moody's, S&P or Fitch; and were designated NAIC 1 by the NAIC at December 31, 2018 and 2017. Agency RMBS were guaranteed or otherwise supported by Federal National Mortgage Association, Federal Home Loan Mortgage Corporation or Government National Mortgage Association. Non-agency RMBS include prime, alternative residential mortgage loans ("Alt-A") and sub-prime RMBS. Prime residential mortgage lending includes the origination of residential mortgage loans to the most creditworthy borrowers with high quality credit profiles. Alt-A is a classification of mortgage loans where the risk profile of the borrower is between prime and sub-prime. Sub-prime mortgage lending is the origination of residential mortgage loans to borrowers with weak credit profiles.

Included within prime and Alt-A RMBS are re-securitization of real estate mortgage investment conduit ("Re-REMIC") securities. Re-REMIC RMBS involve the pooling of previous issues of prime and Alt-A RMBS and restructuring the combined pools to create new senior and subordinated securities. The credit enhancement on the senior tranches is improved through the re-securitization.

Historically, we have managed our exposure to sub-prime RMBS holdings by focusing primarily on senior tranche securities, stress testing the portfolio with severe loss assumptions and closely monitoring the performance of the portfolio. Our sub-prime RMBS portfolio consists predominantly of securities that were purchased after 2012 at significant discounts to par value and discounts to the expected principal recovery value of these securities. The vast majority of these securities are investment grade under the NAIC designations (e.g., NAIC 1 and NAIC 2). The estimated fair value of our sub-prime RMBS holdings purchased since 2012 was $3.4 billion and $3.1 billion at December 31, 2018 and 2017, respectively, with unrealized gains (losses) of $201 million and $200 million at December 31, 2018 and 2017, respectively.

ABS

Our ABS holdings are diversified both by collateral type and by issuer. The following table presents our ABS holdings by collateral type and ratings profile at:

	December 31,					
	2018			2017		
	Estimated Fair Value	% of Total	Net Unrealized Gains (Losses)	Estimated Fair Value	% of Total	Net Unrealized Gains (Losses)
	(Dollars in millions)					
By collateral type:						
Collateralized debt obligations	$ 6,724	53.9%	$ (112)	$ 5,703	46.4%	$ 45
Student loans	1,256	10.1	13	1,266	10.3	(1)
Foreign residential loans	1,066	8.5	11	965	7.9	20
Automobile loans	895	7.2	1	1,193	9.7	—
Credit card loans	668	5.3	—	1,686	13.7	1
Consumer loans	580	4.7	4	605	4.9	6
Other loans	1,283	10.3	3	873	7.1	7
Total	$ 12,472	100.0%	$ (80)	$ 12,291	100.0%	$ 78
Ratings profile:						
Rated Aaa/AAA	$ 7,142	57.3%		$ 7,108	57.8%	
Designated NAIC 1	$ 11,467	91.9%		$ 11,311	92.0%	

CMBS

Our CMBS holdings are diversified by vintage year. The following tables present our CMBS holdings by NRSRO rating and vintage year at:

	December 31, 2018											
	Aaa		Aa		A		Baa		Below Investment Grade		Total	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
	(Dollars in millions)											
2003 - 2011	$ 257	$ 271	$ 40	$ 40	$ —	$ —	$ —	$ —	$ —	$ —	$ 297	$ 311
2012	231	237	226	224	229	227	7	6	—	—	693	694
2013	723	746	644	655	279	277	—	—	59	43	1,705	1,721
2014	381	379	488	485	128	127	—	—	—	—	997	991
2015	523	514	81	80	34	34	—	—	—	—	638	628
2016	345	339	84	80	46	46	—	—	—	—	475	465
2017	862	851	666	654	234	228	39	39	—	—	1,801	1,772
2018	1,434	1,445	690	695	292	293	23	23	—	—	2,439	2,456
Total	$ 4,756	$ 4,782	$ 2,919	$ 2,913	$ 1,242	$ 1,232	$ 69	$ 68	$ 59	$ 43	$ 9,045	$ 9,038
Ratings Distribution		52.9%		32.2%		13.6%		0.8%		0.5%		100.0%

	December 31, 2017											
	Aaa		Aa		A		Baa		Below Investment Grade		Total	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
	(Dollars in millions)											
2003 - 2011	$ 286	$ 308	$ 38	$ 40	$ 22	$ 23	$ 15	$ 15	$ —	$ —	$ 361	$ 386
2012	289	302	257	263	230	237	7	7	—	—	783	809
2013	787	835	717	748	285	292	60	45	—	—	1,849	1,920
2014	537	552	513	522	129	130	—	—	—	—	1,179	1,204
2015	1,122	1,140	191	196	117	120	—	—	—	—	1,430	1,456
2016	401	404	69	68	40	40	65	66			575	578
2017	898	899	685	687	246	246	41	42	—	—	1,870	1,874
Total	$ 4,320	$ 4,440	$ 2,470	$ 2,524	$ 1,069	$ 1,088	$ 188	$ 175	$ —	$ —	$ 8,047	$ 8,227
Ratings Distribution		54.0%		30.7%		13.2%		2.1%		—%		100.0%

The tables above reflect NRSRO ratings including Moody’s, S&P, Fitch and Morningstar. CMBS designated NAIC 1 were 98.3% and 98.0% of total CMBS at December 31, 2018 and 2017, respectively.

Evaluation of Fixed Maturity Securities AFS for OTTI and Evaluating Temporarily Impaired Fixed Maturity Securities AFS

See Note 8 of the Notes to the Consolidated Financial Statements for information about the evaluation of fixed maturity securities AFS for OTTI and evaluation of temporarily impaired fixed maturity securities AFS.

OTTI Losses on Fixed Maturity Securities AFS Recognized in Earnings

See Note 8 of the Notes to the Consolidated Financial Statements for information about OTTI losses and gross gains and gross losses on fixed maturity securities AFS sold.

Overview of OTTI Losses on Securities Recognized in Earnings

Credit-related impairments of fixed maturity securities AFS were $40 million, $10 million and $97 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Explanations of changes in fixed maturity securities AFS and equity securities impairments are as follows:

Year Ended December 31, 2018 Compared with the Year Ended December 31, 2017

Overall OTTI losses recognized in earnings on fixed maturity securities AFS were $40 million for the year ended December 31, 2018, as compared to $10 million for the year ended December 31, 2017. The most significant increase in OTTI losses was in U.S. and foreign corporate securities and foreign government securities, which comprised $40 million for the year ended December 31, 2018, as compared to $4 million for the year ended December 31, 2017. An increase of $36 million in OTTI losses was mainly concentrated in consumer and Argentine foreign government securities and was a result of issuer specific factors and from weakening of the Argentine peso.

In 2018, we adopted new guidance under which equity securities are no longer evaluated for impairment, rather are measured at fair value through net income. Accordingly, there were no equity securities impairments for the year ended December 31, 2018. See Note 1 of the Notes to the Consolidated Financial Statements.

Year Ended December 31, 2017 Compared with the Year Ended December 31, 2016

Overall OTTI losses recognized in earnings on fixed maturity securities AFS were $10 million for the year ended December 31, 2017, as compared to $107 million for the year ended December 31, 2016. The most significant decrease in OTTI losses was in U.S. and foreign corporate securities, which comprised $4 million for the year ended December 31, 2017, as compared to $87 million for the year ended December 31, 2016. A decrease of $83 million in OTTI losses was concentrated in industrial securities and was the result of lower oil prices impacting the energy sector in 2016.

Overall OTTI losses recognized in earnings on equity securities were $25 million for the year ended December 31, 2017, as compared to $75 million for the year ended December 31, 2016, a decrease of $50 million, reflecting the impact of lower oil prices impacting the energy sector in 2016.

Future Impairments

Future OTTI on fixed maturity securities AFS will depend primarily on economic fundamentals, issuer performance (including changes in the present value of future cash flows expected to be collected), and changes in credit ratings, collateral valuation and foreign currency exchange rates. If economic fundamentals deteriorate or if there are adverse changes in the above factors, OTTI may be incurred in upcoming periods. See Note 1 of the Notes to the Consolidated Financial Statements for a description of new guidance to be adopted in 2020 regarding the measurement of credit losses on financial instruments.

Contractholder-Directed Equity Securities and Fair Value Option Securities

The estimated fair value of these investments, which are primarily comprised of Unit-linked investments, was $12.6 billion and $16.7 billion, or 2.8% and 3.7% of cash and invested assets, at December 31, 2018 and 2017, respectively. See Notes 1 and 10 of the Notes to the Consolidated Financial Statements for a description of this portfolio, its fair value hierarchy and a rollforward of the fair value measurements for these investments measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs.

Securities Lending and Repurchase Agreements

We participate in a securities lending program whereby securities are loaned to third parties, primarily brokerage firms and commercial banks. In addition, we participate in short-term repurchase agreement transactions with unaffiliated financial institutions.

See "— Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Securities Lending," "— Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Repurchase Agreements" and Notes 1 and 8 of the Notes to the Consolidated Financial Statements for information regarding our securities lending program and our repurchase agreement transactions.

FHLB of Boston Advance Agreements

A subsidiary of the Company has entered into short-term advance agreements with the FHLB of Boston.

See Note 8 of the Notes to the Consolidated Financial Statements for information regarding our FHLB of Boston advance agreement transactions.

Mortgage Loans

Our mortgage loans are principally collateralized by commercial, agricultural and residential properties. Mortgage loans and the related valuation allowances are summarized as follows at:

	December 31,							
	2018				2017			
	Recorded Investment	% of Total	Valuation Allowance	% of Recorded Investment	Recorded Investment	% of Total	Valuation Allowance	% of Recorded Investment
	(Dollars in millions)							
Commercial	$ 48,463	63.9%	$ 238	0.5%	$ 44,375	64.8%	$ 214	0.5%
Agricultural	14,905	19.7	46	0.3%	13,014	19.0	41	0.3%
Residential	12,427	16.4	58	0.5%	11,136	16.2	59	0.5%
Total	$ 75,795	100.0%	$ 342	0.5%	$ 68,525	100.0%	$ 314	0.5%

The information presented in the tables herein exclude mortgage loans where we elected the FVO. Such amounts are presented in Note 8 of the Notes to the Consolidated Financial Statements. The carrying value of all mortgage loans, net of valuation allowance was 16.8% and 15.0% of cash and invested assets at December 31, 2018 and 2017, respectively.

We diversify our mortgage loan portfolio by both geographic region and property type to reduce the risk of concentration. Of our commercial and agricultural mortgage loan portfolios, 84% are collateralized by properties located in the United States, with the remaining 16% collateralized by properties located outside the United States, which includes 5% of properties located in the U.K., at December 31, 2018. The carrying values of our commercial and agricultural mortgage loans located in California, New York and Texas were 19%, 11% and 7%, respectively, of total commercial and agricultural mortgage loans at December 31, 2018. Additionally, we manage risk when originating commercial and agricultural mortgage loans by generally lending up to 75% of the estimated fair value of the underlying real estate collateral.

We manage our residential mortgage loan portfolio in a similar manner to reduce risk of concentration, with 92% collateralized by properties located in the United States, and the remaining 8% collateralized by properties located outside the United States, at December 31, 2018. The carrying values of our residential mortgage loans located in California, Florida, and New York were 31%, 9%, and 6%, respectively, of total residential mortgage loans at December 31, 2018.

Commercial Mortgage Loans by Geographic Region and Property Type. Commercial mortgage loans are the largest component of the mortgage loan invested asset class. The tables below present the diversification across geographic regions and property types of commercial mortgage loans at:

	December 31,			
	2018		2017	
	Amount	% of Total	Amount	% of Total
	(Dollars in millions)			
Region				
Pacific	$ 10,884	22.5%	$ 9,875	22.3%
International	9,281	19.1	9,101	20.5
Middle Atlantic	7,911	16.3	7,231	16.3
South Atlantic	6,347	13.1	5,311	12.0
West South Central	3,951	8.1	3,819	8.6
East North Central	2,840	5.9	2,683	6.0
New England	1,481	3.1	901	2.0
Mountain	1,387	2.9	1,188	2.7
West North Central	594	1.2	477	1.1
East South Central	564	1.2	840	1.9
Multi-Region and Other	3,223	6.6	2,949	6.6
Total recorded investment	48,463	100.0%	44,375	100.0%
Less: valuation allowances	238		214	
Carrying value, net of valuation allowances	$ 48,225		$ 44,161	
Property Type				
Office	$ 23,995	49.5%	$ 22,602	50.9%
Retail	9,089	18.7	8,032	18.1
Apartment	7,018	14.5	6,113	13.8
Industrial	3,719	7.7	3,125	7.0
Hotel	3,479	7.2	3,620	8.2
Other	1,163	2.4	883	2.0
Total recorded investment	48,463	100.0%	44,375	100.0%
Less: valuation allowances	238		214	
Carrying value, net of valuation allowances	$ 48,225		$ 44,161	

Mortgage Loan Credit Quality — Monitoring Process. We monitor our mortgage loan investments on an ongoing basis, including a review of loans that are current, past due, restructured and under foreclosure. See Note 8 of the Notes to the Consolidated Financial Statements for tables that present mortgage loans by credit quality indicator, past due and nonaccrual mortgage loans, impaired loans, as well as the carrying value of foreclosed mortgage loans included in real estate and real estate joint ventures.

We review our commercial mortgage loans on an ongoing basis. These reviews may include an analysis of the property financial statements and rent roll, lease rollover analysis, property inspections, market analysis, estimated valuations of the underlying collateral, loan-to-value ratios, debt service coverage ratios and tenant creditworthiness. The monitoring process focuses on higher risk loans, which include those that are classified as restructured, delinquent or in foreclosure, as well as loans with higher loan-to-value ratios and lower debt service coverage ratios. The monitoring process for agricultural mortgage loans is generally similar, with a focus on higher risk loans, such as loans with higher loan-to-value ratios, including reviews on a geographic and sector basis. We review our residential mortgage loans on an ongoing basis. See Note 8 of the Notes to the Consolidated Financial Statements for information on our evaluation of residential mortgage loans and related valuation allowance methodology.

Loan-to-value ratios and debt service coverage ratios are common measures in the assessment of the quality of commercial mortgage loans. Loan-to-value ratios are a common measure in the assessment of the quality of agricultural mortgage loans. Loan-to-value ratios compare the amount of the loan to the estimated fair value of the underlying collateral. A loan-to-value ratio greater than 100% indicates that the loan amount is greater than the collateral value. A loan-to-value ratio of less than 100% indicates an excess of collateral value over the loan amount. Generally, the higher the loan-to-value ratio, the higher the risk of experiencing a credit loss. The debt service coverage ratio compares a property's net operating income to amounts needed to service the principal and interest due under the loan. Generally, the lower the debt service coverage ratio, the higher the risk of experiencing a credit loss. For our commercial mortgage loans, our average loan-to-value ratio was 55% and 54% at December 31, 2018 and 2017, respectively, and our average debt service coverage ratio was 2.5x and 2.7x at December 31, 2018 and 2017, respectively. The debt service coverage ratio, as well as the values utilized in calculating the ratio, is updated annually on a rolling basis, with a portion of the portfolio updated each quarter. In addition, the loan-to-value ratio is routinely updated for all but the lowest risk loans as part of our ongoing review of our commercial mortgage loan portfolio. For our agricultural mortgage loans, our average loan-to-value ratio was 46% and 44% at December 31, 2018 and 2017, respectively. The values utilized in calculating the agricultural mortgage loan loan-to-value ratio are developed in connection with the ongoing review of the agricultural loan portfolio and are routinely updated.

Mortgage Loan Valuation Allowances. Our valuation allowances are established both on a loan specific basis for those loans considered impaired where a property specific or market specific risk has been identified that could likely result in a future loss, as well as for pools of loans with similar risk characteristics where a property specific or market specific risk has not been identified, but for which we expect to incur a loss. Accordingly, a valuation allowance is provided to absorb these estimated probable credit losses.

The determination of the amount of valuation allowances is based upon our periodic evaluation and assessment of known and inherent risks associated with our loan portfolios. Such evaluations and assessments are based upon several factors, including our experience for loan losses, defaults and loss severity, and loss expectations for loans with similar risk characteristics. These evaluations and assessments are revised as conditions change and new information becomes available, which can cause the valuation allowances to increase or decrease over time as such evaluations are revised. Negative credit migration, including an actual or expected increase in the level of problem loans, will result in an increase in the valuation allowance. Positive credit migration, including an actual or expected decrease in the level of problem loans, will result in a decrease in the valuation allowance.

See Note 8 of the Notes to the Consolidated Financial Statements for information about how valuation allowances are established and monitored and activity in and balances of the valuation allowance as of and for the years ended December 31, 2018, 2017 and 2016.

Real Estate and Real Estate Joint Ventures

Real estate and real estate joint ventures is comprised of wholly-owned real estate and joint ventures with interests in single property income-producing real estate, and to a lesser extent joint ventures with interests in multi-property projects with varying strategies ranging from the development of properties to the operation of income-producing properties, as well as a runoff portfolio. The carrying values of real estate and real estate joint ventures was $9.7 billion and $9.6 billion, or 2.1% and 2.1% of cash and invested assets, at December 31, 2018 and 2017, respectively. The estimated fair value of our real estate investments was $15.4 billion and $14.9 billion at December 31, 2018 and 2017, respectively. The total gross market value of such real estate investments was $20.1 billion and $19.1 billion at December 31, 2018 and 2017, respectively. Gross market value is the total estimated fair value of these investments regardless of encumbering debt.

There were no impairments recognized on real estate and real estate joint ventures for the year ended December 31, 2018, however impairments were $13 million and less than $1 million for the years ended December 31, 2017 and 2016, respectively. Depreciation expense on real estate investments was $92 million, $103 million and $92 million for the years ended December 31, 2018, 2017 and 2016, respectively. Real estate investments were net of accumulated depreciation of $931 million and $898 million at December 31, 2018 and 2017, respectively.

We diversify our real estate investments by both geographic region and property type to reduce risk of concentration.

Geographical diversification: Of our real estate investments, excluding funds, 63% were located in the United States, with the remaining 37% located outside the United States, at December 31, 2018. The carrying value of our real estate investments, excluding funds, located in Japan, California and DC were 33%, 13% and 10%, respectively, of total real estate investments, excluding funds, at December 31, 2018. Real estate funds were 20% of our real estate investments at December 31, 2018. The majority of these funds hold underlying real estate investments that are well diversified across the United States.

Property type diversification: Real estate and real estate joint venture investments by property type are categorized by sector as follows at:

	December 31,			
	2018		2017	
	Carrying Value	% of Total	Carrying Value	% of Total
	(Dollars in millions)			
Office	$ 3,922	40.4%	$ 3,728	38.7%
Real estate funds	1,921	19.8	1,324	13.7
Retail	1,206	12.4	1,114	11.6
Apartment	872	9.0	1,521	15.8
Land	676	7.0	727	7.5
Hotel	555	5.7	475	4.9
Industrial	307	3.2	361	3.8
Agriculture	27	0.3	29	0.3
Other	212	2.2	358	3.7
Total real estate and real estate joint ventures	$ 9,698	100.0%	$ 9,637	100.0%

Other Limited Partnership Interests

Other limited partnership interests are comprised of investments in private funds, including private equity funds and hedge funds. At December 31, 2018 and 2017, the carrying value of other limited partnership interests was $6.6 billion and $5.7 billion, or 1.5% and 1.3% of cash and invested assets, which included $634 million and $643 million of hedge funds, respectively. Cash distributions on these investments are generated from investment gains, operating income from the underlying investments of the funds and liquidation of the underlying investments of the funds.

Other Invested Assets

The following table presents the carrying value of our other invested assets by type at:

	December 31,			
	2018		2017	
	Carrying Value	% of Total	Carrying Value	% of Total
	(Dollars in millions)			
Freestanding derivatives with positive estimated fair values	$ 8,969	49.3%	$ 8,551	49.5%
Tax credit and renewable energy partnerships	2,457	13.5	3,167	18.3
Annuities funding structured settlement claims (1)	1,279	7.0	1,284	7.4
Direct financing leases	1,192	6.5	1,323	7.7
Leveraged leases	1,108	6.1	1,278	7.4
Operating joint ventures	796	4.4	539	3.1
FHLB common stock (2)	793	4.4	—	—
Funds withheld	416	2.3	298	1.7
Other	1,180	6.5	823	4.9
Total	$ 18,190	100%	$ 17,263	100%
Percentage of cash and invested assets	4.0%		3.8%	

(1) See Note 3 of the Notes to the Consolidated Financial Statements.

(2) See Note 8 of the Notes to the Consolidated Financial Statements.

Leveraged lease impairments were $105 million, $79 million and $77 million for the years ended December 31, 2018, 2017 and 2016, respectively.

See Notes 1, 8 and 9 of the Notes to the Consolidated Financial Statements for information regarding freestanding derivatives with positive estimated fair values, tax credit and renewable energy partnerships, leveraged and direct financing leases, annuities funding structured settlement claims, FHLB common stock, operating joint ventures and funds withheld.

Derivatives

Derivative Risks

We are exposed to various risks relating to our ongoing business operations, including interest rate, foreign currency exchange rate, credit and equity market. We use a variety of strategies to manage these risks, including the use of derivatives. See Note 9 of the Notes to the Consolidated Financial Statements for:

- A comprehensive description of the nature of our derivatives, including the strategies for which derivatives are used in managing various risks.
- Information about the gross notional amount, estimated fair value, and primary underlying risk exposure of our derivatives by type of hedge designation, excluding embedded derivatives held at December 31, 2018 and 2017.
- The statement of operations effects of derivatives in net investments in foreign operations, cash flow, fair value, or nonqualifying hedge relationships for the years ended December 31, 2018, 2017 and 2016.

See "Quantitative and Qualitative Disclosures About Market Risk — Management of Market Risk Exposures — Hedging Activities" for more information about our use of derivatives by major hedge program.

Fair Value Hierarchy

See Note 10 of the Notes to the Consolidated Financial Statements for derivatives measured at estimated fair value on a recurring basis and their corresponding fair value hierarchy.

The valuation of Level 3 derivatives involves the use of significant unobservable inputs and generally requires a higher degree of management judgment or estimation than the valuations of Level 1 and Level 2 derivatives. Although Level 3 inputs are unobservable, management believes they are consistent with what other market participants would use when pricing such instruments and are considered appropriate given the circumstances. The use of different inputs or methodologies could have a material effect on the estimated fair value of Level 3 derivatives and could materially affect net income.

Derivatives categorized as Level 3 at December 31, 2018 include: interest rate forwards with maturities which extend beyond the observable portion of the yield curve; interest rate total return swaps with unobservable repurchase rates; foreign currency swaps and forwards with certain unobservable inputs, including the unobservable portion of the yield curve; credit default swaps priced using unobservable credit spreads, or that are priced through independent broker quotations; equity variance swaps with unobservable volatility inputs; and equity index options with unobservable correlation inputs. At December 31, 2018, less than 1% of the estimated fair value of our derivatives was priced through independent broker quotations.

See Note 10 of the Notes to the Consolidated Financial Statements for a rollforward of the fair value measurements for derivatives measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs.

The gain (loss) on Level 3 derivatives primarily relates to foreign currency swaps and forwards that are valued using an unobservable portion of the swap yield curves and interest rate total return swaps with unobservable repurchase rates. Other significant inputs, which are observable, include equity index levels, equity volatility and the swap yield curves. We validate the reasonableness of these inputs by valuing the positions using internal models and comparing the results to broker quotations.

The gain (loss) on Level 3 derivatives, percentage of gain (loss) attributable to observable and unobservable inputs, and the primary drivers of observable gain (loss) are summarized as follows:

	Year Ended December 31, 2018
Gain (loss) recognized in net income (loss)	($161) million
Approximate percentage of gain (loss) attributable to observable inputs	31%
Primary drivers of observable gain (loss)	Increases in interest rates on interest rate total return swaps
Approximate percentage of gain (loss) attributable to unobservable inputs	69%

See "— Summary of Critical Accounting Estimates — Derivatives" for further information on the estimates and assumptions that affect derivatives.

Credit Risk

See Note 9 of the Notes to the Consolidated Financial Statements for information about how we manage credit risk related to derivatives and for the estimated fair value of our net derivative assets and net derivative liabilities after the application of master netting agreements and collateral.

Our policy is not to offset the fair value amounts recognized for derivatives executed with the same counterparty under the same master netting agreement. This policy applies to the recognition of derivatives on the consolidated balance sheets, and does not affect our legal right of offset.

Credit Derivatives

The following table presents the gross notional amount and estimated fair value of credit default swaps at:

	December 31,			
	2018		2017	
Credit Default Swaps	**Gross Notional Amount**	**Estimated Fair Value**	**Gross Notional Amount**	**Estimated Fair Value**
	(In millions)			
Purchased	$ 1,903	$ (14)	$ 2,020	$ (36)
Written	11,391	82	11,375	271
Total	$ 13,294	$ 68	$ 13,395	$ 235

The following table presents the gross gains, gross losses and net gains (losses) recognized in net derivative gains (losses) for credit default swaps as follows:

	Years Ended December 31,					
	2018			2017		
Credit Default Swaps	**Gross Gains**	**Gross Losses**	**Net Gains (Losses)**	**Gross Gains**	**Gross Losses**	**Net Gains (Losses)**
	(In millions)					
Purchased (1)	$ 17	$ (11)	$ 6	$ 5	$ (29)	$ (24)
Written (1)	24	(156)	(132)	152	(7)	145
Total	$ 41	$ (167)	$ (126)	$ 157	$ (36)	$ 121

(1) Gains (losses) do not include earned income (expense) on credit default swaps.

The favorable change in net gains (losses) on purchased credit default swaps of $30 million was due to certain credit spreads on credit default swaps hedging certain bonds widening in the current period as compared to narrowing in the prior period. The unfavorable change in net gains (losses) on written credit default swaps of ($277) million was due to certain credit spreads on certain credit default swaps used as replications widening in the current period as compared to narrowing the prior period.

The maximum amount at risk related to our written credit default swaps is equal to the corresponding gross notional amount. In a replication transaction, we pair an asset on our balance sheet with a written credit default swap to synthetically replicate a corporate bond, a core asset holding of life insurance companies. Replications are entered into in accordance with the guidelines approved by state insurance regulators and the NAIC and are an important tool in managing the overall corporate credit risk within the Company. In order to match our long-dated insurance liabilities, we seek to buy long-dated corporate bonds. In some instances, these may not be readily available in the market, or they may be issued by corporations to which we already have significant corporate credit exposure. For example, by purchasing Treasury bonds (or other high-quality assets) and associating them with written credit default swaps on the desired corporate credit name, we can replicate the desired bond exposures and meet our ALM needs. In addition, given the shorter tenor of the credit default swaps (generally five-year tenors) versus a long-dated corporate bond, we have more flexibility in managing our credit exposures.

Embedded Derivatives

See Note 10 of the Notes to the Consolidated Financial Statements for information about embedded derivatives measured at estimated fair value on a recurring basis and their corresponding fair value hierarchy and a rollforward of the fair value measurements for embedded derivatives measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs.

See Note 9 of the Notes to the Consolidated Financial Statements for information about the nonperformance risk adjustment included in the valuation of guaranteed minimum benefits accounted for as embedded derivatives.

See "— Summary of Critical Accounting Estimates — Derivatives" for further information on the estimates and assumptions that affect embedded derivatives.

Off-Balance Sheet Arrangements

Credit and Committed Facilities

We maintain an unsecured revolving credit facility, as well as committed facilities, with various financial institutions. See "— Liquidity and Capital Resources — The Company — Liquidity and Capital Sources — Global Funding Sources — Credit and Committed Facilities" for further descriptions of such arrangements. For the classification of expenses on such credit and committed facilities and the nature of the associated liability for letters of credit issued and drawdowns on these credit and committed facilities, see Note 12 of the Notes to the Consolidated Financial Statements.

Collateral for Securities Lending, Third-Party Custodian Administered Repurchase Programs and Derivatives

We participate in a securities lending program and third-party custodian administered repurchase programs in the normal course of business for the purpose of enhancing the total return on our investment portfolio. See Notes 1 and 8 of the Notes to the Consolidated Financial Statements for further discussion of our securities lending program and repurchase agreement transactions, the classification of revenues and expenses, and the nature of the secured financing arrangements and associated liabilities.

Securities lending: Periodically we receive non-cash collateral for securities lending from counterparties, which cannot be sold or re-pledged, and which is not reflected on our consolidated balance sheets. The amount of this non-cash collateral was $78 million and $19 million at estimated fair value at December 31, 2018 and 2017, respectively.

Third-party custodian administered repurchase programs: We loan certain of our fixed maturity securities AFS to unaffiliated financial institutions and, in exchange, non-cash collateral is put on deposit by the unaffiliated financial institutions on our behalf with third-party custodians. The estimated fair value of securities loaned in connection with these transactions was $78 million and $182 million at December 31, 2018 and December 31, 2017, respectively. Non-cash collateral on deposit with third-party custodians on our behalf was $84 million and $194 million, at estimated fair value, at December 31, 2018 and December 31, 2017, respectively, which cannot be sold or re-pledged, and which is not reflected on our consolidated balance sheets.

Derivatives: We enter into derivatives to manage various risks relating to our ongoing business operations. We receive non-cash collateral from counterparties for derivatives, which can be sold or re-pledged subject to certain constraints, and which is not reflected on our consolidated balance sheets. The amount of this non-cash collateral was $1.3 billion and $1.1 billion, at estimated fair value, at December 31, 2018 and 2017, respectively. See "— Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Pledged Collateral" and Note 9 of the Notes to the Consolidated Financial Statements for information regarding the earned income on and the gross notional amount, estimated fair value of assets and liabilities and primary underlying risk exposure of our derivatives.

Lease Commitments

As lessee, we have entered into various lease and sublease agreements for office space and equipment. Our commitments under such lease agreements are included within the contractual obligations table. See "— Liquidity and Capital Resources — The Company — Contractual Obligations" and Note 20 of the Notes to the Consolidated Financial Statements.

Guarantees

See "Guarantees" in Note 20 of the Notes to the Consolidated Financial Statements.

Other

We enter into the following additional commitments in the normal course of business for the purpose of enhancing the total return on our investment portfolio: mortgage loan commitments and commitments to fund partnerships, bank credit facilities, bridge loans and private corporate bond investments. See “Net Investment Income” and “Net Investment Gains (Losses)” in Note 8 of the Notes to the Consolidated Financial Statements for information on the investment income, investment expense, and gains and losses from such investments. See also “— Investments — Fixed Maturity Securities AFS and Equity Securities” and “— Investments — Mortgage Loans” for information on our investments in fixed maturity securities AFS and mortgage loans. See “— Investments — Real Estate and Real Estate Joint Ventures” and “— Investments — Other Limited Partnership Interests” for information on our partnership investments.

Other than the commitments disclosed in Note 20 of the Notes to the Consolidated Financial Statements, there are no other material obligations or liabilities arising from the commitments to fund mortgage loans, partnerships, bank credit facilities, bridge loans, and private corporate bond investments. For further information on commitments to fund partnership investments, mortgage loans, bank credit facilities, bridge loans and private corporate bond investments, see “— Liquidity and Capital Resources — The Company — Contractual Obligations.”

Insolvency Assessments

See Note 20 of the Notes to the Consolidated Financial Statements.

Policyholder Liabilities

We establish, and carry as liabilities, actuarially determined amounts that are calculated to meet policy obligations or to provide for future annuity payments. Amounts for actuarial liabilities are computed and reported on the consolidated financial statements in conformity with GAAP. For more details on Policyholder Liabilities, see “— Summary of Critical Accounting Estimates.”

Due to the nature of the underlying risks and the uncertainty associated with the determination of actuarial liabilities, we cannot precisely determine the amounts that will ultimately be paid with respect to these actuarial liabilities, and the ultimate amounts may vary from the estimated amounts, particularly when payments may not occur until well into the future.

We periodically review our estimates of actuarial liabilities for future benefits and compare them with our actual experience. We revise estimates, to the extent permitted or required under GAAP, if we determine that future expected experience differs from assumptions used in the development of actuarial liabilities. We charge or credit changes in our liabilities to expenses in the period the liabilities are established or re-estimated. If the liabilities originally established for future benefit payments prove inadequate, we must increase them. Such an increase could adversely affect our earnings and have a material adverse effect on our business, results of operations and financial condition.

We have experienced, and will likely in the future experience, catastrophe losses and possibly acts of terrorism, as well as turbulent financial markets that may have an adverse impact on our business, results of operations and financial condition. Due to their nature, we cannot predict the incidence, timing, severity or amount of losses from catastrophes and acts of terrorism, but we make broad use of catastrophic and non-catastrophic reinsurance to manage risk from these perils. We also use hedging, reinsurance and other risk management activities to mitigate financial market volatility.

See “Business — Regulation — Insurance Regulation — Policy and Contract Reserve Adequacy Analysis” for information regarding required analyses of the adequacy of statutory reserves of our insurance operations.

Future Policy Benefits

We establish liabilities for amounts payable under insurance policies. See Notes 1 and 4 of the Notes to the Consolidated Financial Statements, “— Industry Trends — Impact of a Sustained Low Interest Rate Environment — Low Interest Rate Scenario” and “— Variable Annuity Guarantees.” A discussion of future policy benefits by segment (as well as Corporate & Other) follows.

U.S.

Amounts payable under insurance policies for this segment are comprised of group insurance and annuities, as well as property and casualty policies. For group insurance, future policyholder benefits are comprised mainly of liabilities for disabled lives under disability waiver of premium policy provisions, liabilities for survivor income benefit insurance, active life policies and premium stabilization and other contingency liabilities held under life insurance contracts. For group annuity contracts, future policyholder benefits are primarily related to payout annuities, including pension risk transfers, structured settlement annuities and institutional income annuities. There is no interest rate crediting flexibility on these liabilities. As a result, a sustained low interest rate environment could negatively impact earnings; however, we mitigate our risks by applying various ALM strategies, including the use of various interest rate derivative positions. The components of future policy benefits related to our property and casualty policies are liabilities for unpaid claims, estimated based upon assumptions such as rates of claim frequencies, levels of severities, inflation, judicial trends, legislative changes or regulatory decisions. Assumptions are based upon our historical experience and analysis of historical development patterns of the relationship of loss adjustment expenses to losses for each line of business, and we consider the effects of current developments, anticipated trends and risk management programs, reduced for anticipated salvage and subrogation.

Asia

Future policy benefits for this segment are held primarily for traditional life, endowment, annuity and accident & health contracts. They are also held for total return pass-through provisions included in certain universal life and savings products. They include certain liabilities for variable annuity and variable life guarantees of minimum death benefits, and longevity guarantees. Factors impacting these liabilities include sustained periods of lower yields than rates established at policy issuance, lower than expected asset reinvestment rates, market volatility, actual lapses resulting in lower than expected income, and actual mortality or morbidity resulting in higher than expected benefit payments. We mitigate our risks by applying various ALM strategies.

Latin America

Future policy benefits for this segment are held primarily for immediate annuities in Chile, Argentina and Mexico and traditional life contracts mainly in Mexico, Brazil and Colombia. There are also liabilities held for total return pass-through provisions included in certain universal life and savings products in Mexico. Factors impacting these liabilities include sustained periods of lower yields than rates established at policy issuance, lower than expected asset reinvestment rates, and mortality and lapses different than expected. We mitigate our risks by applying various ALM strategies.

EMEA

Future policy benefits for this segment include unearned premium reserves for group life and credit insurance contracts. Future policy benefits are also held for traditional life, endowment and annuity contracts with significant mortality risk and accident & health contracts. Factors impacting these liabilities include lower than expected asset reinvestment rates, market volatility, actual lapses resulting in lower than expected income, and actual mortality or morbidity resulting in higher than expected benefit payments. We mitigate our risks by having premiums which are adjustable or cancellable in some cases, and by applying various ALM strategies.

MetLife Holdings

Future policy benefits for the life business are comprised mainly of liabilities for traditional life insurance contracts. In order to manage risk, we have often reinsured a portion of the mortality risk on life insurance policies. We routinely evaluate our reinsurance programs, which may result in increases or decreases to existing coverage. We have entered into various interest rate derivative positions to mitigate the risk that investment of premiums received and reinvestment of maturing assets over the life of the policy will be at rates below those assumed in the original pricing of these contracts. For the annuities business, future policy benefits are comprised mainly of liabilities for life-contingent income annuities and liabilities for the variable annuity guaranteed minimum benefits that are accounted for as insurance. Other future policyholder benefits are comprised mainly of liabilities for disabled lives under disability waiver of premium policy provisions, and active life policies. In addition, for our other products, future policyholder benefits related to the reinsurance of our former Japan joint venture are comprised of liabilities for the variable annuity guaranteed minimum benefits that are accounted for as insurance.

Corporate & Other

Future policy benefits primarily include liabilities for other reinsurance business.

Policyholder Account Balances

Policyholder account balances are generally equal to the account value, which includes accrued interest credited, but excludes the impact of any applicable charge that may be incurred upon surrender. See "— Industry Trends — Impact of a Sustained Low Interest Rate Environment — Low Interest Rate Scenario" and "— Variable Annuity Guarantees." See also Notes 1 and 4 of the Notes to the Consolidated Financial Statements for additional information. A discussion of policyholder account balances by segment follows.

U.S.

Policyholder account balances in this segment are comprised of funding agreements, retained asset accounts, universal life policies, the fixed account of variable life insurance policies and specialized life insurance products for benefit programs.

Group Benefits

Policyholder account balances in this business are held for retained asset accounts, universal life policies, the fixed account of variable life insurance policies and specialized life insurance products for benefit programs. Policyholder account balances are credited interest at a rate we determine, which is influenced by current market rates. A sustained low interest rate environment could adversely impact liabilities and earnings as a result of the minimum credited rate guarantees present in most of these policyholder account balances. We have various interest rate derivative positions to partially mitigate the risks associated with such a scenario.

The table below presents the breakdown of account value subject to minimum guaranteed crediting rates for Group Benefits:

	December 31, 2018	
Guaranteed Minimum Crediting Rate	**Account Value**	**Account Value at Guarantee**
	(In millions)	
Greater than 0% but less than 2%	$ 4,776	$ 4,655
Equal to or greater than 2% but less than 4%	$ 1,766	$ 1,766
Equal to or greater than 4%	$ 742	$ 713

Retirement and Income Solutions

Policyholder account balances in this business are primarily comprised of funding agreements. Interest crediting rates vary by type of contract, and can be fixed or variable. Variable interest crediting rates are generally tied to an external index, most commonly (1-month or 3-month) LIBOR. We are exposed to interest rate risks, as well as foreign currency exchange rate risk, when guaranteeing payment of interest and return of principal at the contractual maturity date. We may invest in floating rate assets or enter into receive-floating interest rate swaps, also tied to external indices, as well as interest rate caps, to mitigate the impact of changes in market interest rates. We also mitigate our risks by applying various ALM strategies and seek to hedge all foreign currency exchange rate risk through the use of foreign currency hedges, including cross currency swaps.

The table below presents the breakdown of account value subject to minimum guaranteed crediting rates for RIS:

	December 31, 2018	
Guaranteed Minimum Crediting Rate	**Account Value**	**Account Value at Guarantee**
	(In millions)	
Greater than 0% but less than 2%	$ 143	$ —
Equal to or greater than 2% but less than 4%	$ 1,096	$ 121
Equal to or greater than 4%	$ 4,624	$ 4,621

Asia

Policyholder account balances in this segment are held largely for fixed income retirement and savings plans, fixed deferred annuities, interest sensitive whole life products, universal life and, to a lesser degree, liability amounts for Unit-linked investments that do not meet the GAAP definition of separate accounts. Also included are certain liabilities for retirement and savings products sold in certain countries in Asia that generally are sold with minimum credited rate guarantees. Liabilities for guarantees on certain variable annuities in Asia are accounted for as embedded derivatives and recorded at estimated fair value and are also included within policyholder account balances. A sustained low interest rate environment could adversely impact liabilities and earnings as a result of the minimum credited rate guarantees present in most of these policyholder account balances. We mitigate our risks by applying various ALM strategies and with reinsurance. Liabilities for Unit-linked investments are impacted by changes in the fair value of the associated underlying investments, as the return on assets is generally passed directly to the policyholder.

The table below presents the breakdown of account value subject to minimum guaranteed crediting rates for Asia:

	December 31, 2018	
Guaranteed Minimum Crediting Rate	**Account Value**	**Account Value at Guarantee**
	(In millions)	
Annuities		
Greater than 0% but less than 2%	$ 25,586	$ 1,926
Equal to or greater than 2% but less than 4%	$ 1,205	$ 395
Equal to or greater than 4%	$ 1	$ 1
Life & Other		
Greater than 0% but less than 2%	$ 10,268	$ 9,961
Equal to or greater than 2% but less than 4%	$ 24,573	$ 9,174
Equal to or greater than 4%	$ 279	$ 279

Latin America

Policyholder account balances in this segment are held largely for investment-type products and universal life products in Mexico and Chile, and deferred annuities in Brazil. Some of the deferred annuities in Brazil are Unit-linked investments that do not meet the GAAP definition of separate accounts. The rest of the deferred annuities have minimum credited rate guarantees, which could adversely impact liabilities and earnings in a sustained low interest rate environment. Liabilities for Unit-linked investments are impacted by changes in the fair value of the associated investments, as the return on assets is generally passed directly to the policyholder.

EMEA

Policyholder account balances in this segment are held mostly for universal life, deferred annuity, pension products, and Unit-linked investments that do not meet the GAAP definition of separate accounts. They are also held for endowment products without significant mortality risk. A sustained low interest rate environment could adversely impact liabilities and earnings as a result of the minimum credited rate guarantees present in many of these policyholder account balances. We mitigate our risks by applying various ALM strategies. Liabilities for Unit-linked investments are impacted by changes in the fair value of the associated investments, as the return on assets is generally passed directly to the policyholder.

MetLife Holdings

Life policyholder account balances are held for retained asset accounts, universal life policies, the fixed account of variable life insurance policies, and funding agreements. For annuities, policyholder account balances are held for fixed deferred annuities, the fixed account portion of variable annuities, non-life contingent income annuities, and embedded derivatives related to variable annuity guarantees. Interest is credited to the policyholder's account at interest rates we determine which are influenced by current market rates, subject to specified minimums. A sustained low interest rate environment could adversely impact liabilities and earnings as a result of the minimum credited rate guarantees present in most of these policyholder account balances. We have various interest rate derivative positions to partially mitigate the risks associated with such a scenario. Additionally, for our other products, policyholder account balances are held for variable annuity guarantees assumed from a former operating joint venture in Japan that are accounted for as embedded derivatives.

The table below presents the breakdown of account value subject to minimum guaranteed crediting rates for the MetLife Holdings segment:

	December 31, 2018	
Guaranteed Minimum Crediting Rate	Account Value	Account Value at Guarantee
	(In millions)	
Greater than 0% but less than 2%	$ 1,510	$ 1,430
Equal to or greater than 2% but less than 4%	$ 18,733	$ 16,064
Equal to or greater than 4%	$ 8,098	$ 5,539

Variable Annuity Guarantees

We issue, directly and through assumed business, certain variable annuity products with guaranteed minimum benefits that provide the policyholder a minimum return based on their initial deposit (i.e., the benefit base) less withdrawals. In some cases, the benefit base may be increased by additional deposits, bonus amounts, accruals or optional market value resets. See Notes 1 and 4 of the Notes to the Consolidated Financial Statements for additional information.

Certain guarantees, including portions thereof, have insurance liabilities established that are included in future policy benefits. Guarantees accounted for in this manner include GMDBs, the life-contingent portion of GMWBs, elective GMIB annuitizations, and the life contingent portion of GMIBs that require annuitization when the account balance goes to zero. These liabilities are accrued over the life of the contract in proportion to actual and future expected policy assessments based on the level of guaranteed minimum benefits generated using multiple scenarios of separate account returns. The scenarios are based on best estimate assumptions consistent with those used to amortize DAC. When current estimates of future benefits exceed those previously projected or when current estimates of future assessments are lower than those previously projected, liabilities will increase, resulting in a current period charge to net income. The opposite result occurs when the current estimates of future benefits are lower than those previously projected or when current estimates of future assessments exceed those previously projected. At the end of each reporting period, we update the actual amount of business remaining in-force, which impacts expected future assessments and the projection of estimated future benefits resulting in a current period charge or increase to earnings.

Certain guarantees, including portions thereof, accounted for as embedded derivatives, are recorded at estimated fair value and included in policyholder account balances. Guarantees accounted for as embedded derivatives include GMABs, the non-life contingent portion of GMWBs and certain non-life contingent portions of GMIBs. The estimated fair values of guarantees accounted for as embedded derivatives are determined based on the present value of projected future benefits minus the present value of projected future fees. The projections of future benefits and future fees require capital market and actuarial assumptions including expectations concerning policyholder behavior. A risk neutral valuation methodology is used to project the cash flows from the guarantees under multiple capital market scenarios to determine an economic liability. The reported estimated fair value is then determined by taking the present value of these risk-free generated cash flows using a discount rate that incorporates a spread over the risk-free rate to reflect our nonperformance risk and adding a risk margin. For more information on the determination of estimated fair value, see Note 10 of the Notes to the Consolidated Financial Statements.

The table below presents the carrying value for guarantees at:

	Future Policy Benefits		Policyholder Account Balances	
	December 31,		December 31,	
	2018	2017	2018	2017
	(In millions)			
Asia				
GMDB	$ 3	$ 38	$ —	$ —
GMAB	—	—	34	19
GMWB	81	92	143	182
EMEA				
GMDB	7	1	—	—
GMAB	—	—	24	15
GMWB	70	42	(82)	(90)
MetLife Holdings				
GMDB	289	304	—	—
GMIB	743	581	106	(125)
GMAB	—	—	5	—
GMWB	129	183	563	322
Total	$ 1,322	$ 1,241	$ 793	$ 323

The carrying amounts for guarantees included in policyholder account balances above include nonperformance risk adjustments of $263 million and $130 million at December 31, 2018 and 2017, respectively. These nonperformance risk adjustments represent the impact of including a credit spread when discounting the underlying risk neutral cash flows to determine the estimated fair values. The nonperformance risk adjustment does not have an economic impact on us as it cannot be monetized given the nature of these policyholder liabilities. The change in valuation arising from the nonperformance risk adjustment is not hedged.

The carrying values of these guarantees can change significantly during periods of sizable and sustained shifts in equity market performance, equity volatility, interest rates or foreign currency exchange rates. Carrying values are also impacted by our assumptions around mortality, separate account returns and policyholder behavior, including lapse rates.

As discussed below, we use a combination of product design, hedging strategies, reinsurance, and other risk management actions to mitigate the risks related to these benefits. Within each type of guarantee, there is a range of product offerings reflecting the changing nature of these products over time. Changes in product features and terms are in part driven by customer demand but, more importantly, reflect our risk management practices of continuously evaluating the guaranteed benefits and their associated asset-liability matching. We continue to diversify the concentration of income benefits in our portfolio by focusing on withdrawal benefits, variable annuities without living benefits and index-linked annuities.

The sections below provide further detail by total account value for certain of our most popular guarantees. Total account values include amounts not reported on the consolidated balance sheets from assumed business, Unit-linked investments that do not qualify for presentation as separate account assets, and amounts included in our general account. The total account values and the net amounts at risk include direct and assumed business, but exclude offsets from hedging or ceded reinsurance, if any.

GMDBs

We offer a range of GMDBs to our contractholders. The table below presents GMDBs, by benefit type, at December 31, 2018:

	Total Account Value (1)	
	Asia & EMEA	MetLife Holdings
	(In millions)	
Return of premium or five to seven year step-up	$ 6,180	$ 46,207
Annual step-up	—	3,074
Roll-up and step-up combination	—	5,500
Total	$ 6,180	$ 54,781

(1) Total account value excludes $230 million for contracts with no GMDBs. The Company's annuity contracts with guarantees may offer more than one type of guarantee in each contract. Therefore, the amounts listed for GMDBs and for living benefit guarantees are not mutually exclusive.

Based on total account value, less than 19% of our GMDBs included enhanced death benefits such as the annual step-up or roll-up and step-up combination products. We expect the above GMDB risk profile to be relatively consistent for the foreseeable future.

Living Benefit Guarantees

The table below presents our living benefit guarantees based on total account values at December 31, 2018:

	Total Account Value (1)	
	Asia & EMEA	MetLife Holdings
	(In millions)	
GMIB	$ —	$ 20,692
GMWB - non-life contingent (2)	1,954	2,608
GMWB - life-contingent	2,961	9,373
GMAB	988	368
Total	$ 5,903	$ 33,041

(1) Total account value excludes $22.0 billion for contracts with no living benefit guarantees. The Company's annuity contracts with guarantees may offer more than one type of guarantee in each contract. Therefore, the amounts listed for GMDBs and for living benefit guarantee amounts are not mutually exclusive.

(2) The Asia and EMEA segments include the non-life contingent portion of the GMWB total account value of $936 million with a guarantee at annuitization.

In terms of total account value, GMIBs are our most significant living benefit guarantee. Our primary risk management strategy for our GMIB products is our derivatives hedging program as discussed below. Additionally, we have engaged in certain reinsurance agreements covering some of our GMIB business. As part of our overall risk management approach for living benefit guarantees, we continually monitor the reinsurance markets for the right opportunity to purchase additional coverage for our GMIB business. We stopped selling GMIBs in February 2016.

The table below presents our GMIB associated total account values, by their guaranteed payout basis, at December 31, 2018:

	Total Account Value
	(In millions)
7-year setback, 2.5% interest rate	$ 5,508
7-year setback, 1.5% interest rate	899
10-year setback, 1.5% interest rate	4,384
10-year mortality projection, 10-year setback, 1.0% interest rate	8,389
10-year mortality projection, 10-year setback, 0.5% interest rate	1,512
	$ 20,692

The annuitization interest rates on GMIBs have been decreased from 2.5% to 0.5% over time, partially in response to the low interest rate environment, accompanied by an increase in the setback period from seven years to 10 years and the introduction of a 10-year mortality projection.

Additionally, 42% of the $20.7 billion of GMIB total account value has been invested in managed volatility funds as of December 31, 2018. These funds seek to manage volatility by adjusting the fund holdings within certain guidelines based on capital market movements. Such activity reduces the overall risk of the underlying funds while maintaining their growth opportunities. These risk mitigation techniques reduce or eliminate the need for us to manage the funds' volatility through hedging or reinsurance.

Our GMIB products typically have a waiting period of 10 years to be eligible for annuitization. As of December 31, 2018, only 19% of our contracts with GMIBs were eligible for annuitization. The remaining contracts are not eligible for annuitization for an average of five years.

Once eligible for annuitization, contractholders would be expected to annuitize only if their contracts were in-the-money. We calculate in-the-moneyness with respect to GMIBs consistent with net amount at risk as discussed in Note 4 of the Notes to the Consolidated Financial Statements, by comparing the contractholders' income benefits based on total account values and current annuity rates versus the guaranteed income benefits. The net amount at risk was $483 million at December 31, 2018, of which $418 million was related to GMIBs. For those contracts with GMIB, the table below presents details of contracts that are in-the-money and out-of-the-money at December 31, 2018:

	In-the-Moneyness	Total Account Value	% of Total
		(In millions)	
In-the-money	30% +	$ 382	2%
	20% to 30%	302	2%
	10% to 20%	546	3%
	0% to 10%	1,184	6%
		2,414	
Out-of-the-money	-10% to 0%	2,321	11%
	-20% to 10%	3,077	15%
	-20% +	12,880	62%
		18,278	
Total GMIBs		$ 20,692	

Derivatives Hedging Variable Annuity Guarantees

Our risk mitigating hedging strategy uses various OTC and exchange traded derivatives. The table below presents the gross notional amount, estimated fair value and primary underlying risk exposure of the derivatives hedging our variable annuity guarantees:

		December 31,					
		2018			2017		
		Gross Notional	Estimated Fair Value		Gross Notional	Estimated Fair Value	
Primary Underlying Risk Exposure	Instrument Type	Amount	Assets	Liabilities	Amount	Assets	Liabilities
		(In millions)					
Interest rate	Interest rate swaps	$ 8,209	$ 89	$ 3	$ 16,080	$ 433	$ 22
	Interest rate futures	1,559	1	3	3,060	1	4
	Interest rate options	838	163	—	10,173	486	11
Foreign currency exchange rate	Foreign currency forwards	1,815	44	9	2,288	5	36
Equity market	Equity futures	2,730	11	77	3,781	17	4
	Equity index options	9,933	408	546	9,546	383	690
	Equity variance swaps	2,269	40	87	4,661	54	199
	Equity total return swaps	929	91	—	1,117	—	41
	Total	$ 28,282	$ 847	$ 725	$ 50,706	$ 1,379	$ 1,007

The change in estimated fair values of our derivatives is recorded in policyholder benefits and claims if such derivatives are hedging guarantees included in future policy benefits, and in net derivative gains (losses) if such derivatives are hedging guarantees included in policyholder account balances.

Our hedging strategy involves the significant use of static longer-term derivative instruments to avoid the need to execute transactions during periods of market disruption or higher volatility. We continually monitor the capital markets for opportunities to adjust our liability coverage, as appropriate. Futures are also used to dynamically adjust the daily coverage levels as markets and liability exposures fluctuate.

We remain liable for the guaranteed benefits in the event that reinsurers or derivative counterparties are unable or unwilling to pay. Certain of our reinsurance agreements and substantially all derivative positions are collateralized and derivatives positions are subject to master netting agreements, both of which significantly reduce the exposure to counterparty risk. In addition, we are subject to the risk that hedging and other risk management actions prove ineffective or that unanticipated policyholder behavior or mortality, combined with adverse market events, produces economic losses beyond the scope of the risk management techniques employed.

Liquidity and Capital Resources

Overview

Our business and results of operations are materially affected by conditions in the global capital markets and the economy generally. Stressed conditions, volatility and disruptions in global capital markets, particular markets, or financial asset classes can have an adverse effect on us, in part because we have a large investment portfolio and our insurance liabilities and derivatives are sensitive to changing market factors. Changing conditions in the global capital markets and the economy may affect our financing costs and market interest for our debt or equity securities. For further information regarding market factors that could affect our ability to meet liquidity and capital needs, see "— Industry Trends" and "— Investments — Current Environment."

Liquidity Management

Based upon the strength of our franchise, diversification of our businesses, strong financial fundamentals and the substantial funding sources available to us as described herein, we continue to believe we have access to ample liquidity to meet business requirements under current market conditions and reasonably possible stress scenarios. We continuously monitor and adjust our liquidity and capital plans for MetLife, Inc. and its subsidiaries in light of market conditions, as well as changing needs and opportunities.

Short-term Liquidity

We maintain a substantial short-term liquidity position, which was $11.1 billion and $10.0 billion at December 31, 2018 and 2017, respectively. Short-term liquidity includes cash and cash equivalents and short-term investments, excluding assets that are pledged or otherwise committed, including amounts received in connection with securities lending, repurchase agreements, derivatives, and secured borrowings, as well as amounts held in the closed block.

Liquid Assets

An integral part of our liquidity management includes managing our level of liquid assets, which was $202.7 billion and $209.1 billion at December 31, 2018 and 2017, respectively. Liquid assets include cash and cash equivalents, short-term investments and publicly-traded securities, excluding assets that are pledged or otherwise committed. Assets pledged or otherwise committed include amounts received in connection with securities lending, repurchase agreements, derivatives, regulatory deposits, the collateral financing arrangement, funding agreements and secured borrowings, as well as amounts held in the closed block.

Capital Management

We have established several senior management committees as part of our capital management process. These committees, including the Capital Management Committee and the Enterprise Risk Committee ("ERC"), regularly review actual and projected capital levels (under a variety of scenarios including stress scenarios) and our annual capital plan in accordance with our capital policy. The Capital Management Committee is comprised of members of senior management, including MetLife, Inc.'s Chief Financial Officer ("CFO"), Treasurer, and Chief Risk Officer ("CRO"). The ERC is also comprised of members of senior management, including MetLife, Inc.'s CFO, CRO and Chief Investment Officer.

Our Board of Directors and senior management are directly involved in the development and maintenance of our capital policy. The capital policy sets forth, among other things, minimum and target capital levels and the governance of the capital management process. All capital actions, including proposed changes to the annual capital plan, capital targets or capital policy, are reviewed by the Finance and Risk Committee of the Board of Directors prior to obtaining full Board of Directors approval. The Board of Directors approves the capital policy and the annual capital plan and authorizes capital actions, as required.

See "Risk Factors — Capital Risks — Legal and Regulatory Restrictions May Prevent Us from Paying Dividends and Repurchasing Our Stock at the Level We Wish" and Note 15 of the Notes to the Consolidated Financial Statements for information regarding restrictions on payment of dividends and stock repurchases. See also "— The Company — Liquidity and Capital Uses — Common Stock Repurchases" for information regarding MetLife, Inc.'s common stock repurchase authorizations.

The Company

Liquidity

Liquidity refers to the ability to generate adequate amounts of cash to meet our needs. We determine our liquidity needs based on a rolling 12-month forecast by portfolio of invested assets which we monitor daily. We adjust the asset mix and asset maturities based on this rolling 12-month forecast. To support this forecast, we conduct cash flow and stress testing, which include various scenarios of the potential risk of early contractholder and policyholder withdrawal. We include provisions limiting withdrawal rights on many of our products, including general account pension products sold to employee benefit plan sponsors. Certain of these provisions prevent the customer from making withdrawals prior to the maturity date of the product. In the event of significant cash requirements beyond anticipated liquidity needs, we have various alternatives available depending on market conditions and the amount and timing of the liquidity need. These available alternatives include cash flows from operations, sales of liquid assets, global funding sources including commercial paper and various credit and committed facilities.

Under certain stressful market and economic conditions, our access to liquidity may deteriorate, or the cost to access liquidity may increase. If we require significant amounts of cash on short notice in excess of anticipated cash requirements or if we are required to post or return cash collateral in connection with derivatives or our securities lending program, we may have difficulty selling investments in a timely manner, be forced to sell them for less than we otherwise would have been able to realize, or both. In addition, in the event of such forced sale, for securities in an unrealized loss position, realized losses would be incurred on securities sold and impairments would be incurred, if there is a need to sell securities prior to recovery, which may negatively impact our financial condition. See "Risk Factors — Investment Risks — We May Have Difficulty Selling Certain Holdings in Our Investment Portfolio or in Our Securities Lending Program in a Timely Manner and Realizing Full Value."

All general account assets within a particular legal entity — other than those which may have been pledged to a specific purpose — are generally available to fund obligations of the general account of that legal entity.

Capital

We manage our capital position to maintain our financial strength and credit ratings. Our capital position is supported by our ability to generate strong cash flows within our operating companies and borrow funds at competitive rates, as well as by our demonstrated ability to raise additional capital to meet operating and growth needs despite adverse market and economic conditions.

Rating Agencies

Rating agencies assign insurer financial strength ratings to MetLife, Inc.'s U.S. life insurance subsidiaries and credit ratings to MetLife, Inc. and certain of its subsidiaries. Financial strength ratings represent the opinion of rating agencies regarding the ability of an insurance company to pay obligations under insurance policies and contracts in accordance with their terms. Credit ratings indicate the rating agency's opinion regarding a debt issuer's ability to meet the terms of debt obligations in a timely manner. They are important factors in our overall funding profile and ability to access certain types of liquidity. The level and composition of regulatory capital at the subsidiary level and our equity capital are among the many factors considered in determining our insurer financial strength ratings and credit ratings. Each agency has its own capital adequacy evaluation methodology, and assessments are generally based on a combination of factors. In addition to heightening the level of scrutiny that they apply to insurance companies, rating agencies have increased and may continue to increase the frequency and scope of their credit reviews, may request additional information from the companies that they rate and may adjust upward the capital and other requirements employed in the rating agency models for maintenance of certain ratings levels.

Downgrades in our insurer financial strength ratings could have a material adverse effect on our financial condition and results of operations in many ways. See "Risk Factors — Economic Environment and Capital Markets Risks — A Downgrade or a Potential Downgrade in Our Financial Strength or Credit Ratings Could Result in a Loss of Business and Materially Adversely Affect Our Financial Condition and Results of Operations."

A downgrade in the credit ratings or insurer financial strength ratings of MetLife, Inc. or its subsidiaries would likely impact us in the following ways, including:

- impact our ability to generate cash flows from the sale of funding agreements and other capital market products offered by our RIS business;
- impact the cost and availability of financing for MetLife, Inc. and its subsidiaries; and
- result in additional collateral requirements or other required payments under certain agreements, which are eligible to be satisfied in cash or by posting investments held by the subsidiaries subject to the agreements. See "— Liquidity and Capital Uses — Pledged Collateral."

Statutory Capital and Dividends

Our U.S. insurance subsidiaries have statutory surplus well above levels to meet current regulatory requirements.

RBC requirements are used as minimum capital requirements by the NAIC and the state insurance departments to identify companies that merit regulatory action. RBC is based on a formula calculated by applying factors to various asset, premium, claim, expense and statutory reserve items. The formula takes into account the risk characteristics of the insurer, including asset risk, insurance risk, interest rate risk, market risk and business risk and is calculated on an annual basis. The formula is used as an early warning regulatory tool to identify possible inadequately capitalized insurers for purposes of initiating regulatory action, and not as a means to rank insurers generally. These rules apply to most of our U.S. insurance subsidiaries. State insurance laws provide insurance regulators the authority to require various actions by, or take various actions against, insurers whose total adjusted capital does not meet or exceed certain RBC levels. As of the date of the most recent annual statutory financial statements filed with insurance regulators, the total adjusted capital of each of these subsidiaries subject to these requirements was in excess of each of those RBC levels.

As a Delaware corporation, American Life is subject to Delaware law; however, because it does not conduct insurance business in Delaware or any other U.S. state, it is exempt from RBC requirements under Delaware law. American Life's operations are also regulated by applicable authorities of the jurisdictions in which it operates and is subject to capital and solvency requirements in those jurisdictions.

The amount of dividends that our insurance subsidiaries can pay to MetLife, Inc. or to other parent entities is constrained by the amount of surplus we hold to maintain our ratings and provides an additional margin for risk protection and investment in our businesses. We proactively take actions to maintain capital consistent with these ratings objectives, which may include adjusting dividend amounts and deploying financial resources from internal or external sources of capital. Certain of these activities may require regulatory approval. Furthermore, the payment of dividends and other distributions to MetLife, Inc. and other parent entities by their respective insurance subsidiaries is governed by insurance laws and regulations. See "Business — Regulation — Insurance Regulation," "— MetLife, Inc. — Liquidity and Capital Sources — Dividends from Subsidiaries" and Note 15 of the Notes to the Consolidated Financial Statements.

Affiliated Captive Reinsurance Transactions

MLIC cedes specific policy classes, including term and universal life insurance, participating whole life insurance, LTD insurance, group life insurance and other business to various wholly-owned captive reinsurers. The reinsurance activities among these affiliated companies are eliminated within our consolidated results of operations. The statutory reserves of such affiliated captive reinsurers are supported by a combination of funds withheld assets, investment assets and letters of credit issued by unaffiliated financial institutions. MetLife, Inc. has entered into various support agreements in connection with the activities of these captive reinsurers. See "— MetLife, Inc. — Liquidity and Capital Uses — Support Agreements" for further details on certain of these guarantees. MLIC has entered into reinsurance agreements with affiliated captive reinsurers for risk and capital management purposes, as well as to manage statutory reserve requirements related to universal life and term life insurance policies and other business.

The NYDFS continues to have a moratorium on new reserve financing transactions involving captive insurers. We are not aware of any states other than New York and California implementing such a moratorium. While such a moratorium would not impact our existing reinsurance agreements with captive reinsurers, a moratorium placed on the use of captives for new reserve financing transactions could impact our ability to write certain products and/or impact our RBC ratios and ability to deploy excess capital in the future. This could result in our need to increase prices, modify product features or limit the availability of those products to our customers. While this affects insurers across the industry, it could adversely impact our competitive position and our results of operations in the future. We continue to evaluate product modifications, pricing structure and alternative means of managing risks, capital and statutory reserves and we expect the discontinued use of captive reinsurance on new reserve financing transactions would not have a material impact on our future consolidated financial results. See Note 6 of the Notes to the Consolidated Financial Statements for further information on our reinsurance activities.

Summary of the Company's Primary Sources and Uses of Liquidity and Capital

Our primary sources and uses of liquidity and capital are summarized as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Sources:			
Operating activities, net	$ 11,738	$ 12,283	$ 14,774
Net change in policyholder account balances	4,266	6,131	4,925
Net change in payables for collateral under securities loaned and other transactions	—	903	—
Cash received for other transactions with tenors greater than three months	200	—	—
Long-term debt issued	24	3,657	—
Financing element on certain derivative instruments and other derivative related transactions, net	144	—	—
Preferred stock issued, net of issuance costs	1,274	—	—
Other, net	—	118	139
Effect of change in foreign currency exchange rates on cash and cash equivalents	—	323	—
Total sources	17,646	23,415	19,838
Uses:			
Investing activities, net	5,634	16,876	5,850
Net change in payables for collateral under securities loaned and other transactions	821	—	3,636
Long-term debt repaid	1,871	1,073	1,279
Collateral financing arrangements repaid	61	2,951	68
Distribution of Brighthouse	—	2,793	—
Financing element on certain derivative instruments and other derivative related transactions, net	—	151	1,367
Treasury stock acquired in connection with share repurchases	3,992	2,927	372
Dividends on preferred stock	141	103	103
Dividends on common stock	1,678	1,717	1,736
Other, net	145	—	—
Effect of change in foreign currency exchange rates on cash and cash equivalents	183	—	302
Total uses	14,526	28,591	14,713
Net increase (decrease) in cash and cash equivalents	$ 3,120	$ (5,176)	$ 5,125

Cash Flows from Operations

The principal cash inflows from our insurance activities come from insurance premiums, net investment income, annuity considerations and deposit funds. The principal cash outflows are the result of various life insurance, property and casualty, annuity and pension products, operating expenses and income tax, as well as interest expense. A primary liquidity concern with respect to these cash flows is the risk of early contractholder and policyholder withdrawal. The cash flows from discontinued operations are not separately classified, but generally arise from the same activities described above.

Cash Flows from Investments

The principal cash inflows from our investment activities come from repayments of principal, proceeds from maturities and sales of investments and settlements of freestanding derivatives. The principal cash outflows relate to purchases of investments, issuances of policy loans and settlements of freestanding derivatives. Additional cash outflows relate to purchases of businesses. We typically have a net cash outflow from investing activities because cash inflows from insurance operations are reinvested in accordance with our ALM discipline to fund insurance liabilities. We closely monitor and manage these risks through our comprehensive investment risk management process. The primary liquidity concerns with respect to these cash flows are the risk of default by debtors and market disruption. The cash flows from discontinued operations are not separately classified, but generally arise from the same activities described above.

Cash Flows from Financing

The principal cash inflows from our financing activities come from issuances of debt and other securities, deposits of funds associated with policyholder account balances and lending of securities. The principal cash outflows come from repayments of debt and collateral financing arrangements, payments of dividends on and repurchases of MetLife, Inc.'s securities, withdrawals associated with policyholder account balances, cash disposed of in the distribution of Brighthouse and the return of securities on loan. The primary liquidity concerns with respect to these cash flows are market disruption and the risk of early contractholder and policyholder withdrawal. The cash flows from discontinued operations are not separately classified, but generally arise from the same activities described above.

Liquidity and Capital Sources

In addition to the general description of liquidity and capital sources in "— Summary of the Company's Primary Sources and Uses of Liquidity and Capital," the Company's primary sources of liquidity and capital are set forth below. See Note 3 of the Notes to the Consolidated Financial Statements for information regarding financing transactions related to the Separation.

Global Funding Sources

Liquidity is provided by a variety of global funding sources, including funding agreements, credit and committed facilities and commercial paper. Capital is provided by a variety of global funding sources, including short-term and long-term debt, the collateral financing arrangement, junior subordinated debt securities, preferred securities, equity securities and equity-linked securities. MetLife, Inc. maintains a shelf registration statement with the SEC that permits the issuance of public debt, equity and hybrid securities. As a "Well-Known Seasoned Issuer" under SEC rules, MetLife, Inc.'s shelf registration statement provides for automatic effectiveness upon filing and has no stated issuance capacity. The diversity of our global funding sources enhances our funding flexibility, limits dependence on any one market or source of funds and generally lowers the cost of funds. Our primary global funding sources include:

Preferred Stock

In June 2018, MetLife, Inc. issued 32,200 shares of 5.625% Non-Cumulative Preferred Stock, Series E (the "Series E preferred stock") with a $0.01 par value per share and a liquidation preference of $25,000 per share, for aggregate net proceeds of $780 million.

In March 2018, MetLife, Inc. issued 500,000 shares of 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D (the "Series D preferred stock") with a $0.01 par value per share and a liquidation preference of $1,000 per share, for aggregate net proceeds of $494 million.

See Note 15 of the Notes to the Consolidated Financial Statements.

Common Stock

See Note 15 of the Notes to the Consolidated Financial Statements.

Commercial Paper, Reported in Short-term Debt

MetLife, Inc. and MetLife Funding each have a commercial paper program that is supported by our unsecured revolving credit facility (see "— Credit and Committed Facilities"). MetLife Funding raises cash from its commercial paper program and uses the proceeds to extend loans through MetLife Credit Corp., another subsidiary of MLIC, to affiliates in order to enhance the financial flexibility and liquidity of these companies.

Federal Home Loan Bank Funding Agreements, Reported in Policyholder Account Balances

Certain of our U.S. insurance subsidiaries are members of a regional FHLB. During the years ended December 31, 2018, 2017 and 2016, we issued $27.3 billion, $22.4 billion and $17.0 billion, respectively, and repaid $27.5 billion, $22.4 billion and $15.2 billion, respectively, under funding agreements with certain regional FHLBs. At December 31, 2018 and 2017, total obligations outstanding under these funding agreements were $15.1 billion and $15.3 billion, respectively. See Note 4 of the Notes to the Consolidated Financial Statements.

Federal Home Loan Bank Advance Agreements, Reported in Payables for Collateral Under Securities Loaned and Other Transactions

During the years ended December 31, 2018 and 2017, we issued $3.1 billion and $301 million, respectively, and repaid $2.6 billion and $1 million, respectively, under advance agreements with a regional FHLB. At December 31, 2018 and 2017, total obligations outstanding under these advance agreements were $800 million and $300 million, respectively. There were no such transactions during the year ended December 31, 2016. See Note 8 of the Notes to the Consolidated Financial Statements.

Special Purpose Entity Funding Agreements, Reported in Policyholder Account Balances

We issue fixed and floating rate funding agreements which are denominated in either U.S. dollars or foreign currencies, to certain special purpose entities ("SPEs") that have issued either debt securities or commercial paper for which payment of interest and principal is secured by such funding agreements. During the years ended December 31, 2018, 2017 and 2016, we issued $41.8 billion, $42.7 billion and $39.7 billion, respectively, and repaid $43.7 billion, $41.4 billion and $38.5 billion, respectively, under such funding agreements. At December 31, 2018 and 2017, total obligations outstanding under these funding agreements were $32.3 billion and $34.2 billion, respectively. See Note 4 of the Notes to the Consolidated Financial Statements.

Federal Agricultural Mortgage Corporation Funding Agreements, Reported in Policyholder Account Balances

We have issued funding agreements to a subsidiary of Farmer Mac, as well as to certain SPEs that have issued debt securities for which payment of interest and principal is secured by such funding agreements, and such debt securities are also guaranteed as to payment of interest and principal by Farmer Mac. The obligations under all such funding agreements are secured by a pledge of certain eligible agricultural mortgage loans. During the years ended December 31, 2018, 2017 and 2016, we issued $900 million, $1.0 billion and $1.2 billion, respectively, and repaid $900 million, $1.0 billion and $1.2 billion, respectively, under such funding agreements. At both December 31, 2018 and 2017, total obligations outstanding under these funding agreements were $2.6 billion. See Note 4 of the Notes to the Consolidated Financial Statements.

Credit and Committed Facilities

At December 31, 2018, we maintained a $3.0 billion unsecured revolving credit facility and certain committed facilities aggregating $3.3 billion, of which MetLife, Inc. is a party and/or guarantor. When drawn upon, these facilities bear interest at varying rates in accordance with the respective agreements. See Note 12 of the Notes to the Consolidated Financial Statements.

The unsecured revolving credit facility is used for general corporate purposes, to support the borrowers' commercial paper programs and for the issuance of letters of credit. At December 31, 2018, we had outstanding $446 million in letters of credit and no drawdowns against this facility. Remaining availability was $2.6 billion at December 31, 2018.

The committed facilities are used as collateral for certain of our affiliated reinsurance liabilities. At December 31, 2018, we had outstanding $2.8 billion in letters of credit and no drawdowns against these facilities. Remaining availability was $491 million at December 31, 2018. As of December 31, 2018, Brighthouse was a beneficiary of $2.4 billion of letters of credit issued under these committed facilities. See Note 3 of the Notes to the Consolidated Financial Statements.

We have no reason to believe that our lending counterparties will be unable to fulfill their respective contractual obligations under these facilities. As commitments under our credit and committed facilities may expire unused, these amounts do not necessarily reflect our actual future cash funding requirements.

Affiliated Preferred Units Issuances

In June 2017, Brighthouse Holdings, LLC issued 50,000 units of 6.50% fixed rate cumulative preferred units to MetLife, Inc. and, in turn, MetLife, Inc. sold the preferred units to third-party investors for net proceeds of $49 million. See Note 3 of the Notes to the Consolidated Financial Statements.

Outstanding Debt Under Global Funding Sources

The following table summarizes our outstanding debt excluding long-term debt relating to CSEs at:

	December 31,	
	2018	2017
	(In millions)	
Short-term debt (1)	$ 268	$ 477
Long-term debt (2)	$ 12,824	$ 15,680
Collateral financing arrangement	$ 1,060	$ 1,121
Junior subordinated debt securities (3)	$ 3,147	$ 3,144

(1) Includes $168 million and $377 million of debt that is non-recourse to MetLife, Inc. and MLIC, subject to customary exceptions, at December 31, 2018 and 2017, respectively. Certain subsidiaries have pledged assets to secure this debt.

(2) Includes $422 million and $523 million of debt that is non-recourse to MetLife, Inc. and MLIC, subject to customary exceptions, at December 31, 2018 and 2017, respectively. Certain investment subsidiaries have pledged assets to secure this debt.

(3) For information regarding the junior subordinated debt securities, see Note 14 of the Notes to the Consolidated Financial Statements and Note 5 of the Notes to the MetLife, Inc. (Parent Company Only) Condensed Financial Information in Schedule II.

Debt and Facility Covenants

Certain of our debt instruments and committed facilities, as well as our unsecured revolving credit facility, contain various administrative, reporting, legal and financial covenants. We believe we were in compliance with all applicable financial covenants at December 31, 2018.

Dispositions

Cash proceeds from dispositions during the years ended December 31, 2018, 2017 and 2016 were $0, $0, and $291 million, respectively. See Note 3 of the Notes to the Consolidated Financial Statements.

Liquidity and Capital Uses

In addition to the general description of liquidity and capital uses in "— Summary of the Company's Primary Sources and Uses of Liquidity and Capital" and "— Contractual Obligations," the Company's primary uses of liquidity and capital are set forth below.

Common Stock Repurchases

See Note 15 of the Notes to the Consolidated Financial Statements for information relating to authorizations by the Board of Directors to repurchase MetLife, Inc. common stock, amounts of common stock repurchased pursuant to such authorizations during the years ended December 31, 2018, 2017 and 2016, and the amount remaining under such authorizations at December 31, 2018. See Note 22 of the Notes to the Consolidated Financial Statements for information regarding shares of common stock repurchased subsequent to December 31, 2018.

Common stock repurchases are subject to the discretion of our Board of Directors and will depend upon our capital position, liquidity, financial strength and credit ratings, general market conditions, the market price of MetLife, Inc.'s common stock compared to management's assessment of the stock's underlying value, applicable regulatory approvals, and other legal and accounting factors. Restrictions on the payment of dividends that may arise under so-called "Dividend Stopper" provisions would also restrict MetLife, Inc.'s ability to repurchase common stock. See "— Dividends" for information about these restrictions. See also "Risk Factors — Capital Risks — Legal and Regulatory Restrictions May Prevent Us from Paying Dividends and Repurchasing Our Stock at the Level We Wish."

Dividends

During the years ended December 31, 2018, 2017 and 2016, MetLife, Inc. paid dividends on its preferred stock of $141 million, $103 million and $103 million, respectively. During each of the years ended December 31, 2018, 2017 and 2016, MetLife, Inc. paid $1.7 billion of dividends on its common stock. See Note 15 of the Notes to the Consolidated Financial Statements for information regarding the calculation and timing of these dividend payments.

Dividends are paid quarterly on MetLife, Inc.'s Floating Rate Non-Cumulative Preferred Stock, Series A. Dividends are paid semi-annually on MetLife, Inc.'s 5.25% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, until June 15, 2020 and, thereafter, will be paid quarterly. Dividends are paid semi-annually on MetLife, Inc.'s 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D, in September and March until March 15, 2028 and, thereafter, will be paid quarterly. Dividends are paid quarterly on MetLife, Inc.'s 5.625% Non-Cumulative Preferred Stock, Series E.

The declaration and payment of common stock dividends are subject to the discretion of our Board of Directors, and will depend on MetLife, Inc.'s financial condition, results of operations, cash requirements, future prospects, regulatory restrictions on the payment of dividends by MetLife, Inc.'s insurance subsidiaries and other factors deemed relevant by the Board. See Note 22 of the Notes to the Consolidated Financial Statements for information regarding a common stock dividend declared subsequent to December 31, 2018.

"Dividend Stopper" Provisions in MetLife's Preferred Stock and Junior Subordinated Debentures

MetLife, Inc.'s preferred stock and junior subordinated debentures contain "dividend stopper" provisions under which MetLife, Inc. may not pay dividends on instruments junior to those instruments if payments have not been made on those instruments. Moreover, MetLife, Inc.'s Series A preferred stock and its junior subordinated debentures contain provisions that would limit the payment of dividends or interest on those instruments if MetLife, Inc. fails to meet certain tests ("Trigger Events"), to an amount not greater than the net proceeds from sales of common stock and other specified instruments during a period preceding the dividend declaration date or the interest payment date, as applicable. If such proceeds were under the circumstances insufficient to make such payments on those instruments, the dividend stopper provisions affecting common stock (and preferred stock, as applicable) would come into effect.

A "Trigger Event" would occur if:

- the RBC ratio of MetLife's largest U.S. insurance subsidiaries in the aggregate (as defined in the applicable instrument) were to be less than 175% of the company action level based on the subsidiaries' prior year annual financial statements filed (generally around March 1) with state insurance commissioners; or
- at the end of a quarter ("Final Quarter End Test Date"), consolidated GAAP net income for the four-quarter period ending two quarters before such quarter-end (the "Preliminary Quarter End Test Date") is zero or a negative amount and the consolidated GAAP stockholders' equity, minus AOCI (the "adjusted stockholders' equity amount"), as of the Final Quarter End Test Date and the Preliminary Quarter End Test Date, declined by 10% or more from (A) its level 10 quarters before the Final Quarter End Test Date (the "Benchmark Quarter End Test Date"), for Benchmark Quarter End Test Dates after August 4, 2017 (the date of the Separation), or (B) $49,282,000,000, the consolidated GAAP stockholders' equity, minus AOCI as of June 30, 2017 as reported on a pro forma basis reflecting the Separation in MetLife's Form 8-K filed with the SEC on August 9, 2017, for Benchmark Quarter End Test Dates prior to August 4, 2017.

Once a Trigger Event occurs for a Final Quarter End Test Date, the suspension of payments of dividends and interest (in the absence of sufficient net proceeds from the issuance of certain securities during specified periods) would continue until there is no Trigger Event at a subsequent Final Quarter End Test Date, and, if the test in the second paragraph above caused the Trigger Event, the adjusted stockholders' equity amount is no longer 10% or more below its level at the Benchmark Quarter End Test Date that is associated with the Trigger Event. In the case of successive Trigger Events, the suspension would continue until MetLife satisfies these conditions for each of the Trigger Events.

The junior subordinated debentures further provide that MetLife, Inc. may, at its option and provided that certain conditions are met, elect to defer payment of interest. See Note 14 of the Notes to the Consolidated Financial Statements. Any such elective deferral would trigger the dividend stopper provisions.

Further, MetLife, Inc. is a party to certain replacement capital covenants which limit its ability to eliminate these restrictions through the repayment, redemption or purchase of the junior subordinated debentures by requiring MetLife, Inc., with some limitations, to receive cash proceeds during a specified period from the sale of specified replacement securities prior to any repayment, redemption or purchase. See Note 14 of the Notes to the Consolidated Financial Statements for a description of such covenants.

Debt Repayments

See Notes 12 and 13 of the Notes to the Consolidated Financial Statements for further information on long-term and short-term debt and the collateral financing arrangement, respectively, including:

- During 2018, 2017 and 2016, following regulatory approval, MetLife Reinsurance Company of Charleston ("MRC"), a wholly-owned subsidiary of MetLife, Inc., repurchased and canceled $61 million, $153 million and $68 million, respectively, in aggregate principal amount of its surplus notes, which were reported in collateral financing arrangement on the consolidated balance sheets;
- In August 2018, MetLife, Inc. repaid at maturity the remaining $533 million of its 6.817% senior notes;
- In December 2017, MetLife, Inc. repaid at maturity its $500 million 1.756% senior notes;
- In December 2017, MetLife, Inc. repaid at maturity its $500 million 1.903% senior notes; and
- In June 2016, MetLife, Inc. repaid at maturity its $1.3 billion 6.750% senior notes.

Debt Repurchases, Redemptions and Exchanges

We may from time to time seek to retire or purchase our outstanding debt through cash purchases, redemptions and/or exchanges for other securities, in open market purchases, privately negotiated transactions or otherwise. Any such repurchases, redemptions, or exchanges will be dependent upon several factors, including our liquidity requirements, contractual restrictions, general market conditions, and applicable regulatory, legal and accounting factors. Whether or not to repurchase or redeem any debt and the size and timing of any such repurchases or redemptions will be determined at our discretion.

In June 2018, MetLife, Inc. sold FVO Brighthouse Common Stock in exchange for $944 million in aggregate principal amount of its senior notes. In December, August and June 2018, MetLife, Inc. purchased for cash $500 million, $566 million and $160 million, respectively, in aggregate principal amount of its senior notes. See Note 12 of the Notes to the Consolidated Financial Statements for further information on long-term and short-term debt.

Support Agreements

MetLife, Inc. and several of its subsidiaries (each, an "Obligor") are parties to various capital support commitments and guarantees with subsidiaries. Under these arrangements, each Obligor has agreed to cause the applicable entity to meet specified capital and surplus levels or has guaranteed certain contractual obligations. We anticipate that in the event these arrangements place demands upon us, there will be sufficient liquidity and capital to enable us to meet such demands. See "— MetLife, Inc. — Liquidity and Capital Uses — Support Agreements."

Insurance Liabilities

Liabilities arising from our insurance activities primarily relate to benefit payments under various life insurance, property and casualty, annuity and group pension products, as well as payments for policy surrenders, withdrawals and loans. For annuity or deposit type products, surrender or lapse behavior differs somewhat by segment. In the MetLife Holdings segment, which includes individual annuities, lapses and surrenders tend to occur in the normal course of business. During the years ended December 31, 2018 and 2017, general account surrenders and withdrawals from annuity products were $1.8 billion and $1.6 billion, respectively. In the RIS business within the U.S. segment, which includes pension risk transfers, bank-owned life insurance and other fixed annuity contracts, as well as funding agreements and other capital market products, most of the products offered have fixed maturities or fairly predictable surrenders or withdrawals. With regard to the RIS business products that provide customers with limited rights to accelerate payments, at December 31, 2018, there were funding agreements totaling $148 million that could be put back to the Company.

Pledged Collateral

We pledge collateral to, and have collateral pledged to us by, counterparties in connection with our derivatives. At both December 31, 2018 and 2017, we had received pledged cash collateral from counterparties of $5.0 billion. At December 31, 2018 and 2017, we had pledged cash collateral to counterparties of $283 million and $456 million, respectively. With respect to OTC-bilateral derivatives in a net liability position and have credit contingent provisions, a one-notch downgrade in the Company's credit or financial strength rating, as applicable, would have required $10 million of additional collateral be provided to our counterparties as of December 31, 2018. See Note 9 of the Notes to the Consolidated Financial Statements for additional information about collateral pledged to us, collateral we pledge and derivatives subject to credit contingent provisions.

We pledge collateral and have had collateral pledged to us, and may be required from time to time to pledge additional collateral or be entitled to have additional collateral pledged to us, in connection with the collateral financing arrangement related to the reinsurance of closed block liabilities. See Note 13 of the Notes to the Consolidated Financial Statements.

We pledge collateral from time to time in connection with funding agreements and advance agreements. See Note 4 of the Notes to the Consolidated Financial Statements.

Securities Lending

We participate in a securities lending program whereby securities are loaned to third parties, primarily brokerage firms and commercial banks. We obtain collateral, usually cash, from the borrower, which must be returned to the borrower when the loaned securities are returned to us. Under our securities lending program, we were liable for cash collateral under our control of $18.0 billion and $19.4 billion at December 31, 2018 and 2017, respectively. Of these amounts, $2.7 billion and $3.8 billion at December 31, 2018 and 2017, respectively, were on open, meaning that the related loaned security could be returned to us on the next business day requiring the immediate return of cash collateral we hold. The estimated fair value of the securities on loan related to the cash collateral on open at December 31, 2018 was $2.7 billion, all of which were U.S. government and agency securities which, if put to us, could be immediately sold to satisfy the cash requirement. See Note 8 of the Notes to the Consolidated Financial Statements.

Repurchase Agreements

We participate in short-term repurchase agreements whereby securities are loaned to unaffiliated financial institutions. We obtain collateral, usually cash, from the borrower, which must be returned to the borrower when the loaned securities are returned to us. Under these repurchase agreements, we were liable for cash collateral under our control of $1.1 billion at both December 31, 2018 and 2017. The estimated fair value of the securities on loan at December 31, 2018 was $1.1 billion which were primarily U.S. government and agency securities which, if put to us, could be immediately sold to satisfy the cash requirement. See Note 8 of the Notes to the Consolidated Financial Statements.

Litigation

We establish liabilities for litigation and regulatory loss contingencies when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. For material matters where a loss is believed to be reasonably possible but not probable, no accrual is made but we disclose the nature of the contingency and an aggregate estimate of the reasonably possible range of loss in excess of amounts accrued, when such an estimate can be made. It is not possible to predict the ultimate outcome of all pending investigations and legal proceedings. In some of the matters referred to herein, very large and/or indeterminate amounts, including punitive and treble damages, are sought. Given the large and/or indeterminate amounts sought in certain of these matters and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material adverse effect on our consolidated net income or cash flows in particular quarterly or annual periods. See Note 20 of the Notes to the Consolidated Financial Statements.

Acquisitions

Cash outflows for acquisitions and investments in strategic partnerships during the years ended December 31, 2018, 2017 and 2016 were $0, $211 million and $0, respectively.

Contractual Obligations

The following table summarizes our major contractual obligations at December 31, 2018:

	Total	One Year or Less	More than One Year to Three Years	More than Three Years to Five Years	More than Five Years
			(In millions)		
Insurance liabilities	$ 318,082	$ 22,246	$ 17,927	$ 17,298	$ 260,611
Policyholder account balances	234,958	32,036	22,784	16,733	163,405
Payables for collateral under securities loaned and other transactions	24,794	24,794	—	—	—
Debt	31,950	1,247	2,772	3,602	24,329
Investment commitments	11,734	11,344	330	60	—
Operating leases	2,126	292	542	433	859
Other	19,059	18,707	—	—	352
Total	$ 642,703	$ 110,666	$ 44,355	$ 38,126	$ 449,556

Insurance Liabilities

Insurance liabilities include future policy benefits, other policy-related balances, policyholder dividends payable and the policyholder dividend obligation, which are all reported on the consolidated balance sheet and are more fully described in Notes 1 and 4 of the Notes to the Consolidated Financial Statements. The amounts presented reflect future estimated cash payments and (i) are based on mortality, morbidity, lapse and other assumptions comparable with our experience and expectations of future payment patterns; and (ii) consider future premium receipts on current policies in-force. All estimated cash payments presented are undiscounted as to interest, net of estimated future premiums on in-force policies and gross of any reinsurance recoverable. Payment of amounts related to policyholder dividends left on deposit are projected based on assumptions of policyholder withdrawal activity. Because the exact timing and amount of the ultimate policyholder dividend obligation is subject to significant uncertainty and the amount of the policyholder dividend obligation is based upon a long-term projection of the performance of the closed block, we have reflected the obligation at the amount of the liability, if any, presented on the consolidated balance sheet in the more than five years category. Additionally, the more than five years category includes estimated payments due for periods extending for more than 100 years.

The sum of the estimated cash flows of $318.1 billion exceeds the liability amounts of $204.4 billion included on the consolidated balance sheet principally due to (i) the time value of money, which accounts for a substantial portion of the difference; (ii) differences in assumptions, most significantly mortality, between the date the liabilities were initially established and the current date; and (iii) liabilities related to accounting conventions, or which are not contractually due, which are excluded.

Actual cash payments may differ significantly from the liabilities as presented on the consolidated balance sheet and the estimated cash payments as presented due to differences between actual experience and the assumptions used in the establishment of these liabilities and the estimation of these cash payments.

For the majority of our insurance operations, estimated contractual obligations for future policy benefits and policyholder account balances, as presented, are derived from the annual asset adequacy analysis used to develop actuarial opinions of statutory reserve adequacy for state regulatory purposes. These cash flows are materially representative of the cash flows under GAAP. See "— Policyholder Account Balances."

Policyholder Account Balances

See Notes 1 and 4 of the Notes to the Consolidated Financial Statements for a description of the components of policyholder account balances. See "— Insurance Liabilities" regarding the source and uncertainties associated with the estimation of the contractual obligations related to future policy benefits and policyholder account balances.

Amounts presented represent the estimated cash payments undiscounted as to interest and including assumptions related to the receipt of future premiums and deposits; withdrawals, including unscheduled or partial withdrawals; policy lapses; surrender charges; annuitization; mortality; future interest credited; policy loans and other contingent events as appropriate for the respective product type. Such estimated cash payments are also presented net of estimated future premiums on policies currently in-force and gross of any reinsurance recoverable. For obligations denominated in foreign currencies, cash payments have been estimated using current spot foreign currency rates.

The sum of the estimated cash flows of $235.0 billion exceeds the liability amount of $183.7 billion included on the consolidated balance sheet principally due to (i) the time value of money, which accounts for a substantial portion of the difference; (ii) differences in assumptions, between the date the liabilities were initially established and the current date; and (iii) liabilities related to accounting conventions, or which are not contractually due, which are excluded.

Payables for Collateral Under Securities Loaned and Other Transactions

We have accepted cash collateral in connection with securities lending and derivatives. As the securities lending transactions expire within the next year and the timing of the return of the derivatives collateral is uncertain, the return of the collateral has been included in the one year or less category in the table above. We also held non-cash collateral, which is not reflected as a liability on the consolidated balance sheet, of $1.4 billion at December 31, 2018.

Debt

Amounts presented for debt include short-term debt, long-term debt, the collateral financing arrangement and junior subordinated debt securities, the total of which differs from the total of the corresponding amounts presented on the consolidated balance sheet as the amounts presented herein (i) do not include premiums or discounts upon issuance or purchase accounting fair value adjustments; (ii) include future interest on such obligations for the period from January 1, 2019 through maturity; and (iii) do not include long-term debt relating to CSEs at December 31, 2018 as such debt does not represent our contractual obligation. Future interest on variable rate debt was computed using prevailing rates at December 31, 2018 and, as such, does not consider the impact of future rate movements. Future interest on fixed rate debt was computed using the stated rate on the obligations for the period from January 1, 2019 through maturity, except with respect to junior subordinated debt which was computed using the stated rates through the scheduled redemption dates as it is our expectation that such obligations will be redeemed as scheduled. Inclusion of interest payments on junior subordinated debt securities through the final maturity dates would increase the contractual obligation by $7.7 billion. Pursuant to the collateral financing arrangement, MetLife, Inc. may be required to deliver cash or pledge collateral to the unaffiliated financial institution. See Note 13 of the Notes to the Consolidated Financial Statements.

Investment Commitments

To enhance the return on our investment portfolio, we commit to lend funds under mortgage loans, bank credit facilities, bridge loans and private corporate bond investments and we commit to fund partnership investments. In the table above, the timing of the funding of mortgage loans and private corporate bond investments is based on the expiration dates of the corresponding commitments. As it relates to commitments to fund partnerships and bank credit facilities, we anticipate that these amounts could be invested any time over the next five years; however, as the timing of the fulfillment of the obligation cannot be predicted, such obligations are generally presented in the one year or less category. Commitments to fund bridge loans are short-term obligations and, as a result, are presented in the one year or less category. See Note 20 of the Notes to the Consolidated Financial Statements and "— Off-Balance Sheet Arrangements."

Operating Leases

As a lessee, we have various operating leases, primarily for office space. Contractual provisions exist that could increase or accelerate those lease obligations presented, including various leases with early buyouts and/or escalation clauses. However, the impact of any such transactions would not be material to our financial position or results of operations. See Note 20 of the Notes to the Consolidated Financial Statements.

Other

Other obligations presented are principally comprised of amounts due under reinsurance agreements, payables related to securities purchased but not yet settled, securities sold short, accrued interest on debt obligations, estimated fair value of derivative obligations, deferred compensation arrangements, guaranty liabilities, and accruals and accounts payable due under contractual obligations, which are all reported in other liabilities on the consolidated balance sheet. If the timing of any of these other obligations is sufficiently uncertain, the amounts are included within the one year or less category. Items reported in other liabilities on the consolidated balance sheet that were excluded from the table represent accounting conventions or are not liabilities due under contractual obligations. Unrecognized tax benefits and related accrued interest totaling $1.3 billion were excluded as the timing of payment could not be reliably determined at December 31, 2018.

Separate account liabilities are excluded as they are fully funded by cash flows from the corresponding separate account assets and are set equal to the estimated fair value of separate account assets.

We also enter into agreements to purchase goods and services in the normal course of business; however, such amounts are excluded as these purchase obligations were not material to our consolidated results of operations or financial position at December 31, 2018.

Additionally, we have agreements in place for services we conduct, generally at cost, between subsidiaries relating to insurance, reinsurance, loans and capitalization. Intercompany transactions have been eliminated in consolidation. Intercompany transactions among insurance subsidiaries and affiliates have been approved by the appropriate insurance regulators as required.

MetLife, Inc.

Liquidity and Capital Management

Liquidity and capital are managed to preserve stable, reliable and cost-effective sources of cash to meet all current and future financial obligations and are provided by a variety of sources, including a portfolio of liquid assets, a diversified mix of short- and long-term funding sources from the wholesale financial markets and the ability to borrow through credit and committed facilities. Liquidity is monitored through the use of internal liquidity risk metrics, including the composition and level of the liquid asset portfolio, timing differences in short-term cash flow obligations, access to the financial markets for capital and debt transactions and exposure to contingent draws on MetLife, Inc.'s liquidity. MetLife, Inc. is an active participant in the global financial markets through which it obtains a significant amount of funding. These markets, which serve as cost-effective sources of funds, are critical components of MetLife, Inc.'s liquidity and capital management. Decisions to access these markets are based upon relative costs, prospective views of balance sheet growth and a targeted liquidity profile and capital structure. A disruption in the financial markets could limit MetLife, Inc.'s access to liquidity.

MetLife, Inc.'s ability to maintain regular access to competitively priced wholesale funds is fostered by its current credit ratings from the major credit rating agencies. We view our capital ratios, credit quality, stable and diverse earnings streams, diversity of liquidity sources and our liquidity monitoring procedures as critical to retaining such credit ratings. See "— The Company — Capital — Rating Agencies."

Liquidity

For a summary of MetLife, Inc.'s liquidity, see "— The Company — Liquidity."

Capital

For a summary of MetLife, Inc.'s capital, see "— The Company — Capital." See also "— The Company — Liquidity and Capital Uses — Common Stock Repurchases" for information regarding MetLife, Inc.'s common stock repurchases.

Liquid Assets

At December 31, 2018 and 2017, MetLife, Inc. and other MetLife holding companies had $3.0 billion and $5.7 billion, respectively, in liquid assets. Of these amounts, $2.4 billion and $4.1 billion were held by MetLife, Inc. and $607 million and $1.6 billion were held by other MetLife holding companies at December 31, 2018 and 2017, respectively. Liquid assets include cash and cash equivalents, short-term investments and publicly-traded securities, excluding assets that are pledged or otherwise committed. Assets pledged or otherwise committed include amounts received in connection with derivatives and a collateral financing arrangement.

Liquid assets held in non-U.S. holding companies are generated in part through dividends from non-U.S. insurance operations. Such dividends are subject to local insurance regulatory requirements, as discussed in "— Liquidity and Capital Sources — Dividends from Subsidiaries." The cumulative earnings of certain active non-U.S. operations have historically been reinvested indefinitely in such non-U.S. operations. Following a post-Separation review of our capital needs in the third quarter of 2017, we disclosed our intent to repatriate approximately $3.0 billion of pre-2017 earnings. The Company repatriated $2.6 billion in the fourth quarter of 2017 and the remaining $400 million in the second quarter of 2018. As a result of U.S. Tax Reform, we expect to repatriate future foreign earnings back to the U.S. with minimal or no additional U.S. tax. See Note 18 of the Notes to the Consolidated Financial Statements and "— Risk Factors — Regulatory and Legal Risks — Changes in Tax Laws or Interpretations of Such Laws Could Reduce Our Earnings and Materially Impact Our Operations by Increasing Our Corporate Taxes and Making Some of Our Products Less Attractive to Consumers."

See "— Executive Summary — Consolidated Company Outlook," for the targeted level of liquid assets at the holding companies.

MetLife, Inc. and Other MetLife Holding Companies Sources and Uses of Liquid Assets and Sources and Uses of Liquid Assets included in Free Cash Flow

MetLife, Inc.'s sources and uses of liquid assets, as well as sources and uses of liquid assets included in free cash flow are summarized as follows.

	Year Ended December 31, 2018		Year Ended December 31, 2017		Year Ended December 31, 2016	
	Sources and Uses of Liquid Assets	Sources and Uses of Liquid Assets Included in Free Cash Flow	Sources and Uses of Liquid Assets	Sources and Uses of Liquid Assets Included in Free Cash Flow	Sources and Uses of Liquid Assets	Sources and Uses of Liquid Assets Included in Free Cash Flow
	(In millions)					
MetLife, Inc. (Parent Company Only)						
Sources:						
Dividends and returns of capital from subsidiaries (1)	$ 7,454	$ 7,454	$ 7,404	$ 7,404	$ 4,550	$ 4,550
Long-term debt issued (2)	—	—	—	—	—	—
Repayments on and (issuances of) loans to subsidiaries and related interest, net (3)	—	—	—	—	—	—
Preferred stock issued	1,274	—	—	—	—	—
Other, net (4)	—	—	107	4	120	(210)
Total sources	8,728	7,454	7,511	7,408	4,670	4,340
Uses:						
Capital contributions to subsidiaries (5)	767	767	339	124	1,733	1,733
Long-term debt repaid — unaffiliated	1,759	—	1,000	—	1,250	—
Interest paid on debt and financing arrangements — unaffiliated	964	964	980	980	983	983
Dividends on common stock	1,678	—	1,717	—	1,736	—
Treasury stock acquired in connection with share repurchases	3,992	—	2,927	—	372	—
Dividends on preferred stock	141	141	103	103	103	103
Issuances of and (repayments on) loans to subsidiaries and related interest, net (3)	63	63	33	33	99	99
Other, net (4)	1,029	1,083	—	—	—	—
Total uses	10,393	3,018	7,099	1,240	6,276	2,918
Net increase (decrease) in liquid assets, MetLife, Inc. (Parent Company Only)	(1,665)		412		(1,606)	
Liquid assets, beginning of year	4,095		3,683		5,289	
Liquid assets, end of year	$ 2,430		$ 4,095		$ 3,683	
Free Cash Flow, MetLife, Inc. (Parent Company Only)		4,436		6,168		1,422
Net cash provided by operating activities, MetLife, Inc. (Parent Company Only)	$ 5,494		$ 6,462		$ 3,747	
Other MetLife Holding Companies						
Sources:						
Dividends and returns of capital from subsidiaries	$ 2,836	$ 2,836	$ 2,125	$ 2,125	$ 1,485	$ 1,485
Capital contributions from MetLife, Inc.	—	—	—	—	—	—
Total sources	2,836	2,836	2,125	2,125	1,485	1,485
Uses:						
Capital contributions to subsidiaries	57	57	12	12	53	53
Repayments on and (issuance of) loans to subsidiaries and affiliates and related interest, net	6	6	6	6	307	307
Dividends and returns of capital to MetLife, Inc.	3,200	3,200	2,200	2,200	—	—
Other, net	603	603	408	408	123	123
Total uses	3,866	3,866	2,626	2,626	483	483
Net increase (decrease) in liquid assets, Other MetLife Holding Companies	(1,030)		(501)		1,002	
Liquid assets, beginning of year	1,643		2,144		1,142	
Liquid assets, end of year	$ 613		$ 1,643		$ 2,144	
Free Cash Flow, Other MetLife Holding Companies		(1,030)		(501)		1,002
Net increase (decrease) in liquid assets, All Holding Companies	$ (2,695)		$ (89)		$ (604)	
Free Cash Flow, All Holding Companies (6) (7)		$ 3,406		$ 5,667		$ 2,424

(1) Dividends and returns of capital to MetLife, Inc. included $4.3 billion, $5.2 billion and $4.6 billion from operating subsidiaries and $3.2 billion, $2.2 billion and $0 from other MetLife holding companies during the years ended December 31, 2018, 2017 and 2016, respectively. Included in dividends and returns of capital to MetLife, Inc. are the following which increased MetLife, Inc. liquid assets and free cash flow: dividends from Brighthouse subsidiaries of $0, $1.8 billion and $556 million, and returns of capital from Brighthouse subsidiaries of $0, $590 million and $0, during the years ended December 31, 2018, 2017 and 2016, respectively. Also, dividends and returns of capital to MetLife, Inc. includes $49 million from the June 2017 issuance by Brighthouse Holdings, LLC of 50,000 units of 6.50% fixed rate cumulative preferred units to MetLife, Inc. which MetLife, Inc. sold to third-party investors.

(2) Included in free cash flow is the portion of long-term debt issued that represents incremental debt to be at or below target leverage ratios.

(3) See MetLife, Inc. (Parent Company Only) Condensed Statements of Cash Flows included in Schedule II of the Financial Statement Schedules for the source of liquid assets from receipts on loans to subsidiaries (excluding interest) and for the use of liquid assets for the issuances of loans to subsidiaries (excluding interest).

(4) Other, net includes ($877) million, $860 million and $433 million of net receipts (payments) by MetLife, Inc. to and from subsidiaries under a tax sharing agreement and tax payments to tax agencies during the years ended December 31, 2018, 2017 and 2016, respectively.

(5) Amounts to fund business acquisitions were $0, $215 million and $0 (included in capital contributions to subsidiaries) during the years ended December 31, 2018, 2017 and 2016, respectively.

(6) In 2018, $268 million of Separation-related items (comprised of certain Separation-related inflows primarily related to reinsurance benefit from Brighthouse) were included in free cash flow, which increased our holding companies' liquid assets, as well as our free cash flow ratio. Excluding these Separation-related items, adjusted free cash flow would be $3.1 billion for the year ended December 31, 2018. In 2017, $2.1 billion of Separation-related items (comprised of certain Separation-related inflows primarily related to dividends from Brighthouse, net of outflows) were included in the free cash flow, which increased our holding companies' liquid assets, as well as our free cash flow ratio. Excluding these Separation-related items, adjusted free cash flow would be $3.6 billion for the year ended December 31, 2017. In 2016, we incurred $2.3 billion of Separation-related items (comprised of certain Separation-related outflows, net of inflows related to dividends from Brighthouse subsidiaries) which reduced our holding companies' liquid assets, as well as our free cash flow and free cash flow ratio. Excluding these Separation-related items, adjusted free cash flow would be $4.7 billion for the year ended December 31, 2016.

(7) See "— Non-GAAP and Other Financial Disclosures" for the reconciliation of net cash provided by operating activities of MetLife, Inc. to free cash flow of all holding companies.

Sources and Uses of Liquid Assets of MetLife, Inc.

The primary sources of MetLife, Inc.'s liquid assets are dividends and returns of capital from subsidiaries, issuances of long-term debt, issuances of common and preferred stock, and net receipts from subsidiaries under a tax sharing agreement. MetLife, Inc.'s insurance subsidiaries are subject to regulatory restrictions on the payment of dividends imposed by the regulators of their respective domiciles. See "— Liquidity and Capital Sources — Dividends from Subsidiaries."

The primary uses of MetLife, Inc.'s liquid assets are principal and interest payments on long-term debt, dividends on and repurchases of common and preferred stock, capital contributions to subsidiaries, funding of business acquisitions, income taxes and operating expenses. MetLife, Inc. is party to various capital support commitments and guarantees with certain of its subsidiaries. See "— Liquidity and Capital Uses — Support Agreements."

In addition, MetLife, Inc. issues loans to subsidiaries or subsidiaries issue loans to MetLife, Inc. Accordingly, changes in MetLife, Inc. liquid assets include issuances of loans to subsidiaries, proceeds of loans from subsidiaries and the related repayment of principal and payment of interest on such loans. See "— Liquidity and Capital Sources — Affiliated Long-term Debt" and "— Liquidity and Capital Uses — Affiliated Capital and Debt Transactions."

Sources and Uses of Liquid Assets of Other MetLife Holding Companies

The primary sources of liquid assets of other MetLife holding companies are dividends, returns of capital and remittances from their subsidiaries and branches, principally non-U.S. insurance companies; capital contributions received; receipts of principal and interest on loans to subsidiaries and affiliates and borrowings from subsidiaries and affiliates. MetLife, Inc.'s non-U.S. operations are subject to regulatory restrictions on the payment of dividends imposed by local regulators. See "— Liquidity and Capital Sources — Dividends from Subsidiaries."

The primary uses of liquid assets of other MetLife holding companies are capital contributions paid to their subsidiaries and branches, principally non-U.S. insurance companies; loans to subsidiaries and affiliates; principal and interest paid on loans from subsidiaries and affiliates; dividends and returns of capital to MetLife, Inc. and the following items, which are reported within other, net: business acquisitions; and operating expenses. There were no uses of liquid assets of other MetLife holding companies to fund business acquisitions during the years ended December 31, 2018, 2017, or 2016.

Liquidity and Capital Sources

In addition to the description of liquidity and capital sources in "— The Company — Summary of the Company's Primary Sources and Uses of Liquidity and Capital" and "— The Company — Liquidity and Capital Sources," MetLife, Inc.'s primary sources of liquidity and capital are set forth below.

Dividends from Subsidiaries

MetLife, Inc. relies, in part, on dividends from its subsidiaries to meet its cash requirements. MetLife, Inc.'s insurance subsidiaries are subject to regulatory restrictions on the payment of dividends imposed by the regulators of their respective domiciles. See Note 15 of the Notes to the Consolidated Financial Statements. The dividend limitation for U.S. insurance subsidiaries is generally based on the surplus to policyholders at the end of the immediately preceding calendar year and statutory net gain from operations for the immediately preceding calendar year. Statutory accounting practices, as prescribed by insurance regulators of various states in which we conduct business, differ in certain respects from accounting principles used in financial statements prepared in conformity with GAAP. The significant differences relate to the treatment of DAC, certain deferred income tax, required investment liabilities, statutory reserve calculation assumptions, goodwill and surplus notes.

The table below sets forth the dividends permitted to be paid by MetLife, Inc.'s primary insurance subsidiaries without insurance regulatory approval and the actual dividends paid:

	2019	2018		2017		2016	
Company	Permitted Without Approval (1)	Paid (2)	Permitted Without Approval (3)	Paid (2)	Permitted Without Approval (3)	Paid (2)	Permitted Without Approval (3)
				(In millions)			
Metropolitan Life Insurance Company	$ 3,096	$ 3,736 (3)	$ 3,075	$ 2,523	$ 2,723	$ 5,740 (4)	$ 3,753
American Life Insurance Company	$ —	$ 3,200	$ —	$ 2,200	$ —	$ —	$ —
Brighthouse Life Insurance Company	N/A	N/A	N/A	$ —	$ 473 (5)	$ 261	$ 586
Metropolitan Property and Casualty Insurance Company	$ 171	$ 233	$ 125	$ 185	$ 98	$ 228	$ 130
Metropolitan Tower Life Insurance Company (6)	$ 154	$ 191 (6)	$ 73	$ —	$ 66	$ 60	$ 70
New England Life Insurance Company	N/A	N/A	N/A	$ —	$ 106 (5)	$ 295	$ 156
General American Life Insurance Company (6)	N/A	$ —	$ 118	$ 1	$ 91	$ —	$ 136

(1) Reflects dividend amounts that may be paid during the relevant year without prior regulatory approval ("ordinary dividends"). However, because dividend tests may be based on dividends previously paid over rolling 12-month periods, if paid before a specified date during such year, some or all of such dividends may require regulatory approval.

(2) Reflects all amounts paid, including those where regulatory approval was obtained as required ("extraordinary dividends").

(3) Represents ordinary dividends of $3.0 billion and an extraordinary dividend of $705 million. The extraordinary dividend was paid in cash with proceeds from the sale to an affiliate of certain property, equipment, leasehold improvements and computer software that were non-admitted by MLIC for statutory accounting purposes. The affiliate received a capital contribution in cash from MetLife, Inc. to fund the purchase.

(4) In 2016, MLIC paid an ordinary cash dividend to MetLife, Inc. in the amount of $3.6 billion. In addition, in December 2016, MLIC distributed all of the issued and outstanding shares of common stock of each of New England Life Insurance Company ("NELICO") and GALIC to MetLife, Inc. in the form of a non-cash extraordinary dividend in the amount of $981 million and $1.2 billion, respectively, as calculated on a statutory basis.

(5) In April 2017, in connection with the Separation, MetLife, Inc. contributed all of the issued and outstanding shares of common stock of each of Brighthouse Insurance and NELICO to Brighthouse Holdings, LLC. As a result of the Separation, Brighthouse Insurance and NELICO ceased to be subsidiaries of MetLife, Inc. See Note 3 of the Notes to the Consolidated Financial Statements for information regarding the Separation.

(6) In April 2018, MTL merged with GALIC ("MTL Merger"). The surviving entity of the merger was MTL, which re-domesticated from Delaware to Nebraska immediately prior to the merger. The total dividends paid of $191 million is equal to the sum of the individual 2018 ordinary dividends that MTL and GALIC would each have been permitted to pay computed on a stand-alone basis if the MTL Merger had not occurred.

In addition to the amounts presented in the table above, in August 2017, Brighthouse Financial, Inc. paid a cash dividend to MetLife, Inc. of $1.8 billion in connection with the Separation. For the years ended December 31, 2018, 2017 and 2016, MetLife, Inc. also received cash payments of $7 million, $39 million and $26 million, respectively, representing dividends from non-Brighthouse subsidiaries. Additionally, for the year ended December 31, 2018, MetLife, Inc. received cash returns of capital of $87 million. For the year ended December 31, 2017, MetLife, Inc. received cash returns of capital of $610 million from certain subsidiaries, including $590 million from MetLife Reinsurance Company of South Carolina ("MRSC"), in connection with the Separation. For the year ended December 31, 2016, MetLife, Inc. received cash of $80 million, representing returns of capital from certain subsidiaries. See Note 3 of the Notes to the Consolidated Financial Statements.

The dividend capacity of our non-U.S. operations is subject to similar restrictions established by the local regulators. The non-U.S. regulatory regimes also commonly limit dividend payments to the parent company to a portion of the subsidiary's prior year statutory income, as determined by the local accounting principles. The regulators of our non-U.S. operations, including the FSA, may also limit or not permit profit repatriations or other transfers of funds to the U.S. if such transfers are deemed to be detrimental to the solvency or financial strength of the non-U.S. operations, or for other reasons. Most of our non-U.S. subsidiaries are second tier subsidiaries which are owned by various non-U.S. holding companies. The capital and rating considerations applicable to our first tier subsidiaries may also impact the dividend flow into MetLife, Inc.

We proactively manage target and excess capital levels and dividend flows and forecast local capital positions as part of the financial planning cycle. The dividend capacity of certain U.S. and non-U.S. subsidiaries is also subject to business targets in excess of the minimum capital necessary to maintain the desired rating or level of financial strength in the relevant market. See "Risk Factors — Capital Risks — As a Holding Company, MetLife, Inc. Depends on the Ability of Its Subsidiaries to Pay Dividends, a Major Component of Holding Company Free Cash Flow" and Note 15 of the Notes to the Consolidated Financial Statements.

Short-term Debt

MetLife, Inc. maintains a commercial paper program, the proceeds of which can be used to finance the general liquidity needs of MetLife, Inc. and its subsidiaries. MetLife, Inc. had no short-term debt outstanding at either December 31, 2018 or 2017.

Preferred Stock

For information on MetLife, Inc.'s preferred stock, see "— The Company — Liquidity and Capital Sources — Global Funding Sources — Preferred Stock."

Affiliated Long-term Debt

In May 2018, $500 million in senior notes previously issued by MetLife, Inc. to MLIC and other subsidiaries were redenominated to new 54.6 billion Japanese yen senior notes. The 54.6 billion Japanese yen senior notes mature in December 2021 and bear interest at a rate per annum of 3.14%, payable semi-annually.

In April 2018, $500 million in senior notes previously issued by MetLife, Inc. to MLIC and other subsidiaries were redenominated to new 53.7 billion Japanese yen senior notes. The 53.7 billion Japanese yen senior notes mature in July 2021 and bear interest at a rate per annum of 2.97%, payable semi-annually.

In March 2018, three senior notes previously issued by MetLife, Inc. to MLIC were redenominated to Japanese yen. A $500 million senior note was redenominated to a new 53.3 billion Japanese yen senior note. The 53.3 billion Japanese yen senior note matures in June 2019 and bears interest at a rate per annum of 1.45%, payable semi-annually. A $250 million senior note was redenominated to a new 26.5 billion Japanese yen senior note. The 26.5 billion Japanese yen senior note matures in October 2019 and bears interest at a rate per annum of 1.72%, payable semi-annually. A $250 million senior note was also redenominated to a new 26.5 billion Japanese yen senior note. The 26.5 billion Japanese yen senior note matures in September 2020 and bears interest at a rate per annum of 0.82%, payable semi-annually.

In September 2016, a $250 million senior note issued to MLIC matured and, subsequently, in September 2016 MetLife, Inc. issued a new $250 million senior note to MLIC. The senior note matures in September 2020 and bears interest at a rate per annum of 3.03%, payable semi-annually.

Collateral Financing Arrangement and Junior Subordinated Debt Securities

For information on MetLife, Inc.'s collateral financing arrangement and junior subordinated debt securities, see Notes 13 and 14 of the Notes to the Consolidated Financial Statements, respectively, and Note 5 of the Notes to the MetLife, Inc. (Parent Company Only) Condensed Financial Information in Schedule II.

Credit and Committed Facilities

See "— The Company — Liquidity and Capital Sources — Global Funding Sources — Credit and Committed Facilities," as well as Note 12 of the Notes to the Consolidated Financial Statements, for further information regarding the unsecured revolving credit facility and these committed facilities.

In June 2016, MetLife, Inc. entered into a five-year agreement with an indirect wholly-owned subsidiary, MetLife Ireland Treasury d.a.c. (formerly known as MetLife Ireland Treasury Limited) ("MIT"), to borrow up to $1.3 billion on a revolving basis, at interest rates based on the IRS safe harbor interest rate in effect at the time of the borrowing. MetLife, Inc. may borrow funds under the agreement at MIT's discretion and subject to the availability of funds. There were no outstanding borrowings at December 31, 2018.

Long-term Debt Outstanding

The following table summarizes the outstanding long-term debt of MetLife, Inc. at:

	December 31,	
	2018	2017
	(In millions)	
Long-term debt — unaffiliated	$ 11,844	$ 14,599
Long-term debt — affiliated (1)	$ 1,957	$ 2,000
Junior subordinated debt securities	$ 2,456	$ 2,454

(1) See "— Affiliated Long-term Debt."

Debt and Facility Covenants

Certain of MetLife, Inc.'s debt instruments and committed facilities, as well as its unsecured revolving credit facility, contain various administrative, reporting, legal and financial covenants. MetLife, Inc. believes it was in compliance with all applicable financial covenants at December 31, 2018.

Dispositions

Cash proceeds from dispositions during the years ended December 31, 2018, 2017 and 2016 were $0, $0 and $291 million, respectively. See Note 3 of the Notes to the Consolidated Financial Statements.

Liquidity and Capital Uses

The primary uses of liquidity of MetLife, Inc. include debt service, cash dividends on common and preferred stock, capital contributions to subsidiaries, common stock, preferred stock and debt repurchases, payment of general operating expenses and acquisitions. Based on our analysis and comparison of our current and future cash inflows from the dividends we receive from subsidiaries that are permitted to be paid without prior insurance regulatory approval, our investment portfolio and other cash flows and anticipated access to the capital markets, we believe there will be sufficient liquidity and capital to enable MetLife, Inc. to make payments on debt, pay cash dividends on its common and preferred stock, contribute capital to its subsidiaries, repurchase its common stock, pay all general operating expenses and meet its cash needs.

In addition to the description of liquidity and capital uses in "— The Company — Liquidity and Capital Uses" and "— The Company — Contractual Obligations," MetLife, Inc.'s primary uses of liquidity and capital are set forth below.

Affiliated Capital and Debt Transactions

During the years ended December 31, 2018 and 2017, MetLife, Inc. invested a net amount of $778 million and $729 million, respectively, in various non-Brighthouse subsidiaries. During the year ended December 31, 2016, MetLife, Inc. invested a net amount of $1.5 billion, in various subsidiaries, which included a cash capital contribution of $1.5 billion to Brighthouse Insurance in connection with the Separation.

MetLife, Inc. lends funds, as necessary, through credit agreements or otherwise to its subsidiaries and affiliates, some of which are regulated, to meet their capital requirements or to provide liquidity. MetLife, Inc. had loans to subsidiaries outstanding of $100 million at both December 31, 2018 and 2017.

In April 2017, in connection with the Separation, MetLife Reinsurance Company of Delaware ("MRD") repaid $750 million and $350 million of surplus notes to MetLife, Inc., in an exchange transaction. The $750 million surplus note bore interest at a fixed rate of 5.13% and the $350 million surplus note bore interest at a fixed rate of 6.00%, both payable semi-annually. Simultaneously, MetLife, Inc. repaid $750 million and $350 million senior notes to MRD.

In February 2017, in connection with the Separation, MetLife, Inc. exchanged $750 million aggregate principal amount of its 9.250% Fixed-to-Floating Rate Junior Subordinated Debentures due 2068 for $750 million aggregate liquidation preference of the 9.250% Fixed-to- Floating Rate Exchangeable Surplus Trust Securities of MetLife Capital Trust X (the "Trust"). As a result of the exchange, MetLife, Inc. became the sole beneficial owner of the Trust, a special purpose entity which issued the exchangeable surplus trust securities to third-party investors. In March 2017, MetLife, Inc. dissolved the Trust and became the direct holder of $750 million 8.595% surplus notes previously held by the Trust that were issued by Brighthouse Insurance. See Note 14 of the Notes to the Consolidated Financial Statements. In June 2017, MetLife, Inc. forgave Brighthouse Insurance's obligation to pay the principal amount of such surplus notes. This transaction, which was a non-cash capital contribution to Brighthouse Holdings, LLC, and a corresponding non-cash capital contribution to Brighthouse Insurance, had no impact on the consolidated financial statements of MetLife, Inc. as of the date of the transaction.

In April 2016, American Life issued a $140 million short-term note to MetLife, Inc. which was repaid in June 2016. The short-term note bore interest at six-month LIBOR plus 1.00%.

Debt Repayments

For information on MetLife, Inc.'s debt repayments, see "— The Company — Liquidity and Capital Uses — Debt Repayments." MetLife, Inc. intends to repay or refinance, in whole or in part, all the debt that is due in 2019. See Note 3 of the Notes to the Consolidated Financial Statements for discussion of a $2.8 billion repayment on the MRSC collateral financing agreement liability in April 2017 in connection with the Separation, utilizing assets held in trust.

Repayments of Affiliated Long-term Debt

In April 2017, in connection with the Separation, MetLife, Inc. in an exchange transaction repaid $750 million and $350 million of senior notes to MRD due September 2032 and December 2033, respectively. The $750 million senior note bore interest at a fixed rate of 4.21% and the $350 million senior note bore interest at a fixed rate of 5.10%. Simultaneously, MRD repaid $750 million and $350 million of surplus notes to MetLife, Inc.

In June 2016 and March 2016, MetLife, Inc. repaid $204 million and $10 million, respectively, of affiliated long-term debt to MetLife Exchange Trust I, at maturity, in exchange for returns of capital. The long-term notes bore interest at three-month LIBOR plus 0.70%.

Maturities of Senior Notes

The following table summarizes MetLife, Inc.'s outstanding senior notes by year of maturity through 2023 and 2024 to 2046, excluding any premium or discount and unamortized issuance costs, at December 31, 2018:

Year of Maturity	Principal		Interest Rate
	(In millions)		
2019	$ 486	(1)	1.45%
2019	$ 242	(1)	1.72%
2020	$ 509		5.25%
2020	$ 242	(1)	0.82%
2021	$ 368		4.75%
2021	$ 490	(1)	2.97%
2021	$ 497	(1)	3.14%
2022	$ 500		3.05%
2023	$ 1,000		4.37%
2024 - 2046	$ 9,546		Ranging from 3.00% - 6.50%

(1) Represents affiliated debt.

Support Agreements

MetLife, Inc. is party to various capital support commitments and guarantees with certain of its subsidiaries. Under these arrangements, MetLife, Inc. has agreed to cause each such entity to meet specified capital and surplus levels or has guaranteed certain contractual obligations. See "— The Company — Liquidity and Capital Uses — Support Agreements."

MetLife, Inc. guarantees the obligations of its subsidiary, Missouri Reinsurance, Inc. ("MoRe"), under a retrocession agreement with RGA Reinsurance (Barbados) Inc., pursuant to which MoRe retrocedes a portion of the closed block liabilities associated with industrial life and ordinary life insurance policies that it assumed from MLIC.

MetLife, Inc. guarantees the obligations of MetLife Reinsurance Company of Bermuda, Ltd. ("MrB"), a Bermuda insurance affiliate and an indirect, wholly-owned subsidiary of MetLife, Inc. under a reinsurance agreement with Mitsui Sumitomo Primary Life Insurance Co., Ltd. ("Mitsui"), a former affiliate that is now an unaffiliated third party, under which MrB reinsures certain variable annuity business written by Mitsui.

MetLife, Inc. guarantees the obligations of MrB in an aggregate amount up to $1.0 billion, under a reinsurance agreement with MetLife Europe d.a.c. ("MEL") (formerly known as MetLife Europe Limited), under which MrB reinsured the guaranteed living benefits and guaranteed death benefits associated with certain unit-linked variable annuity type liability contracts issued by MEL.

MetLife, Inc., in connection with MetLife Reinsurance Company of Vermont's ("MRV") reinsurance of certain universal life and term life insurance risks, committed to the Vermont Department of Banking, Insurance, Securities and Health Care Administration to take necessary action to cause the two protected cells of MRV to maintain total adjusted capital in an amount that is equal to or greater than 200% of each such protected cell's authorized control level RBC, as defined in Vermont state insurance statutes. See Note 12 of the Notes to the Consolidated Financial Statements.

MetLife, Inc., in connection with the collateral financing arrangement associated with MRC's reinsurance of a portion of the liabilities associated with the closed block, committed to the South Carolina Department of Insurance to make capital contributions, if necessary, to MRC so that MRC may at all times maintain its total adjusted capital in an amount that is equal to or greater than 200% of the company action level RBC, as defined in South Carolina state insurance statutes as in effect on the date of determination or December 31, 2007, whichever calculation produces the greater capital requirement, or as otherwise required by the South Carolina Department of Insurance. See Note 13 of the Notes to the Consolidated Financial Statements.

MetLife, Inc. guarantees obligations arising from OTC-bilateral derivatives of the following subsidiaries: MrB, MetLife International Holdings, LLC and MetLife Worldwide Holdings, LLC. These subsidiaries are exposed to various risks relating to their ongoing business operations, including interest rate, foreign currency exchange rate, credit and equity market. These subsidiaries use a variety of strategies to manage these risks, including the use of derivatives. Further, all of the subsidiaries' derivatives are subject to industry standard netting agreements and collateral agreements that limit the unsecured portion of any open derivative position. On a net counterparty basis at December 31, 2018 and 2017, derivative transactions with positive mark-to-market values (in-the-money) were $302 million and $515 million, respectively, and derivative transactions with negative mark-to-market values (out-of-the-money) were $84 million and $126 million, respectively. To secure the obligations represented by the out of-the-money transactions, the subsidiaries had provided collateral to their counterparties with an estimated fair value of $84 million and $114 million at December 31, 2018 and 2017, respectively. Accordingly, unsecured derivative liabilities guaranteed by MetLife, Inc. were $0 and $12 million at December 31, 2018 and 2017, respectively.

MetLife, Inc. also guarantees the obligations of certain of its subsidiaries under committed facilities with third-party banks. See Note 12 of the Notes to the Consolidated Financial Statements.

Acquisitions

Cash outflows for acquisitions during the years ended December 31, 2018, 2017 and 2016 were $0, $211 million and $0, respectively.

Adoption of New Accounting Pronouncements

See Note 1 of the Notes to the Consolidated Financial Statements.

Future Adoption of New Accounting Pronouncements

See Note 1 of the Notes to the Consolidated Financial Statements.

Non-GAAP and Other Financial Disclosures

In this report, the Company presents certain measures of its performance that are not calculated in accordance with GAAP. We believe that these non-GAAP financial measures enhance the understanding of our performance by highlighting the results of operations and the underlying profitability drivers of our business.

The following non-GAAP financial measures should not be viewed as substitutes for the most directly comparable financial measures calculated in accordance with GAAP:

Non-GAAP financial measures:	**Comparable GAAP financial measures:**
(i) adjusted revenues	(i) revenues
(ii) adjusted expenses	(ii) expenses
(iii) adjusted earnings	(iii) income (loss) from continuing operations, net of income tax
(iv) adjusted earnings available to common shareholders	(iv) net income (loss) available to MetLife, Inc.'s common shareholders
(v) free cash flow of all holding companies	(v) MetLife, Inc. (parent company only) net cash provided by operating activities

Reconciliations of these non-GAAP measures to the most directly comparable historical GAAP measures are included in this section and the results of operations, see "— Results of Operations." Reconciliations of these non-GAAP measures to the most directly comparable GAAP measures are not accessible on a forward-looking basis because we believe it is not possible without unreasonable effort to provide other than a range of net investment gains and losses and net derivative gains and losses, which can fluctuate significantly within or outside the range and from period to period and may have a material impact on net income.

Our definitions of the various non-GAAP and other financial measures discussed in this report may differ from those used by other companies.

Adjusted earnings and related measures:

- adjusted earnings; and
- adjusted earnings available to common shareholders.

These measures are used by management to evaluate performance and allocate resources. Consistent with GAAP guidance for segment reporting, adjusted earnings is also our GAAP measure of segment performance. Adjusted earnings and other financial measures based on adjusted earnings are also the measures by which senior management's and many other employees' performance is evaluated for the purposes of determining their compensation under applicable compensation plans. Adjusted earnings and other financial measures based on adjusted earnings allow analysis of our performance relative to our business plan and facilitate comparisons to industry results.

Adjusted earnings is defined as adjusted revenues less adjusted expenses, net of income tax. Adjusted loss is defined as negative adjusted earnings. Adjusted earnings available to common shareholders is defined as adjusted earnings less preferred stock dividends.

Adjusted revenues and adjusted expenses

The financial measures of adjusted revenues and adjusted expenses focus on our primary businesses principally by excluding the impact of market volatility, which could distort trends, and revenues and costs related to non-core products and certain entities required to be consolidated under GAAP. Also, these measures exclude results of discontinued operations under GAAP and other businesses that have been or will be sold or exited by MetLife but do not meet the discontinued operations criteria under GAAP and are referred to as divested businesses. Divested businesses also includes the net impact of transactions with exited businesses that have been eliminated in consolidation under GAAP and costs relating to businesses that have been or will be sold or exited by MetLife that do not meet the criteria to be included in results of discontinued operations under GAAP. In addition, for the year ended December 31, 2016, adjusted revenues and adjusted expenses exclude the financial impact of converting the Company's Japan operations to calendar year-end reporting without retrospective application of this change to prior periods and is referred to as lag elimination. Adjusted revenues also excludes net investment gains (losses) and net derivative gains (losses). Adjusted expenses also excludes goodwill impairments.

The following additional adjustments are made to revenues, in the line items indicated, in calculating adjusted revenues:

- Universal life and investment-type product policy fees excludes the amortization of unearned revenue related to net investment gains (losses) and net derivative gains (losses) and certain variable annuity GMIB fees ("GMIB fees");
- Net investment income: (i) includes earned income on derivatives and amortization of premium on derivatives that are hedges of investments or that are used to replicate certain investments, but do not qualify for hedge accounting treatment ("Investment hedge adjustments"), (ii) excludes post-tax adjusted earnings adjustments relating to insurance joint ventures accounted for under the equity method, (iii) excludes certain amounts related to contractholder-directed equity securities ("Unit-linked contract income"), (iv) excludes certain amounts related to securitization entities that are VIEs consolidated under GAAP and (v) includes distributions of profits from certain other limited partnership interests that were previously accounted for under the cost method, but are now accounted for at estimated fair value, where the change in estimated fair value is recognized in net investment gains (losses) under GAAP; and
- Other revenues is adjusted for settlements of foreign currency earnings hedges and excludes fees received in association with services provided under transition service agreements ("TSA fees").

The following additional adjustments are made to expenses, in the line items indicated, in calculating adjusted expenses:

- Policyholder benefits and claims and policyholder dividends excludes: (i) changes in the policyholder dividend obligation related to net investment gains (losses) and net derivative gains (losses), (ii) inflation-indexed benefit adjustments associated with contracts backed by inflation-indexed investments and amounts associated with periodic crediting rate adjustments based on the total return of a contractually referenced pool of assets and other pass through adjustments, (iii) benefits and hedging costs related to GMIBs ("GMIB costs") and (iv) market value adjustments associated with surrenders or terminations of contracts ("Market value adjustments");
- Interest credited to policyholder account balances includes adjustments for earned income on derivatives and amortization of premium on derivatives that are hedges of policyholder account balances but do not qualify for hedge accounting treatment and excludes certain amounts related to net investment income earned on contractholder-directed equity securities;
- Amortization of DAC and VOBA excludes amounts related to: (i) net investment gains (losses) and net derivative gains (losses), (ii) GMIB fees and GMIB costs and (iii) Market value adjustments;
- Amortization of negative VOBA excludes amounts related to Market value adjustments;
- Interest expense on debt excludes certain amounts related to securitization entities that are VIEs consolidated under GAAP; and
- Other expenses excludes costs related to: (i) noncontrolling interests, (ii) implementation of new insurance regulatory requirements and (iii) acquisition, integration and other costs. Other expenses includes TSA fees.

Adjusted earnings also excludes the recognition of certain contingent assets and liabilities that could not be recognized at acquisition or adjusted for during the measurement period under GAAP business combination accounting guidance.

The tax impact of the adjustments mentioned above are calculated net of the U.S. or foreign statutory tax rate, which could differ from the Company's effective tax rate. Additionally, the provision for income tax (expense) benefit also includes the impact related to the timing of certain tax credits, as well as certain tax reforms.

Return on equity, allocated equity and related measures:

- MetLife, Inc.'s common stockholders' equity, excluding AOCI other than FCTA, is defined as MetLife, Inc.'s common stockholders' equity, excluding the net unrealized investment gains (losses) and defined benefit plans adjustment components of AOCI, net of income tax.
- Adjusted return on MetLife, Inc.'s common stockholders' equity is defined as adjusted earnings available to common shareholders divided by MetLife, Inc.'s average common stockholders' equity.
- Adjusted return on MetLife, Inc.'s common stockholders' equity, excluding AOCI other than FCTA is defined as adjusted earnings available to common shareholders divided by MetLife, Inc.'s average common stockholders' equity, excluding AOCI other than FCTA.
- Allocated equity is the portion of MetLife, Inc.'s common stockholders' equity that management allocates to each of its segments and sub-segments based on local capital requirements and economic capital. See "— Economic Capital." Allocated equity excludes the impact of AOCI other than FCTA.

The above measures represent a level of equity consistent with the view that, in the ordinary course of business, we do not plan to sell most investments for the sole purpose of realizing gains or losses. Also refer to the utilization of adjusted earnings and other financial measures based on adjusted earnings mentioned above.

Expense ratio and direct expense ratio:

- Expense ratio: other expenses, net of capitalization of DAC, divided by premiums, fees and other revenues.
- Direct expense ratio: direct expenses, on an adjusted basis, divided by adjusted premiums, fees and other revenues. Direct expenses are comprised of employee-related costs, third party staffing costs, and general and administrative expenses.
- Direct expense ratio, excluding total notable items related to direct expenses and pension risk transfers: direct expenses, on an adjusted basis, excluding total notable items related to direct expenses, divided by adjusted premiums, fees and other revenues, excluding pension risk transfers.

The following additional information is relevant to an understanding of our performance results:

- The impact of changes in our foreign currency exchange rates is calculated using the average foreign currency exchange rates for the most recent year being compared and applied to the comparable prior year ("Constant Currency Basis").
- We sometimes refer to sales activity for various products. These sales statistics do not correspond to revenues under GAAP, but are used as relevant measures of business activity. Further, sales statistics for our Latin America, Asia and EMEA segments are on a Constant Currency Basis.
- Near-term represents one to three years.
- Asymmetrical and non-economic accounting refers to: (i) the portion of net derivative gains (losses) on embedded derivatives attributable to the inclusion of our credit spreads in the liability valuations, (ii) hedging activity that generates net derivative gains (losses) and creates fluctuations in net income because hedge accounting cannot be achieved and the item being hedged does not a have an offsetting gain or loss recognized in earnings, (iii) inflation-indexed benefit adjustments associated with contracts backed by inflation-indexed investments and amounts associated with periodic crediting rate adjustments based on the total return of a contractually referenced pool of assets and other pass through adjustments, and (iv) impact of changes in foreign currency exchange rates on the re-measurement of foreign denominated unhedged funding agreements and financing transactions to the U.S. dollar and the re-measurement of certain liabilities from non-functional currencies to functional currencies. We believe that excluding the impact of asymmetrical and non-economic accounting from total GAAP results enhances investor understanding of our performance by disclosing how these accounting practices affect reported GAAP results.
- Notable items represent a positive (negative) impact to adjusted earnings available to common shareholders. Notable items reflect the unexpected impact of events that affect MetLife's results, but that were unknown and that MetLife could not anticipate when it devised its Business Plan. Notable items also include certain items regardless of the extent anticipated in the Business Plan, to help investors have a better understanding of MetLife's results and to evaluate and forecast those results.
- The Company uses a measure of free cash flow to facilitate an understanding of its ability to generate cash for reinvestment into its businesses or use in non-mandatory capital actions. The Company defines free cash flow as the sum of cash available at MetLife's holding companies from dividends from operating subsidiaries, expenses and other net flows of the holding companies (including capital contributions to subsidiaries), and net contributions from debt to be at or below target leverage ratios. This measure of free cash flow is prior to capital actions, such as common stock dividends and repurchases, debt reduction and mergers and acquisitions. Free cash flow should not be viewed as a substitute for net cash provided by (used in) operating activities calculated in accordance with GAAP. The free cash flow ratio is typically expressed as a percentage of annual adjusted earnings available to common shareholders. A reconciliation of net cash provided by operating activities of MetLife, Inc. (parent company only) to free cash flow of all holding companies for the years ended December 31, 2018, 2017 and 2016 is provided below.

Reconciliation of Net Cash Provided by Operating Activities of MetLife, Inc. to Free Cash Flow of All Holding Companies	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
MetLife, Inc. (parent company only) net cash provided by operating activities	$ 5,494	$ 6,462	$ 3,747
Adjustments from net cash provided by operating activities to free cash flow:			
Add: Incremental debt to be at or below target leverage ratios	—	—	—
Add: Capital contributions to subsidiaries	(767)	(124)	(1,733)
Add: Returns of capital from subsidiaries	87	610	80
Add: Investment portfolio and derivatives changes and other, net	(378)	(780)	(672)
MetLife, Inc. (parent company only) free cash flow	4,436	6,168	1,422
Other MetLife, Inc. holding companies:			
Add: Dividends and returns of capital from subsidiaries	2,836	2,125	1,485
Add: Capital contributions to subsidiaries	(57)	(12)	(53)
Add: Repayments on and (issuances of) loans to subsidiaries, net	(6)	(6)	(307)
Add: Other expenses	(771)	(626)	(671)
Add: Dividends and returns of capital to MetLife, Inc.	(3,200)	(2,200)	—
Add: Investment portfolio and derivative changes and other, net	168	218	548
Total other MetLife, Inc. holding companies free cash flow	(1,030)	(501)	1,002
Free cash flow of all holding companies (1)	$ 3,406	$ 5,667	$ 2,424
Ratio of net cash provided by operating activities to consolidated net income (loss) available to MetLife, Inc.'s common shareholders:			
MetLife, Inc. (parent company only) net cash provided by operating activities	$ 5,494	$ 6,462	$ 3,747
Consolidated net income (loss) available to MetLife, Inc.'s common shareholders (1)	$ 4,982	$ 3,907	$ 747
Ratio of net cash provided by operating activities (parent company only) to consolidated net income (loss) available to MetLife, Inc.'s common shareholders (1) (2)	110%	165%	502%
Ratio of free cash flow to adjusted earnings available to common shareholders:			
Free cash flow of all holding companies (3)	$ 3,406	$ 5,667	$ 2,424
Consolidated adjusted earnings available to common shareholders (3)	$ 5,461	$ 4,235	$ 4,033
Ratio of free cash flow of all holding companies to consolidated adjusted earnings available to common shareholders (3)	62%	134%	60%

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(1) Consolidated net income (loss) available to MetLife, Inc.'s common shareholders for 2018 includes Separation-related costs of $80 million, net of income tax. Excluding this amount from the denominator of the ratio, this ratio, as adjusted, would be 109%. Consolidated net income (loss) available to MetLife, Inc.'s common shareholders for 2017 includes Separation-related costs of $312 million, net of income tax. Excluding this amount from the denominator of the ratio, this ratio, as adjusted, would be 153%. Consolidated net income (loss) available to MetLife, Inc.'s common shareholders for 2016 includes Separation-related costs of $73 million, net of income tax. Excluding this amount from the denominator of the ratio, this ratio, as adjusted, would be 457%. See "— Liquidity and Capital Resources — MetLife, Inc. — Liquid Assets — MetLife, Inc. and Other MetLife Holding Companies Sources and Uses of Liquid Assets and Sources and Uses of Liquid Assets included in Free Cash Flow."

(2) Including the free cash flow of other MetLife, Inc. holding companies of ($1.0) billion, ($501) million and $1.0 billion for the years ended December 31, 2018, 2017 and 2016, respectively, in the numerator of the ratio, this ratio, as adjusted, would be 90%, 153% and 636%, respectively. Including the free cash flow of other MetLife, Inc. holding companies in the numerator of the ratio and excluding the Separation-related costs and uncertain tax position non-cash charge from the denominator of the ratio, this ratio, as adjusted, would be 88%, 141% and 579% for the years ended December 31, 2018, 2017 and 2016, respectively.

(3) i) In 2018, $268 million of Separation-related items (comprised of certain Separation-related inflows primarily related to reinsurance benefit from Brighthouse) were included in free cash flow, which increased our holding companies' liquid assets, as well as our free cash flow ratio. Excluding these Separation-related items, adjusted free cash flow would be $3.1 billion for the year ended December 31, 2018. Consolidated adjusted earnings available to common shareholders for 2018 was negatively impacted by notable items, primarily related to expense initiative costs of $284 million, net of income tax, partially offset by tax adjustments of $247 million, net of income tax. Excluding the Separation-related items, which increased free cash flow, from the numerator of the ratio and excluding such notable items negatively impacting consolidated adjusted earnings available to common shareholders from the denominator of the ratio, the adjusted free cash flow ratio for 2018 would be 56%.

ii) In 2017, $2.1 billion of Separation-related items (comprised of certain Separation-related inflows primarily related to dividends from Brighthouse, net of outflows) were included in the free cash flow, which increased our holding companies' liquid assets, as well as our free cash flow ratio. Excluding these Separation-related items, adjusted free cash flow would be $3.6 billion for the year ended December 31, 2017. Consolidated adjusted earnings available to common shareholders for 2017 was negatively impacted by notable items, primarily related to tax adjustments, of $622 million, net of income tax. Excluding the Separation-related items, which increased free cash flow, from the numerator of the ratio and excluding such notable items negatively impacting consolidated adjusted earnings available to common shareholders from the denominator of the ratio, the adjusted free cash flow ratio for 2017 would be 75%.

iii) In 2016, we incurred $2.3 billion of Separation-related items (comprised of certain Separation-related outflows, net of inflows related to dividends from Brighthouse subsidiaries) which reduced our holding companies' liquid assets, as well as our free cash flow and free cash flow ratio. Excluding these Separation-related items, adjusted free cash flow would be $4.7 billion for the year ended December 31, 2016. Consolidated adjusted earnings available to common shareholders for 2016 was negatively impacted by notable items, primarily related to the actuarial assumption review and other insurance adjustments, of $709 million, net of income tax, and Separation-related costs of $15 million, net of income tax. Excluding the Separation-related items, which reduced free cash flow, from the numerator of the ratio and excluding such notable items and Separation-related costs negatively impacting consolidated adjusted earnings available to common shareholders from the denominator of the ratio, the adjusted free cash flow ratio for 2016 would be 98%.

Subsequent Events

See Note 22 of the Notes to the Consolidated Financial Statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Risk Management

We have an integrated process for managing risk, which we conduct through multiple Board and senior management committees (financial and non-financial) across the GRM, ALM, Finance, Treasury, Investments and business segment departments. The risk committee structure is designed to provide a consolidated enterprise-wide assessment and management of risk. The ERC is responsible for reviewing all material risks to the enterprise and deciding on actions, if necessary, in the event risks exceed desired tolerances, taking into consideration industry best practices and the current environment to resolve or mitigate those risks. Additional committees at the MetLife, Inc. and subsidiary insurance company level manage capital and risk positions and establish corporate business standards.

Global Risk Management

Independent from the lines of business, the centralized GRM, led by the CRO, coordinates across all committees to ensure that all material risks are properly identified, measured, aggregated, managed and reported across the Company. The CRO reports to the Chief Executive Officer ("CEO") and is primarily responsible for maintaining and communicating the Company's enterprise risk policies and for monitoring and analyzing all material risks.

GRM considers and monitors a full range of risks against the Company's solvency, liquidity, earnings, business operations and reputation. GRM's primary responsibilities consist of:

- implementing a corporate risk framework, which outlines our enterprise approach for managing risk;
- developing policies and procedures for identifying, managing, measuring, monitoring and controlling those risks identified in the corporate risk framework;
- coordinating Own Risk and Solvency Assessments for Board, senior management and regulator use;
- establishing appropriate corporate risk tolerance levels;
- recommending risk appetite statements and investment general authorizations to the Board;
- measuring capital on an economic basis;
- recommending capital allocations on an economic capital basis; and
- reporting to (i) the Finance and Risk Committee of MetLife, Inc.'s Board of Directors; (ii) the Investment Committee of MetLife, Inc.'s Board of Directors; (iii) the Compensation Committee of MetLife, Inc.'s Board of Directors; and (iv) the financial and non-financial senior management committees on various aspects of risk.

Asset/Liability Management

We actively manage our assets using an approach that is liability driven and balances quality, diversification, asset/liability matching, liquidity, concentration and investment return. The goals of the investment process are to optimize, net of income tax, risk-adjusted investment income and risk-adjusted total return while ensuring that the assets and liabilities are reasonably aligned on a cash flow and duration basis. The ALM process is the shared responsibility of the ALM, GRM, and Investments departments, with the engagement of senior members of the business segments, and is governed by the ALM Committees. The ALM Committees' duties include reviewing and approving target portfolios investment guidelines and limits, approving significant portfolio and ALM strategies and providing oversight of the ALM process. The directives of the ALM Committees are carried out and monitored through ALM Working Groups which are set up to manage risk by geography, product or portfolio type. The ALM Steering Committee oversees the activities of the underlying ALM Committees and Working Groups. The ALM Steering Committee reports to the ERC.

We establish portfolio guidelines that define ranges and limits related to asset allocation, interest rate risk, liquidity, concentration and other risks for each major business segment, legal entity or insurance product group. These guidelines support implementation of investment strategies used to adequately fund our liabilities within acceptable levels of risk. We also establish hedging programs and associated investment portfolios for different blocks of business. The ALM Working Groups monitor these strategies and programs through regular review of portfolio metrics, such as effective duration, yield curve sensitivity, convexity, value at risk, market sensitivities (to interest rates, equity market levels, equity volatility, and foreign exchange rates), stress scenario payoffs, liquidity, foreign exchange, asset sector concentration and credit quality.

Market Risk Exposures

We regularly analyze our exposure to interest rate, foreign currency exchange rate and equity market price risk. As a result of that analysis, we have determined that the estimated fair values of certain assets and liabilities are materially exposed to changes in interest rates, foreign currency exchange rates and equity markets. We have exposure to market risk through our insurance operations and investment activities. For purposes of this disclosure, "market risk" is defined as the risk of loss resulting from changes in interest rates, foreign currency exchange rates and equity markets.

Interest Rates

Our exposure to interest rate changes results most significantly from our holdings of fixed maturity securities, as well as our interest rate sensitive liabilities. The fixed maturity securities AFS include U.S. and foreign government bonds, securities issued by government agencies, corporate bonds, mortgage-backed securities and ABS, all of which are mainly exposed to changes in medium- and long-term interest rates. The interest rate sensitive liabilities for purposes of this disclosure include debt, policyholder account balances related to certain investment type contracts, and embedded derivatives on variable annuities with guaranteed minimum benefits which have the same type of interest rate exposure (medium- and long-term interest rates) as fixed maturity securities AFS. The interest rate sensitive liabilities for purposes of this disclosure exclude a significant portion of the liabilities relating to insurance contracts. See "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Adversely Affect Our Business, Results of Operations and Financial Condition."

Foreign Currency Exchange Rates

Our exposure to fluctuations in foreign currency exchange rates against the U.S. dollar results from our holdings in non-U.S. dollar denominated fixed maturity and equity securities, mortgage loans, and certain liabilities, as well as through our investments in foreign subsidiaries. The foreign currency exchange rate liabilities for purposes of this disclosure exclude a significant portion of the liabilities relating to insurance contracts. The principal currencies that create foreign currency exchange rate risk in our investment portfolios and liabilities are the Euro, the Japanese yen and the British pound. Selectively, we use U.S. dollar assets to support certain long-duration foreign currency liabilities. Through our investments in foreign subsidiaries and joint ventures, we are primarily exposed to the Japanese yen, the Euro, the Australian dollar, the British pound, the Mexican peso, the Chilean peso and the Korean won. In addition to hedging with foreign currency swaps, forwards and options, local surplus in some countries may be held entirely or in part in U.S. dollar assets, which further minimize exposure to foreign currency exchange rate fluctuation risk. We have matched much of our foreign currency liabilities in our foreign subsidiaries with their respective foreign currency assets, thereby reducing our risk to foreign currency exchange rate fluctuation. See "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Adversely Affect Our Business, Results of Operations and Financial Condition."

Equity Market

Along with investments in equity securities, we have exposure to equity market risk through certain liabilities that involve long-term guarantees on equity performance such as embedded derivatives on variable annuities with guaranteed minimum benefits and certain policyholder account balances. Equity exposures associated with limited partnership interests are excluded from this discussion as they are not considered financial instruments under GAAP.

Management of Market Risk Exposures

We use a variety of strategies to manage interest rate, foreign currency exchange rate and equity market risk, including the use of derivatives.

Interest Rate Risk Management

To manage interest rate risk, we analyze interest rate risk using various models, including multi-scenario cash flow projection models that forecast cash flows of the liabilities and their supporting investments, including derivatives. These projections involve evaluating the potential gain or loss on most of our in-force business under various increasing and decreasing interest rate environments. The NYDFS regulations require that we perform some of these analyses annually as part of our review of the sufficiency of our regulatory reserves. For several of our legal entities, we maintain segmented operating and surplus asset portfolios for the purpose of ALM and the allocation of investment income to product lines. In the U.S., for each segment, invested assets greater than or equal to the GAAP liabilities net of certain non-invested assets allocated to the segment are maintained, with any excess allocated to Corporate & Other. The business segments may reflect differences in legal entity, statutory line of business and any product market characteristic which may drive a distinct investment strategy with respect to duration, liquidity or credit quality of the invested assets. Certain smaller entities make use of unsegmented general accounts for which the investment strategy reflects the aggregate characteristics of liabilities in those entities. We measure relative sensitivities of the value of our assets and liabilities to changes in key assumptions utilizing internal models. These models reflect specific product characteristics and include assumptions based on current and anticipated experience regarding lapse, mortality and interest crediting rates. In addition, these models include asset cash flow projections reflecting interest payments, sinking fund payments, principal payments, bond calls, mortgage loan prepayments and defaults.

We employ product design, pricing and ALM strategies to reduce the potential effects of interest rate movements. Product design and pricing strategies include the use of surrender charges or restrictions on withdrawals in some products and the ability to reset crediting rates for certain products. ALM strategies include the use of derivatives. We also use reinsurance to mitigate interest rate risk.

We also use common industry metrics, such as duration and convexity, to measure the relative sensitivity of assets and liability values to changes in interest rates. In computing the duration of liabilities, we consider all policyholder guarantees and how we intend to set indeterminate policy elements such as interest credits or dividends. Each asset portfolio or portfolio group has a duration target based on the liability duration and the investment objectives of that portfolio. Where a liability cash flow may exceed the maturity of available assets, we may support such liabilities with equity investments, derivatives or interest rate curve mismatch strategies.

Foreign Currency Exchange Rate Risk Management

MetLife has a well-established Enterprise Foreign Exchange ("FX") Risk Policy to manage foreign currency exchange rate exposures within its risk tolerance. In general, investments backing specific liabilities are currency matched. This is achieved through direct investments in matching currency or through the use of FX derivatives. Enterprise FX risk limits are established by the ERC. Management of each of our segments, with oversight from our FX Risk Committee and the respective ALM committee for the segment, is responsible for managing any foreign currency exchange rate exposure.

We use foreign currency swaps, forwards and options to mitigate the liability exposure, risk of loss and financial statement volatility associated with our investments in foreign subsidiaries, foreign currency denominated fixed income investments and the sale of certain insurance products.

Equity Market Risk Management

We manage equity market risk on an integrated basis with other risks through our ALM strategies, including the dynamic hedging of certain variable annuity guarantee benefits, as well as reinsurance, in order to limit losses, minimize exposure to large risks, and provide additional capacity for future growth. We also manage equity market risk exposure in our investment portfolio through the use of derivatives. These derivatives include exchange-traded equity futures, equity index options contracts, total rate of return swaps and equity variance swaps. This risk is managed by our ALM Unit in partnership with the Investments Department.

Hedging Activities

We use derivative contracts primarily to hedge a wide range of risks including interest rate risk, foreign currency exchange rate risk, and equity market risk. Derivative hedges are designed to reduce risk on an economic basis while considering their impact on financial results under different accounting regimes, including U.S. GAAP and local statutory accounting. Our derivative hedge programs vary depending on the type of risk being hedged. Some hedge programs are asset or liability specific while others are portfolio hedges that reduce risk related to a group of liabilities or assets. Our use of derivatives by major hedge programs is as follows:

- Risks Related to Guarantee Benefits — We use a wide range of derivative contracts to mitigate the risk associated with living guarantee benefits. These derivatives include equity and interest rate futures, interest rate swaps, currency futures/forwards, equity indexed options, total rate of return swaps, interest rate option contracts and equity variance swaps.
- Minimum Interest Rate Guarantees — For certain liability contracts, we provide the contractholder a guaranteed minimum interest rate. These contracts include certain fixed annuities and other insurance liabilities. We purchase interest rate caps and floors to reduce risk associated with these liability guarantees.
- Reinvestment Risk in Long-Duration Liability Contracts — Derivatives are used to hedge interest rate risk related to certain long-duration liability contracts. Hedges include interest rate swaps and swaptions.
- Foreign Currency Exchange Rate Risk — We use currency swaps, forwards and options to hedge foreign currency exchange rate risk. These hedges are generally used to swap foreign currency denominated bonds, investments in foreign subsidiaries or equity market exposures to U.S. dollars. Our foreign subsidiaries also use these hedges to swap non-local currency assets to local currency, to match liabilities.
- General ALM Hedging Strategies — In the ordinary course of managing our asset/liability risks, we use interest rate futures, interest rate swaps, interest rate caps, and inflation swaps. These hedges are designed to reduce interest rate risk or inflation risk related to the existing assets or liabilities or related to expected future cash flows.

Risk Measurement: Sensitivity Analysis

We measure market risk related to our market sensitive assets and liabilities based on changes in interest rates, foreign currency exchange rates and equity market prices utilizing a sensitivity analysis. For purposes of this disclosure, a significant portion of the liabilities relating to insurance contracts is excluded, as discussed further below. This analysis estimates the potential changes in estimated fair value based on a hypothetical 10% change (increase or decrease) in interest rates, foreign currency exchange rates and equity market prices. We believe that a 10% change (increase or decrease) in these market rates and prices is reasonably possible in the near term. In performing the analysis summarized below, we used market rates at December 31, 2018. The sensitivity analysis separately calculates each of our market risk exposures (interest rate, foreign currency exchange rate and equity market) relating to our assets and liabilities. We modeled the impact of changes in market rates and prices on the estimated fair values of our market sensitive assets and liabilities as follows:

- the net present values of our interest rate sensitive exposures resulting from a 10% change (increase or decrease) in interest rates;
- the U.S. dollar equivalent estimated fair values of our foreign currency exposures due to a 10% change (increase in the value of the U.S. dollar compared to all foreign currencies or decrease in the value of the U.S. dollar compared to all foreign currencies) in foreign currency exchange rates; and
- the estimated fair value of our equity positions due to a 10% change (increase or decrease) in equity market prices.

The sensitivity analysis is an estimate and should not be viewed as predictive of our future financial performance. We cannot ensure that our actual losses in any particular period will not exceed the amounts indicated in the table below. Limitations related to this sensitivity analysis include:

- interest sensitive and foreign currency exchange sensitive liabilities do not include $203.3 billion, at carrying value, of insurance contracts. Management believes that the changes in the economic value of those contracts under changing interest rates and changing foreign currency exchange rates would offset a significant portion of the fair value changes of interest sensitive and foreign currency exchange rate sensitive assets;
- the market risk information is limited by the assumptions and parameters established in creating the related sensitivity analysis, including the impact of prepayment rates on mortgage loans;
- sensitivities do not include the impact on asset or liability valuation of changes in market liquidity or changes in market credit spreads;
- foreign currency risk is not isolated for certain embedded derivatives within host asset and liability contracts, as the risk on these instruments is reflected as equity;
- for the derivatives that qualify as hedges, and for certain other assets such as mortgage loans, the impact on reported earnings may be materially different from the change in market values;
- the analysis excludes liabilities pursuant to insurance contracts and real estate holdings; and
- the model assumes that the composition of assets and liabilities remains unchanged throughout the period.

Accordingly, we use such models as tools and not as substitutes for the experience and judgment of our management. Based on our analysis of the impact of a 10% change (increase or decrease) in market rates and prices, we have determined that such a change could have a material adverse effect on the estimated fair value of certain assets and liabilities from interest rate, foreign currency exchange rate and equity market exposures.

The table below illustrates the potential loss in estimated fair value for each market risk exposure of our market sensitive assets and liabilities at:

	December 31, 2018
	(In millions)
Interest rate risk	$ 5,656
Foreign currency exchange rate risk	$ 7,807
Equity market risk	$ (1)

The risk sensitivities derived used a 10% increase to interest rates, a 10% strengthening of the U.S. dollar against foreign currencies, and a 10% increase in equity prices. The potential losses in estimated fair value presented are for non-trading securities.

The table below provides additional detail regarding the potential loss in estimated fair value of our interest sensitive financial instruments due to a 10% increase in interest rates by type of asset or liability at:

	December 31, 2018		
	Notional Amount	Estimated Fair Value (1)	Assuming a 10% Increase in Interest Rates
		(In millions)	
Assets			
Fixed maturity securities AFS		$ 298,265	$ (5,180)
Equity securities		$ 1,440	—
FVO Securities		$ 871	(8)
Mortgage loans		$ 76,379	(816)
Policy loans		$ 11,366	(131)
Short-term investments		$ 3,937	(5)
Other invested assets		$ 1,413	—
Cash and cash equivalents		$ 15,821	—
Accrued investment income		$ 3,582	—
Premiums, reinsurance and other receivables		$ 3,797	(23)
Other assets		$ 350	(4)
Embedded derivatives within asset host contracts (2)		$ 71	—
Total assets			$ (6,167)
Liabilities (3)			
Policyholder account balances		$ 110,313	$ 757
Payables for collateral under securities loaned and other transactions		$ 24,794	—
Short-term debt		$ 268	—
Long-term debt		$ 13,611	342
Collateral financing arrangement		$ 853	—
Junior subordinated debt securities		$ 3,738	104
Other liabilities		$ 3,518	68
Embedded derivatives within liability host contracts (2)		$ 810	161
Total liabilities			$ 1,432
Derivative Instruments			
Interest rate swaps	$ 60,852	$ 3,958	$ (565)
Interest rate floors	$ 12,701	$ 102	(26)
Interest rate caps	$ 54,575	$ 153	62
Interest rate futures	$ 2,353	$ (2)	8
Interest rate options	$ 26,690	$ 416	(91)
Interest rate forwards	$ 3,256	$ (230)	(121)
Interest rate total return swaps	$ 1,048	$ 31	(54)
Synthetic GICs	$ 25,700	$ —	—
Foreign currency swaps	$ 48,552	$ 445	(139)
Foreign currency forwards	$ 16,517	$ (28)	22
Currency futures	$ 847	$ 4	—
Currency options	$ 7,177	$ (192)	(1)
Credit default swaps	$ 13,294	$ 68	—
Equity futures	$ 2,992	$ (64)	(1)
Equity index options	$ 27,707	$ 334	(15)
Equity variance swaps	$ 2,269	$ (47)	—
Equity total return swaps	$ 929	$ 91	—
Total derivative instruments			$ (921)
Net Change			$ (5,656)

(1) Separate account assets and liabilities and Unit-linked investments and associated policyholder account balances, which are interest rate sensitive, are not included herein as any interest rate risk is borne by the contractholder, notwithstanding any general account guarantees which are included within embedded derivatives (see footnote (2) below) or included within future policy benefits and other policy-related balances (see footnote (3) below). FVO Securities and long-term debt exclude $4 million and $5 million, respectively, related to CSEs.

(2) Embedded derivatives are recognized on the consolidated balance sheet in the same caption as the host contract.

(3) Excludes $203.3 billion of liabilities, at carrying value, pursuant to insurance contracts reported within future policy benefits and other policy-related balances. These liabilities would economically offset a significant portion of the net change in fair value of our financial instruments resulting from a 10% increase in interest rates.

Sensitivity to rising interest rates decreased $206 million, or 4%, to $5.7 billion at December 31, 2018 from $5.9 billion at December 31, 2017.

The table below provides additional detail regarding the potential loss in estimated fair value of our portfolio due to a 10% increase in the U.S. dollar compared to all foreign currencies at:

	December 31, 2018		
	Notional Amount	Estimated Fair Value (1)	Assuming a 10% Increase in the Foreign Exchange Rate
		(In millions)	
Assets			
Fixed maturity securities AFS		$ 298,265	$ (9,560)
Equity securities		$ 1,440	(47)
FVO Securities		$ 871	(88)
Mortgage loans		$ 76,379	(856)
Policy loans		$ 11,366	(161)
Short-term investments		$ 3,937	(329)
Other invested assets		$ 1,413	(264)
Cash and cash equivalents		$ 15,821	(472)
Accrued investment income		$ 3,582	(94)
Premiums, reinsurance and other receivables		$ 3,797	(101)
Other assets		$ 350	(18)
Embedded derivatives within asset host contracts (2)		$ 71	(7)
Total assets			$ (11,997)
Liabilities (3)			
Policyholder account balances		$ 110,313	$ 3,453
Payables for collateral under securities loaned and other transactions		$ 24,794	136
Long-term debt		$ 13,611	106
Other liabilities		$ 3,518	20
Embedded derivatives within liability host contracts (2)		$ 810	61
Total liabilities			$ 3,776
Derivative Instruments			
Interest rate swaps	$ 60,852	$ 3,958	$ (71)
Interest rate floors	$ 12,701	$ 102	—
Interest rate caps	$ 54,575	$ 153	—
Interest rate futures	$ 2,353	$ (2)	—
Interest rate options	$ 26,690	$ 416	(21)
Interest rate forwards	$ 3,256	$ (230)	1
Interest rate total return swaps	$ 1,048	$ 31	—
Synthetic GICs	$ 25,700	$ —	—
Foreign currency swaps	$ 48,552	$ 445	1,037
Foreign currency forwards	$ 16,517	$ (28)	(769)
Currency futures	$ 847	$ 4	(87)
Currency options	$ 7,177	$ (192)	319
Credit default swaps	$ 13,294	$ 68	(4)
Equity futures	$ 2,992	$ (64)	—
Equity index options	$ 27,707	$ 334	9
Equity variance swaps	$ 2,269	$ (47)	—
Equity total return swaps	$ 929	$ 91	—
Total derivative instruments			$ 414
Net Change			$ (7,807)

(1) Does not necessarily represent those financial instruments solely subject to foreign currency exchange rate risk. Separate account assets and liabilities and Unit-linked investments and associated policyholder account balances, which are foreign currency exchange rate sensitive, are not included herein as any foreign currency exchange rate risk is borne by the contractholder, notwithstanding any general account guarantees which are included within embedded derivatives (see footnote (2) below) or included within future policy benefits and other policy-related balances (see footnote (3) below). FVO Securities and long-term debt exclude $4 million and $5 million, respectively, related to CSEs.

(2) Embedded derivatives are recognized on the consolidated balance sheet in the same caption as the host contract.

(3) Excludes $203.3 billion of liabilities, at carrying value, pursuant to insurance contracts reported within future policy benefits and other policy-related balances. These liabilities would economically offset a significant portion of the net change in fair value of our financial instruments resulting from a 10% appreciation in the U.S. dollar relative to all other currencies.

Sensitivity to foreign currency exchange rates decreased $60 million to $7.8 billion at December 31, 2018 from $7.9 billion at December 31, 2017. These sensitivities exclude those liabilities, at carrying value, pursuant to insurance contracts reported within future policy benefits and other policy-related balances. These liabilities would economically offset a significant portion of the net change in fair value of our financial instruments resulting from a 10% appreciation in the U.S. dollar relative to all other currencies.

The table below provides additional detail regarding the potential loss in estimated fair value of our portfolio due to a 10% increase in equity prices by type of asset or liability at:

	December 31, 2018		
	Notional Amount	Estimated Fair Value (1)	Assuming a 10% Increase in Equity Prices
		(In millions)	
Assets			
Equity securities		$ 1,440	$ 144
FVO Securities		$ 871	33
Embedded derivatives within asset host contracts (2)		$ 71	—
Total assets			$ 177
Liabilities (3)			
Policyholder account balances		$ 110,313	$ —
Embedded derivatives within liability host contracts (2)		$ 810	329
Total liabilities			$ 329
Derivative Instruments			
Interest rate swaps	$ 60,852	$ 3,958	$ —
Interest rate floors	$ 12,701	$ 102	—
Interest rate caps	$ 54,575	$ 153	—
Interest rate futures	$ 2,353	$ (2)	—
Interest rate options	$ 26,690	$ 416	—
Interest rate forwards	$ 3,256	$ (230)	—
Interest rate total return swaps	$ 1,048	$ 31	—
Synthetic GICs	$ 25,700	$ —	—
Foreign currency swaps	$ 48,552	$ 445	—
Foreign currency forwards	$ 16,517	$ (28)	—
Currency futures	$ 847	$ 4	—
Currency options	$ 7,177	$ (192)	—
Credit default swaps	$ 13,294	$ 68	—
Equity futures	$ 2,992	$ (64)	(227)
Equity index options	$ 27,707	$ 334	(198)
Equity variance swaps	$ 2,269	$ (47)	1
Equity total return swaps	$ 929	$ 91	(81)
Total derivative instruments			$ (505)
Net Change			$ 1

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(1) Does not necessarily represent those financial instruments solely subject to equity price risk. Additionally, separate account assets and liabilities and Unit-linked investments and associated policyholder account balances, which are equity market sensitive, are not included herein as any equity market risk is borne by the contractholder, notwithstanding any general account guarantees which are included within embedded derivatives (see footnote (2) below) or included within future policy benefits and other policy-related balances (see footnote (3) below).

(2) Embedded derivatives are recognized on the consolidated balance sheet in the same caption as the host contract.

(3) Excludes $203.3 billion of liabilities, at carrying value, pursuant to insurance contracts reported within future policy benefits and other policy-related balances.

As of December 31, 2018, sensitivity to a 10% equity market increase was $1 million. This compares to a $71 million sensitivity to a 10% equity market decrease at December 31, 2017.

Item 8. Financial Statements and Supplementary Data

Index to Consolidated Financial Statements, Notes and Schedules

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of MetLife, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of MetLife, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and the schedules listed in the Index to Consolidated Financial Statements, Notes and Schedules (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 21, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP
New York, New York
February 21, 2019

We have served as the Company's auditor since at least 1968; however, an earlier year could not be reliably determined.

MetLife, Inc.

Consolidated Balance Sheets
December 31, 2018 and 2017

(In millions, except share and per share data)

	2018	2017
Assets		
Investments:		
Fixed maturity securities available-for-sale, at estimated fair value (amortized cost: $286,816 and $286,069, respectively)	$ 298,265	$ 308,931
Equity securities, at estimated fair value	1,440	2,513
Contractholder-directed equity securities and fair value option securities, at estimated fair value (includes $4 and $6, respectively, relating to variable interest entities)	12,616	16,745
Mortgage loans (net of valuation allowances of $342 and $314, respectively; includes $299 and $520, respectively, under the fair value option)	75,752	68,731
Policy loans	9,699	9,669
Real estate and real estate joint ventures (includes $0 and $25, respectively, of real estate held-for-sale)	9,698	9,637
Other limited partnership interests	6,613	5,708
Short-term investments, principally at estimated fair value	3,937	4,870
Other invested assets (includes $141 and $125, respectively, relating to variable interest entities)	18,190	17,263
Total investments	436,210	444,067
Cash and cash equivalents, principally at estimated fair value (includes $52 and $12, respectively, relating to variable interest entities)	15,821	12,701
Accrued investment income	3,582	3,524
Premiums, reinsurance and other receivables (includes $3 and $3, respectively, relating to variable interest entities)	19,644	18,423
Deferred policy acquisition costs and value of business acquired	18,895	18,419
Goodwill	9,422	9,590
Other assets (includes $2 and $2, respectively, relating to variable interest entities)	8,408	8,167
Separate account assets	175,556	205,001
Total assets	$ 687,538	$ 719,892
Liabilities and Equity		
Liabilities		
Future policy benefits	$ 186,780	$ 177,974
Policyholder account balances	183,693	182,518
Other policy-related balances	16,529	15,515
Policyholder dividends payable	677	682
Policyholder dividend obligation	428	2,121
Payables for collateral under securities loaned and other transactions	24,794	25,723
Short-term debt	268	477
Long-term debt (includes $5 and $6, respectively, at estimated fair value, relating to variable interest entities)	12,829	15,686
Collateral financing arrangement	1,060	1,121
Junior subordinated debt securities	3,147	3,144
Current income tax payable	441	311
Deferred income tax liability	5,414	6,767
Other liabilities (includes $1 and $3, respectively, relating to variable interest entities)	22,964	23,982
Separate account liabilities	175,556	205,001
Total liabilities	634,580	661,022
Contingencies, Commitments and Guarantees (Note 20)		
Equity		
MetLife, Inc.'s stockholders' equity:		
Preferred stock, par value $0.01 per share; $3,405 and $2,100 aggregate liquidation preference, respectively	—	—
Common stock, par value $0.01 per share; 3,000,000,000 shares authorized; 1,171,824,242 and 1,168,710,101 shares issued, respectively; 958,613,542 and 1,043,588,396 shares outstanding, respectively	12	12
Additional paid-in capital	32,474	31,111
Retained earnings	28,926	26,527
Treasury stock, at cost; 213,210,700 and 125,121,705 shares, respectively	(10,393)	(6,401)
Accumulated other comprehensive income (loss)	1,722	7,427
Total MetLife, Inc.'s stockholders' equity	52,741	58,676
Noncontrolling interests	217	194
Total equity	52,958	58,870
Total liabilities and equity	$ 687,538	$ 719,892

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Operations
For the Years Ended December 31, 2018, 2017 and 2016

(In millions, except per share data)

	2018	2017	2016
Revenues			
Premiums	$ 43,840	$ 38,992	$ 37,202
Universal life and investment-type product policy fees	5,502	5,510	5,483
Net investment income	16,166	17,363	16,790
Other revenues	1,880	1,341	1,685
Net investment gains (losses):			
Other-than-temporary impairments on fixed maturity securities available-for-sale	(40)	(11)	(96)
Other-than-temporary impairments on fixed maturity securities available-for-sale transferred to other comprehensive income (loss)	—	1	(11)
Other net investment gains (losses)	(258)	(298)	424
Total net investment gains (losses)	(298)	(308)	317
Net derivative gains (losses)	851	(590)	(690)
Total revenues	67,941	62,308	60,787
Expenses			
Policyholder benefits and claims	42,656	38,313	36,358
Interest credited to policyholder account balances	4,013	5,607	5,176
Policyholder dividends	1,251	1,231	1,223
Other expenses	13,714	13,621	13,749
Total expenses	61,634	58,772	56,506
Income (loss) from continuing operations before provision for income tax	6,307	3,536	4,281
Provision for income tax expense (benefit)	1,179	(1,470)	693
Income (loss) from continuing operations, net of income tax	5,128	5,006	3,588
Income (loss) from discontinued operations, net of income tax	—	(986)	(2,734)
Net income (loss)	5,128	4,020	854
Less: Net income (loss) attributable to noncontrolling interests	5	10	4
Net income (loss) attributable to MetLife, Inc.	5,123	4,010	850
Less: Preferred stock dividends	141	103	103
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 4,982	$ 3,907	$ 747
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders per common share:			
Basic	$ 4.95	$ 4.57	$ 3.16
Diluted	$ 4.91	$ 4.53	$ 3.13
Net income (loss) available to MetLife, Inc.'s common shareholders per common share:			
Basic	$ 4.95	$ 3.65	$ 0.68
Diluted	$ 4.91	$ 3.62	$ 0.67

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Comprehensive Income (Loss)
For the Years Ended December 31, 2018, 2017 and 2016

(In millions)

	2018	2017	2016
Net income (loss)	$ 5,128	$ 4,020	$ 854
Other comprehensive income (loss):			
Unrealized investment gains (losses), net of related offsets	(8,719)	4,623	796
Unrealized gains (losses) on derivatives	674	(1,165)	573
Foreign currency translation adjustments	(587)	767	(363)
Defined benefit plans adjustment	263	144	131
Other comprehensive income (loss), before income tax	(8,369)	4,369	1,137
Income tax (expense) benefit related to items of other comprehensive income (loss)	1,754	(984)	(450)
Other comprehensive income (loss), net of income tax	(6,615)	3,385	687
Comprehensive income (loss)	(1,487)	7,405	1,541
Less: Comprehensive income (loss) attributable to noncontrolling interest, net of income tax	7	14	92
Comprehensive income (loss) attributable to MetLife, Inc.	$ (1,494)	$ 7,391	$ 1,449

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Equity
For the Years Ended December 31, 2018, 2017 and 2016

(In millions)

	Preferred Stock	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock at Cost	Accumulated Other Comprehensive Income (Loss)	Total MetLife, Inc.'s Stockholders' Equity	Noncontrolling Interests	Total Equity
Balance at December 31, 2015	$ —	$ 12	$ 30,749	$ 35,672	$ (3,102)	$ 4,767	$ 68,098	$ 470	$ 68,568
Treasury stock acquired in connection with share repurchases					(372)		(372)		(372)
Stock-based compensation			195				195		195
Dividends on preferred stock				(103)			(103)		(103)
Dividends on common stock				(1,736)			(1,736)		(1,736)
Change in equity of noncontrolling interests							—	(391)	(391)
Net income (loss)				850			850	4	854
Other comprehensive income (loss), net of income tax						599	599	88	687
Balance at December 31, 2016	—	12	30,944	34,683	(3,474)	5,366	67,531	171	67,702
Treasury stock acquired in connection with share repurchases					(2,927)		(2,927)		(2,927)
Stock-based compensation			167				167		167
Dividends on preferred stock				(103)			(103)		(103)
Dividends on common stock				(1,717)			(1,717)		(1,717)
Distribution of Brighthouse, net of income tax (Note 3)				(10,346)		(1,320)	(11,666)		(11,666)
Change in equity of noncontrolling interests							—	9	9
Net income (loss)				4,010			4,010	10	4,020
Other comprehensive income (loss), net of income tax						3,381	3,381	4	3,385
Balance at December 31, 2017	—	12	31,111	26,527	(6,401)	7,427	58,676	194	58,870
Cumulative effects of changes in accounting principles, net of income tax (Note 1)				(905)		912	7		7
Balance at January 1, 2018	—	12	31,111	25,622	(6,401)	8,339	58,683	194	58,877
Preferred stock issuance			1,274				1,274		1,274
Treasury stock acquired in connection with share repurchases					(3,992)		(3,992)		(3,992)
Stock-based compensation			89				89		89
Dividends on preferred stock				(141)			(141)		(141)
Dividends on common stock				(1,678)			(1,678)		(1,678)
Change in equity of noncontrolling interests							—	16	16
Net income (loss)				5,123			5,123	5	5,128
Other comprehensive income (loss), net of income tax						(6,617)	(6,617)	2	(6,615)
Balance at December 31, 2018	$ —	$ 12	$ 32,474	$ 28,926	$ (10,393)	$ 1,722	$ 52,741	$ 217	$ 52,958

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Cash Flows
For the Years Ended December 31, 2018, 2017 and 2016

(In millions)

	2018	2017	2016
Cash flows from operating activities			
Net income (loss)	$ 5,128	$ 4,020	$ 854
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization expenses	628	795	652
Amortization of premiums and accretion of discounts associated with investments, net	(1,013)	(1,044)	(1,110)
(Gains) losses on investments and from sales of businesses, net	298	363	(183)
(Gains) losses on derivatives, net	(207)	3,610	8,779
(Income) loss from equity method investments, net of dividends or distributions	251	194	475
Interest credited to policyholder account balances	4,013	6,260	6,282
Universal life and investment-type product policy fees	(5,502)	(7,708)	(9,207)
Goodwill impairment	—	—	260
Change in contractholder-directed equity securities and fair value option securities	2,212	(436)	111
Change in accrued investment income	(121)	(280)	(31)
Change in premiums, reinsurance and other receivables	(1,809)	(991)	(2,158)
Change in deferred policy acquisition costs and value of business acquired, net	(249)	(693)	(937)
Change in income tax	940	(2,796)	(1,522)
Change in other assets	260	691	3,248
Change in insurance-related liabilities and policy-related balances	7,454	8,511	6,321
Change in other liabilities	(483)	1,603	2,801
Other, net	(62)	184	139
Net cash provided by (used in) operating activities	11,738	12,283	14,774
Cash flows from investing activities			
Sales, maturities and repayments of:			
Fixed maturity securities available-for-sale	106,677	95,945	150,658
Equity securities	342	1,433	1,241
Mortgage loans	9,918	10,353	12,977
Real estate and real estate joint ventures	1,227	972	826
Other limited partnership interests	675	1,082	1,542
Purchases and originations of:			
Fixed maturity securities available-for-sale	(105,401)	(105,683)	(146,397)
Equity securities	(235)	(920)	(1,006)
Mortgage loans	(17,059)	(14,374)	(21,017)
Real estate and real estate joint ventures	(1,118)	(1,446)	(1,515)
Other limited partnership interests	(1,406)	(1,486)	(1,313)
Cash received in connection with freestanding derivatives	3,778	5,315	4,259
Cash paid in connection with freestanding derivatives	(4,173)	(8,696)	(6,963)
Cash disposed due to distribution of Brighthouse	—	(663)	—
Sales of businesses, net of cash and cash equivalents disposed of $0, $0 and $135, respectively	—	—	156
Purchases of businesses	—	(211)	—
Net change in policy loans	(37)	(67)	195
Net change in short-term investments	870	2,087	1,270
Net change in other invested assets	340	(171)	(306)
Other, net	(32)	(346)	(457)
Net cash provided by (used in) investing activities	$ (5,634)	$ (16,876)	$ (5,850)

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Cash Flows — (continued)
For the Years Ended December 31, 2018, 2017 and 2016

(In millions)

	2018	2017	2016
Cash flows from financing activities			
Policyholder account balances:			
Deposits	$ 92,327	$ 88,511	$ 88,188
Withdrawals	(88,061)	(82,380)	(83,263)
Payables for collateral under securities loaned and other transactions:			
Net change in payables for collateral under securities loaned and other transactions	(821)	903	(3,636)
Cash received for other transactions with tenors greater than three months	200	—	—
Long-term debt issued	24	3,657	—
Long-term debt repaid	(1,871)	(1,073)	(1,279)
Collateral financing arrangements repaid	(61)	(2,951)	(68)
Distribution of Brighthouse	—	(2,793)	—
Financing element on certain derivative instruments and other derivative related transactions, net	144	(151)	(1,367)
Treasury stock acquired in connection with share repurchases	(3,992)	(2,927)	(372)
Preferred stock issued, net of issuance costs	1,274	—	—
Dividends on preferred stock	(141)	(103)	(103)
Dividends on common stock	(1,678)	(1,717)	(1,736)
Other, net	(145)	118	139
Net cash provided by (used in) financing activities	(2,801)	(906)	(3,497)
Effect of change in foreign currency exchange rates on cash and cash equivalents balances	(183)	323	(302)
Change in cash and cash equivalents	3,120	(5,176)	5,125
Cash and cash equivalents, beginning of year	12,701	17,877	12,752
Cash and cash equivalents, end of year	$ 15,821	$ 12,701	$ 17,877
Cash and cash equivalents, of disposed subsidiary, beginning of year	$ —	$ 5,226	$ 1,570
Cash and cash equivalents, of disposed subsidiary, end of year	$ —	$ —	$ 5,226
Cash and cash equivalents, from continuing operations, beginning of year	$ 12,701	$ 12,651	$ 11,182
Cash and cash equivalents, from continuing operations, end of year	$ 15,821	$ 12,701	$ 12,651
Supplemental disclosures of cash flow information:			
Net cash paid (received) for:			
Interest	$ 1,130	$ 1,118	$ 1,202
Income tax	$ 1,935	$ 1,530	$ 672
Non-cash transactions			
Fixed maturity securities available-for-sale received in connection with pension risk transfer transactions	$ 3,016	$ —	$ 985
Brighthouse common stock exchange transaction (Note 3):			
Reduction of long-term debt	$ 944	$ —	$ —
Reduction of fair value option securities	$ 1,030	$ —	$ —
Disposal of Brighthouse (See Note 3):			
Assets disposed	$ —	$ 225,502	$ —
Liabilities disposed	—	(210,999)	—
Net assets disposed	—	14,503	—
Cash disposed	—	(3,456)	—
Net non-cash disposed	$ —	$ 11,047	$ —
Reduction of fixed maturity securities available-for-sale in connection with a reinsurance transaction	$ —	$ —	$ 224
Reduction of other invested assets in connection with a reinsurance transaction	$ —	$ —	$ 676
Deconsolidation of operating joint venture:			
Reduction of fixed maturity securities available-for-sale	$ —	$ —	$ 917
Reduction of noncontrolling interests	$ —	$ —	$ 373

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Notes to the Consolidated Financial Statements

1. Business, Basis of Presentation and Summary of Significant Accounting Policies

Business

"MetLife" and the "Company" refer to MetLife, Inc., a Delaware corporation incorporated in 1999, its subsidiaries and affiliates. MetLife is one of the world's leading financial services companies, providing insurance, annuities, employee benefits and asset management. MetLife is organized into five segments: U.S.; Asia; Latin America; Europe, the Middle East and Africa ("EMEA"); and MetLife Holdings.

Basis of Presentation

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to adopt accounting policies and make estimates and assumptions that affect amounts reported on the consolidated financial statements. In applying these policies and estimates, management makes subjective and complex judgments that frequently require assumptions about matters that are inherently uncertain. Many of these policies, estimates and related judgments are common in the insurance and financial services industries; others are specific to the Company's business and operations. Actual results could differ from these estimates.

Consolidation

The accompanying consolidated financial statements include the accounts of MetLife, Inc. and its subsidiaries, as well as partnerships and joint ventures in which the Company has control, and variable interest entities ("VIEs") for which the Company is the primary beneficiary. Intercompany accounts and transactions have been eliminated.

Effective January 1, 2016, the Company converted its Japan operations from a fiscal year cutoff of November 30th to calendar year-end reporting. The elimination of a one-month reporting lag of a subsidiary is considered a change in accounting principle and requires retrospective application. While the Company believes that eliminating the lag in the reporting of its Japan operations was preferable in order to consistently reflect events, economic conditions and global trends on the financial statements, the Company determined that it was impracticable to apply the effects of the lag elimination to financial reporting periods prior to January 1, 2015. The effect of not retroactively applying this change in accounting, however, was not material to the 2016 consolidated financial statements. Therefore, the Company reported the cumulative effect of the change in accounting principle in net income for the year ended December 31, 2016.

Discontinued Operations

The results of operations of a component of the Company that has either been disposed of or is classified as held-for-sale are reported in discontinued operations if certain criteria are met. A disposal of a component is reported in discontinued operations if the disposal represents a strategic shift that has or will have a major effect on the Company's operations and financial results.

On August 4, 2017, MetLife, Inc. completed the separation of Brighthouse Financial, Inc. and its subsidiaries ("Brighthouse") through a distribution of 96,776,670 shares of Brighthouse Financial, Inc. common stock to the MetLife, Inc. common shareholders (the "Separation"). The results of Brighthouse are reflected in MetLife, Inc.'s consolidated financial statements as discontinued operations and, therefore, are presented as income (loss) from discontinued operations on the consolidated statements of operations. Intercompany transactions between the Company and Brighthouse prior to the Separation have been eliminated. Transactions between the Company and Brighthouse after the Separation are reflected in continuing operations for the Company. See Note 3 for information on discontinued operations and transactions with Brighthouse.

Separate Accounts

Separate accounts are established in conformity with insurance laws. Generally, the assets of the separate accounts cannot be used to settle the liabilities that arise from any other business of the Company. Separate account assets are subject to general account claims only to the extent the value of such assets exceeds the separate account liabilities. The Company reports separately, as assets and liabilities, investments held in separate accounts and liabilities of the separate accounts if:

- such separate accounts are legally recognized;
- assets supporting the contract liabilities are legally insulated from the Company's general account liabilities;
- investments are directed by the contractholder; and
- all investment performance, net of contract fees and assessments, is passed through to the contractholder.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

The Company reports separate account assets at their fair value which is based on the estimated fair values of the underlying assets comprising the individual separate account portfolios. Investment performance (including investment income, net investment gains (losses) and changes in unrealized gains (losses)) and the corresponding amounts credited to contractholders of such separate accounts are offset within the same line on the statements of operations. Separate accounts credited with a contractual investment return are combined on a line-by-line basis with the Company's general account assets, liabilities, revenues and expenses and the accounting for these investments is consistent with the methodologies described herein for similar financial instruments held within the general account. Unit-linked separate account investments that are directed by contractholders but do not meet one or more of the other above criteria are included in fair value option ("FVO") securities ("FVO Securities").

The Company's revenues reflect fees charged to the separate accounts, including mortality charges, risk charges, policy administration fees, investment management fees and surrender charges. Such fees are included in universal life and investment-type product policy fees on the statements of operations.

Reclassifications

Certain amounts in the prior years' consolidated financial statements and related footnotes thereto have been reclassified to conform to the current year presentation as discussed throughout the Notes to the Consolidated Financial Statements.

Summary of Significant Accounting Policies

The following are the Company's significant accounting policies with references to notes providing additional information on such policies and critical accounting estimates relating to such policies.

Accounting Policy	Note
Insurance	4
Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles	5
Reinsurance	6
Investments	8
Derivatives	9
Fair Value	10
Goodwill	11
Employee Benefit Plans	17
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Insurance

Future Policy Benefit Liabilities and Policyholder Account Balances

The Company establishes liabilities for amounts payable under insurance policies. Generally, amounts are payable over an extended period of time and related liabilities are calculated as the present value of future expected benefits to be paid, reduced by the present value of future expected premiums. Such liabilities are established based on methods and underlying assumptions in accordance with GAAP and applicable actuarial standards. Principal assumptions used in the establishment of liabilities for future policy benefits are mortality, morbidity, policy lapse, renewal, retirement, disability incidence, disability terminations, investment returns, inflation, expenses and other contingent events as appropriate to the respective product type and geographical area. These assumptions are established at the time the policy is issued and are intended to estimate the experience for the period the policy benefits are payable. Utilizing these assumptions, liabilities are established on a block of business basis. For long duration insurance contracts, assumptions such as mortality, morbidity and interest rates are "locked in" upon the issuance of new business. However, significant adverse changes in experience on such contracts may require the establishment of premium deficiency reserves. Such reserves are determined based on the then current assumptions and do not include a provision for adverse deviation.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Premium deficiency reserves may also be established for short-duration contracts to provide for expected future losses. These reserves are based on actuarial estimates of the amount of loss inherent in that period, including losses incurred for which claims have not been reported. The provisions for unreported claims are calculated using studies that measure the historical length of time between the incurred date of a claim and its eventual reporting to the Company. Anticipated investment income is considered in the calculation of premium deficiency losses for short-duration contracts.

Liabilities for universal and variable life policies with secondary guarantees ("ULSG") and paid-up guarantees are determined by estimating the expected value of death benefits payable when the account balance is projected to be zero and recognizing those benefits ratably over the life of the contract based on total expected assessments. The assumptions used in estimating the secondary and paid-up guarantee liabilities are consistent with those used for amortizing deferred policy acquisition costs ("DAC"), and are thus subject to the same variability and risk as further discussed herein. The assumptions of investment performance and volatility for variable products are consistent with historical experience of appropriate underlying equity indices, such as the S&P Global Ratings ("S&P") 500 Index. The benefits used in calculating the liabilities are based on the average benefits payable over a range of scenarios.

The Company regularly reviews its estimates of liabilities for future policy benefits and compares them with its actual experience. Differences result in changes to the liability balances with related charges or credits to benefit expenses in the period in which the changes occur.

Policyholder account balances relate to contracts or contract features where the Company has no significant insurance risk.

The Company issues directly and assumes through reinsurance variable annuity products with guaranteed minimum benefits that provide the policyholder a minimum return based on their initial deposit adjusted for withdrawals. These guarantees are accounted for as insurance liabilities or as embedded derivatives depending on how and when the benefit is paid. Specifically, a guarantee is accounted for as an embedded derivative if a guarantee is paid without requiring (i) the occurrence of a specific insurable event, or (ii) the policyholder to annuitize. Alternatively, a guarantee is accounted for as an insurance liability if the guarantee is paid only upon either (i) the occurrence of a specific insurable event, or (ii) annuitization. In certain cases, a guarantee may have elements of both an insurance liability and an embedded derivative and in such cases the guarantee is split and accounted for under both models.

Guarantees accounted for as insurance liabilities in future policy benefits include guaranteed minimum death benefits ("GMDBs"), the life-contingent portion of guaranteed minimum withdrawal benefits ("GMWBs"), elective annuitizations of guaranteed minimum income benefits ("GMIBs"), and the life contingent portion of GMIBs that require annuitization when the account balance goes to zero.

Guarantees accounted for as embedded derivatives in policyholder account balances include guaranteed minimum accumulation benefits ("GMABs"), the non-life contingent portion of GMWBs and certain non-life contingent portions of GMIBs. At inception, the Company attributes to the embedded derivative a portion of the projected future guarantee fees to be collected from the policyholder equal to the present value of projected future guaranteed benefits. Any additional fees represent "excess" fees and are reported in universal life and investment-type product policy fees.

Other Policy-Related Balances

Other policy-related balances include policy and contract claims, premiums received in advance, unearned revenue liabilities, obligations assumed under structured settlement assignments, policyholder dividends due and unpaid, policyholder dividends left on deposit and negative value of business acquired ("VOBA").

The liability for policy and contract claims generally relates to incurred but not reported ("IBNR") death, disability, long-term care and dental claims, as well as claims which have been reported but not yet settled. The liability for these claims is based on the Company's estimated ultimate cost of settling all claims. The Company derives estimates for the development of IBNR claims principally from analyses of historical patterns of claims by business line. The methods used to determine these estimates are continually reviewed. Adjustments resulting from this continuous review process and differences between estimates and payments for claims are recognized in policyholder benefits and claims expense in the period in which the estimates are changed or payments are made.

The Company accounts for the prepayment of premiums on its individual life, group life and health contracts as premiums received in advance and applies the cash received to premiums when due.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

The unearned revenue liability relates to universal life-type and investment-type products and represents policy charges for services to be provided in future periods. The charges are deferred as unearned revenue and amortized using the product's estimated gross profits and margins, similar to DAC as discussed further herein. Such amortization is recorded in universal life and investment-type product policy fees.

See Note 3 for additional information on obligations assumed under structured settlement assignments.

See "— Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles" for a discussion of negative VOBA.

Recognition of Insurance Revenues and Deposits

Premiums related to traditional life, annuity contracts with life contingencies, long-duration accident & health, and credit insurance policies are recognized as revenues when due from policyholders. Policyholder benefits and expenses are provided to recognize profits over the estimated lives of the insurance policies. When premiums are due over a significantly shorter period than the period over which benefits are provided, any excess profit is deferred and recognized into earnings in a constant relationship to insurance in-force or, for annuities, the amount of expected future policy benefit payments.

Premiums related to short-duration non-medical health and disability, accident & health, and certain credit insurance contracts are recognized on a pro rata basis over the applicable contract term.

Deposits related to universal life-type and investment-type products are credited to policyholder account balances. Revenues from such contracts consist of fees for mortality, policy administration and surrender charges and are recorded in universal life and investment-type product policy fees in the period in which services are provided. Amounts that are charged to earnings include interest credited and benefit claims incurred in excess of related policyholder account balances.

Premiums related to property & casualty contracts are recognized as revenue on a pro rata basis over the applicable contract term. Unearned premiums, representing the portion of premium written related to the unexpired coverage, are also included in future policy benefits.

All revenues and expenses are presented net of reinsurance as applicable.

Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles

The Company incurs significant costs in connection with acquiring new and renewal insurance business. Costs that are related directly to the successful acquisition or renewal of insurance contracts are capitalized as DAC. Such costs include:

- incremental direct costs of contract acquisition, such as commissions;
- the portion of an employee's total compensation and benefits related to time spent selling, underwriting or processing the issuance of new and renewal insurance business only with respect to actual policies acquired or renewed;
- other essential direct costs that would not have been incurred had a policy not been acquired or renewed; and
- the costs of direct-response advertising, the primary purpose of which is to elicit sales to customers who could be shown to have responded specifically to the advertising and that results in probable future benefits.

All other acquisition-related costs, including those related to general advertising and solicitation, market research, agent training, product development, unsuccessful sales and underwriting efforts, as well as all indirect costs, are expensed as incurred.

VOBA is an intangible asset resulting from a business combination that represents the excess of book value over the estimated fair value of acquired insurance, annuity, and investment-type contracts in-force at the acquisition date. The estimated fair value of the acquired liabilities is based on projections, by each block of business, of future policy and contract charges, premiums, mortality and morbidity, separate account performance, surrenders, operating expenses, investment returns, nonperformance risk adjustment and other factors. Actual experience on the purchased business may vary from these projections.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

DAC and VOBA are amortized as follows:

Products:	In proportion to the following over estimated lives of the contracts:
• Nonparticipating and non-dividend-paying traditional contracts: • Term insurance • Nonparticipating whole life insurance • Traditional group life insurance • Non-medical health insurance • Accident & health insurance	Actual and expected future gross premiums.
• Participating, dividend-paying traditional contracts	Actual and expected future gross margins.
• Fixed and variable universal life contracts • Fixed and variable deferred annuity contracts	Actual and expected future gross profits.
• Credit insurance contracts • Property & casualty insurance contracts • Other short-duration contracts	Actual and future earned premiums.

See Note 5 for additional information on DAC and VOBA amortization. Amortization of DAC and VOBA is included in other expenses.

The recovery of DAC and VOBA is dependent upon the future profitability of the related business. DAC and VOBA are aggregated on the financial statements for reporting purposes.

The Company generally has two different types of sales inducements which are included in other assets: (i) the policyholder receives a bonus whereby the policyholder's initial account balance is increased by an amount equal to a specified percentage of the customer's deposit; and (ii) the policyholder receives a higher interest rate using a dollar cost averaging method than would have been received based on the normal general account interest rate credited. The Company defers sales inducements and amortizes them over the life of the policy using the same methodology and assumptions used to amortize DAC. The amortization of sales inducements is included in policyholder benefits and claims. Each year, or more frequently if circumstances indicate a potential recoverability issue exists, the Company reviews deferred sales inducements ("DSI") to determine the recoverability of the asset.

Value of distribution agreements acquired ("VODA") is reported in other assets and represents the present value of expected future profits associated with the expected future business derived from the distribution agreements acquired as part of a business combination. Value of customer relationships acquired ("VOCRA") is also reported in other assets and represents the present value of the expected future profits associated with the expected future business acquired through existing customers of the acquired company or business. The VODA and VOCRA associated with past business combinations are amortized over useful lives ranging from 10 to 40 years and such amortization is included in other expenses. Each year, or more frequently if circumstances indicate a possible impairment exists, the Company reviews VODA and VOCRA to determine whether the asset is impaired.

For certain acquired blocks of business, the estimated fair value of the in-force contract obligations exceeded the book value of assumed in-force insurance policy liabilities, resulting in negative VOBA, which is presented separately from VOBA as an additional insurance liability. The fair value of the in-force contract obligations is based on projections by each block of business. Negative VOBA is amortized over the policy period in proportion to the approximate consumption of losses included in the liability usually expressed in terms of insurance in-force or account value. Such amortization is recorded as an offset in other expenses.

Reinsurance

For each of its reinsurance agreements, the Company determines whether the agreement provides indemnification against loss or liability relating to insurance risk in accordance with applicable accounting standards. Cessions under reinsurance agreements do not discharge the Company's obligations as the primary insurer. The Company reviews all contractual features, including those that may limit the amount of insurance risk to which the reinsurer is subject or features that delay the timely reimbursement of claims.

For reinsurance of existing in-force blocks of long-duration contracts that transfer significant insurance risk, the difference, if any, between the amounts paid (received), and the liabilities ceded (assumed) related to the underlying contracts is considered the net cost of reinsurance at the inception of the reinsurance agreement. The net cost of reinsurance is recorded as an adjustment to DAC when there is a gain at inception on the ceding entity, and to other liabilities when there is a loss at inception. The net cost of reinsurance is recognized as a component of other expenses when there is a gain at inception, and as policyholder benefits and claims when there is a loss at inception and is subsequently amortized on a basis consistent with the methodology used for amortizing DAC related to the underlying reinsured contracts. Subsequent amounts paid (received) on the reinsurance of in-force blocks, as well as amounts paid (received) related to new business, are recorded as ceded (assumed) premiums; and ceded (assumed) premiums, reinsurance and other receivables (future policy benefits) are established.

For prospective reinsurance of short-duration contracts that meet the criteria for reinsurance accounting, amounts paid (received) are recorded as ceded (assumed) premiums and ceded (assumed) unearned premiums. Unearned premiums are reflected as a component of premiums, reinsurance and other receivables (future policy benefits). Such amounts are amortized through earned premiums over the remaining contract period in proportion to the amount of insurance protection provided. For retroactive reinsurance of short-duration contracts that meet the criteria of reinsurance accounting, amounts paid (received) in excess of the related insurance liabilities ceded (assumed) are recognized immediately as a loss and are reported in the appropriate line item within the statement of operations. Any gain on such retroactive agreement is deferred and is amortized as part of DAC, primarily using the recovery method.

Amounts currently recoverable under reinsurance agreements are included in premiums, reinsurance and other receivables and amounts currently payable are included in other liabilities. Assets and liabilities relating to reinsurance agreements with the same reinsurer may be recorded net on the balance sheet, if a right of offset exists within the reinsurance agreement. In the event that reinsurers do not meet their obligations to the Company under the terms of the reinsurance agreements, reinsurance recoverable balances could become uncollectible. In such instances, reinsurance recoverable balances are stated net of allowances for uncollectible reinsurance.

Premiums, fees and policyholder benefits and claims include amounts assumed under reinsurance agreements and are net of reinsurance ceded. Amounts received from reinsurers for policy administration are reported in other revenues. With respect to GMIBs, a portion of the directly written GMIBs are accounted for as insurance liabilities, but the associated reinsurance agreements contain embedded derivatives. These embedded derivatives are included in premiums, reinsurance and other receivables with changes in estimated fair value reported in policyholder benefits and claims.

If the Company determines that a reinsurance agreement does not expose the reinsurer to a reasonable possibility of a significant loss from insurance risk, the Company records the agreement using the deposit method of accounting. Deposits received are included in other liabilities and deposits made are included within premiums, reinsurance and other receivables. As amounts are paid or received, consistent with the underlying contracts, the deposit assets or liabilities are adjusted. Interest on such deposits is recorded as other revenues or other expenses, as appropriate. Periodically, the Company evaluates the adequacy of the expected payments or recoveries and adjusts the deposit asset or liability through other revenues or other expenses, as appropriate.

Investments

Net Investment Income and Net Investment Gains (Losses)

Income from investments is reported within net investment income, unless otherwise stated herein. Gains and losses on sales of investments, impairment losses and changes in valuation allowances are reported within net investment gains (losses), unless otherwise stated herein.

Fixed Maturity Securities

The majority of the Company's fixed maturity securities are classified as available-for-sale ("AFS") and are reported at their estimated fair value. Unrealized investment gains and losses on these securities are recorded as a separate component of other comprehensive income (loss) ("OCI"), net of policy-related amounts and deferred income taxes. All security transactions are recorded on a trade date basis. Sales of securities are determined on a specific identification basis.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Interest income and prepayment fees are recognized when earned. Interest income is recognized using an effective yield method giving effect to amortization of premium and accretion of discount, and is based on the estimated economic life of the securities, which for mortgage-backed and asset-backed securities considers the estimated timing and amount of prepayments of the underlying loans. See Note 8 "— Fixed Maturity Securities AFS — Methodology for Amortization of Premium and Accretion of Discount on Structured Securities." The amortization of premium and accretion of discount also takes into consideration call and maturity dates.

The Company periodically evaluates these securities for impairment. The assessment of whether impairments have occurred is based on management's case-by-case evaluation of the underlying reasons for the decline in estimated fair value, as well as an analysis of the gross unrealized losses by severity and/or age as described in Note 8 "— Evaluation of Fixed Maturity Securities AFS for OTTI and Evaluating Temporarily Impaired Fixed Maturity Securities AFS."

For securities in an unrealized loss position, an other-than-temporary impairment ("OTTI") is recognized in earnings within net investment gains (losses) when it is anticipated that the amortized cost will not be recovered. When either: (i) the Company has the intent to sell the security; or (ii) it is more likely than not that the Company will be required to sell the security before recovery, the OTTI recognized in earnings is the entire difference between the security's amortized cost and estimated fair value. If neither of these conditions exists, the difference between the amortized cost of the security and the present value of projected future cash flows expected to be collected is recognized as an OTTI in earnings ("credit loss"). If the estimated fair value is less than the present value of projected future cash flows expected to be collected, this portion of OTTI related to other-than-credit factors ("noncredit loss") is recorded in OCI.

Equity Securities

Equity securities are reported at their estimated fair value, with changes in estimated fair value included in net investment gains (losses). Sales of securities are determined on a specific identification basis. Dividends are recognized in net investment income when declared.

Contractholder-Directed Equity Securities and FVO Securities

Contractholder-directed equity securities and FVO Securities (collectively, "Unit-linked and FVO Securities") are investments for which the FVO has been elected, or are otherwise required to be carried at estimated fair value, and include:

- contractholder-directed investments supporting unit-linked variable annuity type liabilities ("Unit-linked investments") which do not qualify for presentation and reporting as separate account summary total assets and liabilities. These investments are primarily equity securities (including mutual funds) and, to a lesser extent, fixed maturity securities, short-term investments and cash and cash equivalents. The investment returns on these investments inure to contractholders and are offset by a corresponding change in policyholder account balances through interest credited to policyholder account balances;
- fixed maturity and equity securities held-for-investment by the general account to support asset and liability management strategies for certain insurance products and investments in certain separate accounts; and
- securities held by consolidated securitization entities ("CSEs").

At December 31, 2017, Unit-linked and FVO Securities also included the estimated fair value of the Brighthouse Financial, Inc. common stock held by the Company ("FVO Brighthouse Common Stock"). See Note 3.

Mortgage Loans

The Company disaggregates its mortgage loan investments into three portfolio segments: commercial, agricultural and residential. The accounting policies that are applicable to all portfolio segments are presented below and the accounting policies related to each of the portfolio segments are included in Note 8.

Mortgage loans are stated at unpaid principal balance, adjusted for any unamortized premium or discount, deferred fees or expenses, and are net of valuation allowances. Interest income and prepayment fees are recognized when earned. Interest income is recognized using an effective yield method giving effect to amortization of premium and accretion of discount.

Also included in mortgage loans are residential mortgage loans for which the FVO was elected, and which are stated at estimated fair value. Changes in estimated fair value are recognized in net investment income.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Policy Loans

Policy loans are stated at unpaid principal balances. Interest income is recorded as earned using the contractual interest rate. Generally, accrued interest is capitalized on the policy's anniversary date. Valuation allowances are not established for policy loans, as they are fully collateralized by the cash surrender value of the underlying insurance policies. Any unpaid principal and accrued interest is deducted from the cash surrender value or the death benefit prior to settlement of the insurance policy.

Real Estate

Real estate held-for-investment is stated at cost less accumulated depreciation. Depreciation is recorded on a straight-line basis over the estimated useful life of the asset (typically 20 to 55 years). Rental income is recognized on a straight-line basis over the term of the respective leases. The Company periodically reviews its real estate held-for-investment for impairment and tests for recoverability whenever events or changes in circumstances indicate the carrying value may not be recoverable. Properties whose carrying values are greater than their undiscounted cash flows are written down to their estimated fair value, which is generally computed using the present value of expected future cash flows discounted at a rate commensurate with the underlying risks.

Real estate for which the Company commits to a plan to sell within one year and actively markets in its current condition for a reasonable price in comparison to its estimated fair value is classified as held-for-sale. Real estate held-for-sale is stated at the lower of depreciated cost or estimated fair value less expected disposition costs and is not depreciated.

Real Estate Joint Ventures and Other Limited Partnership Interests

The Company uses the equity method of accounting for real estate joint ventures and other limited partnership interests ("investee") when it has more than a minor ownership interest or more than a minor influence over the investee's operations. The Company generally recognizes its share of the investee's earnings in net investment income on a three-month lag in instances where the investee's financial information is not sufficiently timely or when the investee's reporting period differs from the Company's reporting period.

The Company accounts for its interest in real estate joint ventures and other limited partnership interests in which it has virtually no influence over the investee's operations at fair value. Changes in estimated fair value of these investments are included in net investment gains (losses). Because of the nature and structure of these investments, they do not meet the characteristics of an equity security in accordance with applicable accounting standards.

The Company routinely evaluates its equity method investments for impairment. For equity method investees, the Company considers financial and other information provided by the investee, other known information and inherent risks in the underlying investments, as well as future capital commitments, in determining whether an impairment has occurred.

Short-term Investments

Short-term investments include highly liquid securities and other investments with remaining maturities of one year or less, but greater than three months, at the time of purchase. Securities included within short-term investments are stated at estimated fair value, while other investments included within short-term investments are stated at amortized cost, which approximates estimated fair value.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Other Invested Assets

Other invested assets consist principally of the following:

- Freestanding derivatives with positive estimated fair values which are described in "— Derivatives" below.
- Tax credit and renewable energy partnerships which derive a significant source of investment return in the form of income tax credits or other tax incentives. Where tax credits are guaranteed by a creditworthy third party, the investment is accounted for under the effective yield method. Otherwise, the investment is accounted for under the equity method. See Note 18.
- Annuities funding structured settlement claims represent annuities funding claims assumed by the Company in its capacity as a structured settlements assignment company. The annuities are stated at their contract value, which represents the present value of the future periodic claim payments to be provided. The net investment income recognized reflects the amortization of discount of the annuity at its implied effective interest rate. See Note 3.
- Direct financing leases net investment is equal to the minimum lease payments plus the unguaranteed residual value, less the unearned income. Income is determined by applying the pre-tax internal rate of return to the investment balance. The Company regularly reviews lease receivables for impairment. Certain direct financing leases are linked to inflation.
- Leveraged leases net investment is equal to the minimum lease payments plus the unguaranteed residual value, less the unearned income, and is recorded net of non-recourse debt. Income is determined by applying the leveraged lease's estimated rate of return to the net investment in the lease in those periods in which the net investment at the beginning of the period is positive. Leveraged leases derive investment returns in part from their income tax treatment. The Company regularly reviews residual values for impairment.
- Investments in operating joint ventures that engage in insurance underwriting activities are accounted for under the equity method.
- Investments in Federal Home Loan Bank ("FHLB") common stock are carried at redemption value and are considered restricted investments until redeemed by the respective FHLB regional banks ("FHLBanks").
- Funds withheld represent a receivable for amounts contractually withheld by ceding companies in accordance with reinsurance agreements. The Company recognizes interest on funds withheld at rates defined by the terms of the agreement which may be contractually specified or directly related to the underlying investments.

Securities Lending and Repurchase Agreements

The Company accounts for securities lending transactions and repurchase agreements as financing arrangements and the associated liability is recorded at the amount of cash received. Income and expenses associated with securities lending transactions and repurchase agreements are reported as investment income and investment expense, respectively, within net investment income.

Securities Lending

The Company enters into securities lending transactions, whereby blocks of securities are loaned to third parties, primarily brokerage firms and commercial banks. The Company obtains collateral at the inception of the loan, usually cash, in an amount generally equal to 102% of the estimated fair value of the securities loaned, and maintains it at a level greater than or equal to 100% for the duration of the loan. Securities loaned under such transactions may be sold or re-pledged by the transferee. The Company is liable to return to the counterparties the cash collateral received. Security collateral on deposit from counterparties in connection with securities lending transactions may not be sold or re-pledged, unless the counterparty is in default, and is not reflected on the Company's financial statements. The Company monitors the estimated fair value of the securities loaned on a daily basis and additional collateral is obtained as necessary throughout the duration of the loan.

Repurchase Agreements

The Company participates in short-term repurchase agreements with unaffiliated financial institutions. Under these agreements, the Company lends fixed maturity securities and receives cash as collateral in an amount generally equal to 85% to 100% of the estimated fair value of the securities loaned at the inception of the transaction. The Company monitors the estimated fair value of the collateral and the securities loaned throughout the duration of the transaction and additional collateral is obtained as necessary. Securities loaned under such transactions may be sold or re-pledged by the transferee.

FHLB of Boston Advance Agreements

A subsidiary of the Company has entered into short-term advance agreements with the FHLB of Boston. Under these advance agreements, the subsidiary pledges fixed maturity securities AFS as collateral and receives cash, which is segregated and reinvested, primarily into fixed maturity securities AFS and cash equivalents. While the collateral management practices are unique to this program, these transactions are accounted for, have collateral maintenance requirements and have restrictions on securities pledged similar to securities lending transactions, as described above. Securities pledged as collateral may not be sold or re-pledged by the transferee.

Derivatives

Freestanding Derivatives

Freestanding derivatives are carried on the Company's balance sheet either as assets within other invested assets or as liabilities within other liabilities at estimated fair value. The Company does not offset the estimated fair value amounts recognized for derivatives executed with the same counterparty under the same master netting agreement.

Accruals on derivatives are generally recorded in accrued investment income or within other liabilities. However, accruals that are not scheduled to settle within one year are included with the derivative's carrying value in other invested assets or other liabilities.

If a derivative is not designated as an accounting hedge or its use in managing risk does not qualify for hedge accounting, changes in the estimated fair value of the derivative are reported in net derivative gains (losses) except as follows:

Statement of Operations Presentation:	Derivative:
Policyholder benefits and claims	• Economic hedges of variable annuity guarantees included in future policy benefits
Net investment income	• Economic hedges of equity method investments in joint ventures • All derivatives held in relation to trading portfolios • Derivatives held within Unit-linked investments

Hedge Accounting

To qualify for hedge accounting, at the inception of the hedging relationship, the Company formally documents its risk management objective and strategy for undertaking the hedging transaction, as well as its designation of the hedge. Hedge designation and financial statement presentation of changes in estimated fair value of the hedging derivatives are as follows:

- Fair value hedge (a hedge of the estimated fair value of a recognized asset or liability) - in net derivative gains (losses), consistent with the change in estimated fair value of the hedged item attributable to the designated risk being hedged.
- Cash flow hedge (a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to a recognized asset or liability) - effectiveness in OCI (deferred gains or losses on the derivative are reclassified into the statement of operations when the Company's earnings are affected by the variability in cash flows of the hedged item); ineffectiveness in net derivative gains (losses).
- Net investment in a foreign operation hedge - effectiveness in OCI, consistent with the translation adjustment for the hedged net investment in the foreign operation; ineffectiveness in net derivative gains (losses).

The changes in estimated fair values of the hedging derivatives are exclusive of any accruals that are separately reported on the statement of operations within interest income or interest expense to match the location of the hedged item. Accruals on derivatives in net investment hedges are recognized in OCI.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

In its hedge documentation, the Company sets forth how the hedging instrument is expected to hedge the designated risks related to the hedged item and sets forth the method that will be used to retrospectively and prospectively assess the hedging instrument's effectiveness and the method that will be used to measure ineffectiveness. A derivative designated as a hedging instrument must be assessed as being highly effective in offsetting the designated risk of the hedged item. Hedge effectiveness is formally assessed at inception and at least quarterly throughout the life of the designated hedging relationship. Assessments of hedge effectiveness and measurements of ineffectiveness are also subject to interpretation and estimation and different interpretations or estimates may have a material effect on the amount reported in net income.

The Company discontinues hedge accounting prospectively when: (i) it is determined that the derivative is no longer highly effective in offsetting changes in the estimated fair value or cash flows of a hedged item; (ii) the derivative expires, is sold, terminated, or exercised; (iii) it is no longer probable that the hedged forecasted transaction will occur; or (iv) the derivative is de-designated as a hedging instrument.

When hedge accounting is discontinued because it is determined that the derivative is not highly effective in offsetting changes in the estimated fair value or cash flows of a hedged item, the derivative continues to be carried on the balance sheet at its estimated fair value, with changes in estimated fair value recognized in net derivative gains (losses). The carrying value of the hedged recognized asset or liability under a fair value hedge is no longer adjusted for changes in its estimated fair value due to the hedged risk, and the cumulative adjustment to its carrying value is amortized into income over the remaining life of the hedged item. Provided the hedged forecasted transaction is still probable of occurrence, the changes in estimated fair value of derivatives recorded in OCI related to discontinued cash flow hedges are released into the statement of operations when the Company's earnings are affected by the variability in cash flows of the hedged item.

When hedge accounting is discontinued because it is no longer probable that the forecasted transactions will occur on the anticipated date or within two months of that date, the derivative continues to be carried on the balance sheet at its estimated fair value, with changes in estimated fair value recognized currently in net derivative gains (losses). Deferred gains and losses of a derivative recorded in OCI pursuant to the discontinued cash flow hedge of a forecasted transaction that is no longer probable are recognized immediately in net derivative gains (losses).

In all other situations in which hedge accounting is discontinued, the derivative is carried at its estimated fair value on the balance sheet, with changes in its estimated fair value recognized in the current period as net derivative gains (losses).

Embedded Derivatives

The Company sells variable annuities and issues certain insurance products and investment contracts and is a party to certain reinsurance agreements that have embedded derivatives. The Company assesses each identified embedded derivative to determine whether it is required to be bifurcated. The embedded derivative is bifurcated from the host contract and accounted for as a freestanding derivative if:

- the combined instrument is not accounted for in its entirety at estimated fair value with changes in estimated fair value recorded in earnings;
- the terms of the embedded derivative are not clearly and closely related to the economic characteristics of the host contract; and
- a separate instrument with the same terms as the embedded derivative would qualify as a derivative instrument.

Such embedded derivatives are carried on the balance sheet at estimated fair value with the host contract and changes in their estimated fair value are generally reported in net derivative gains (losses). If the Company is unable to properly identify and measure an embedded derivative for separation from its host contract, the entire contract is carried on the balance sheet at estimated fair value, with changes in estimated fair value recognized in the current period in net investment gains (losses) or net investment income. Additionally, the Company may elect to carry an entire contract on the balance sheet at estimated fair value, with changes in estimated fair value recognized in the current period in net investment gains (losses) or net investment income if that contract contains an embedded derivative that requires bifurcation. At inception, the Company attributes to the embedded derivative a portion of the projected future guarantee fees to be collected from the policyholder equal to the present value of projected future guaranteed benefits. Any additional fees represent "excess" fees and are reported in universal life and investment-type product policy fees.

Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. In most cases, the exit price and the transaction (or entry) price will be the same at initial recognition.

Subsequent to initial recognition, fair values are based on unadjusted quoted prices for identical assets or liabilities in active markets that are readily and regularly obtainable. When such unadjusted quoted prices are not available, estimated fair values are based on quoted prices in markets that are not active, quoted prices for similar but not identical assets or liabilities, or other observable inputs. If these inputs are not available, or observable inputs are not determinable, unobservable inputs and/or adjustments to observable inputs requiring management's judgment are used to determine the estimated fair value of assets and liabilities.

Goodwill

Goodwill represents the future economic benefits arising from net assets acquired in a business combination that are not individually identified and recognized. Goodwill is calculated as the excess of cost over the estimated fair value of such net assets acquired, is not amortized, and is tested for impairment based on a fair value approach at least annually, or more frequently if events or circumstances indicate that there may be justification for conducting an interim test. The Company performs its annual goodwill impairment testing during the third quarter based upon data as of the close of the second quarter. Goodwill associated with a business acquisition is not tested for impairment during the year the business is acquired unless there is a significant identified impairment event.

The impairment test is performed at the reporting unit level, which is the operating segment or a business one level below the operating segment, if discrete financial information is prepared and regularly reviewed by management at that level. For purposes of goodwill impairment testing, if the carrying value of a reporting unit exceeds its estimated fair value, there may be an indication of impairment. In such instances, the implied fair value of the goodwill is determined in the same manner as the amount of goodwill that would be determined in a business combination. The excess of the carrying value of goodwill over the implied fair value of goodwill would be recognized as an impairment and recorded as a charge against net income.

On an ongoing basis, the Company evaluates potential triggering events that may affect the estimated fair value of the Company's reporting units to assess whether any goodwill impairment exists. Deteriorating or adverse market conditions for certain reporting units may have a significant impact on the estimated fair value of these reporting units and could result in future impairments of goodwill.

Employee Benefit Plans

Certain subsidiaries of MetLife, Inc. sponsor and/or administer various plans that provide defined benefit pension and other postretirement benefits covering eligible employees. Measurement dates used for all of the subsidiaries' defined benefit pension and other postretirement benefit plans correspond with the fiscal year ends of sponsoring subsidiaries, which is December 31 for U.S. and non-U.S. subsidiaries.

The Company recognizes the funded status of each of its defined benefit pension and postretirement benefit plans, measured as the difference between the fair value of plan assets and the benefit obligation, which is the projected benefit obligation ("PBO") for pension benefits and the accumulated postretirement benefit obligation ("APBO") for other postretirement benefits in other assets or other liabilities.

Actuarial gains and losses result from differences between the actual experience and the assumed experience on plan assets or PBO during a particular period and are recorded in accumulated OCI ("AOCI"). To the extent such gains and losses exceed 10% of the greater of the PBO or the estimated fair value of plan assets, the excess is amortized into net periodic benefit costs, generally over the average projected future service years of the active employees. In addition, prior service costs (credit) are recognized in AOCI at the time of the amendment and then amortized to net periodic benefit costs over the average projected future service years of the active employees.

Net periodic benefit costs are determined using management's estimates and actuarial assumptions and are comprised of service cost, interest cost, settlement and curtailment costs, expected return on plan assets, amortization of net actuarial (gains) losses, and amortization of prior service costs (credit). Fair value is used to determine the expected return on plan assets.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

The subsidiaries also sponsor defined contribution plans for substantially all U.S. employees under which a portion of employee contributions is matched. Applicable matching contributions are made each payroll period. Accordingly, the Company recognizes compensation cost for current matching contributions. As all contributions are transferred currently as earned to the defined contribution plans, no liability for matching contributions is recognized on the balance sheets.

Income Tax

MetLife, Inc. and its includable life insurance and non-life insurance subsidiaries file a consolidated U.S. federal income tax return in accordance with the provisions of the Internal Revenue Code of 1986, as amended. Non-includable subsidiaries file either separate individual corporate tax returns or separate consolidated tax returns.

The Company's accounting for income taxes represents management's best estimate of various events and transactions.

Deferred tax assets and liabilities resulting from temporary differences between the financial reporting and tax bases of assets and liabilities are measured at the balance sheet date using enacted tax rates expected to apply to taxable income in the years the temporary differences are expected to reverse.

The realization of deferred tax assets depends upon the existence of sufficient taxable income within the carryback or carryforward periods under the tax law in the applicable tax jurisdiction. Valuation allowances are established against deferred tax assets when management determines, based on available information, that it is more likely than not that deferred income tax assets will not be realized. Significant judgment is required in determining whether valuation allowances should be established, as well as the amount of such allowances. When making such determination, the Company considers many factors, including:

- the nature, frequency, and amount of cumulative financial reporting income and losses in recent years;
- the jurisdiction in which the deferred tax asset was generated;
- the length of time that carryforward can be utilized in the various taxing jurisdictions;
- future taxable income exclusive of reversing temporary differences and carryforwards;
- future reversals of existing taxable temporary differences;
- taxable income in prior carryback years; and
- tax planning strategies.

The Company may be required to change its provision for income taxes when estimates used in determining valuation allowances on deferred tax assets significantly change or when receipt of new information indicates the need for adjustment in valuation allowances. Additionally, the effect of changes in tax laws, tax regulations, or interpretations of such laws or regulations, is recognized in net income tax expense (benefit) in the period of change.

The Company determines whether it is more likely than not that a tax position will be sustained upon examination by the appropriate taxing authorities before any part of the benefit can be recorded on the financial statements. A tax position is measured at the largest amount of benefit that is greater than 50% likely of being realized upon settlement. Unrecognized tax benefits due to tax uncertainties that do not meet the threshold are included within other liabilities and are charged to earnings in the period that such determination is made.

The Company classifies interest recognized as interest expense and penalties recognized as a component of income tax expense.

On December 22, 2017, President Trump signed into law H.R.1, commonly referred to as the Tax Cuts and Jobs Act of 2017 ("U.S. Tax Reform"). See Note 18 for additional information on U.S. Tax Reform and related Staff Accounting Bulletin ("SAB") 118 provisional amounts.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Litigation Contingencies

The Company is a defendant in a large number of litigation matters and is involved in a number of regulatory investigations. Given the large and/or indeterminate amounts sought in certain of these matters and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material effect on the Company's consolidated net income or cash flows in particular quarterly or annual periods. Liabilities are established when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Except as otherwise disclosed in Note 20, legal costs are recognized as incurred. On a quarterly and annual basis, the Company reviews relevant information with respect to liabilities for litigation, regulatory investigations and litigation-related contingencies to be reflected on the Company's financial statements.

Other Accounting Policies

Stock-Based Compensation

The Company grants certain employees and directors stock-based compensation awards under various plans that are subject to specific vesting conditions. With the exception of performance shares granted in 2013 through 2018, and cash-payable awards, each of which are re-measured quarterly, the Company measures the cost of all stock-based transactions at fair value at grant date and recognizes it over the period during which a grantee must provide services in exchange for the award. Employees who meet certain age-and-service criteria receive payment or may exercise their awards regardless of ending employment. However, the award's payment or exercisability takes place at the originally-scheduled time, i.e., is not accelerated. As a result, the award does not require the employee to provide any substantive service after attaining those age-and-service criteria. Accordingly, the Company recognizes compensation expense related to stock-based awards from the beginning of the vesting to the earlier of the end of the vesting period or the date the employee attains the age-and-service criteria. The Company incorporates an estimation of future forfeitures of stock-based awards into the determination of compensation expense when recognizing expense over the requisite service period.

Cash and Cash Equivalents

The Company considers highly liquid securities and other investments purchased with an original or remaining maturity of three months or less at the date of purchase to be cash equivalents. Securities included within cash equivalents are stated at estimated fair value, while other investments included within cash equivalents are stated at amortized cost, which approximates estimated fair value.

Property, Equipment, Leasehold Improvements and Computer Software

Property, equipment and leasehold improvements, which are included in other assets, are stated at cost, less accumulated depreciation and amortization. Depreciation is determined using the straight-line method over the estimated useful lives of the assets, as appropriate. The estimated life is generally 40 years for company occupied real estate property, from one to 25 years for leasehold improvements, and from three to seven years for all other property and equipment. The cost basis of the property, equipment and leasehold improvements was $2.6 billion and $2.5 billion at December 31, 2018 and 2017, respectively. Accumulated depreciation and amortization of property, equipment and leasehold improvements was $1.2 billion and $1.1 billion at December 31, 2018 and 2017, respectively. Related depreciation and amortization expense was $191 million, $207 million and $206 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Computer software, which is included in other assets, is stated at cost, less accumulated amortization. Purchased software costs, as well as certain internal and external costs incurred to develop internal-use computer software during the application development stage, are capitalized. Such costs are amortized generally over a four-year period using the straight-line method. The cost basis of computer software was $3.1 billion and $2.8 billion at December 31, 2018 and 2017, respectively. Accumulated amortization of capitalized software was $2.2 billion and $2.0 billion at December 31, 2018 and 2017, respectively. Related amortization expense was $276 million, $250 million and $208 million for the years ended December 31, 2018, 2017 and 2016, respectively.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Other Revenues

Other revenues primarily include fees related to service contracts from customers related to prepaid legal plans, administrative services-only ("ASO") contracts, and investment management services. Substantially all of the revenue from the services is recognized over time as the applicable services are provided or are made available to the customers. The revenue recognized includes variable consideration to the extent it is probable that a significant reversal will not occur. In addition to the service fees, other revenues also include certain stable value fee and other miscellaneous revenues. These fees and miscellaneous revenues are recognized as earned.

Policyholder Dividends

Policyholder dividends are approved annually by the insurance subsidiaries' boards of directors. The aggregate amount of policyholder dividends is related to actual interest, mortality, morbidity and expense experience for the year, as well as management's judgment as to the appropriate level of statutory surplus to be retained by the insurance subsidiaries.

Foreign Currency

Assets, liabilities and operations of foreign affiliates and subsidiaries are recorded based on the functional currency of each entity. The determination of the functional currency is made based on the appropriate economic and management indicators. For most of the Company's foreign operations, the local currency is the functional currency. For certain other foreign operations, such as Japan, the local currency and one or more other currencies qualify as functional currencies. Assets and liabilities of foreign affiliates and subsidiaries are translated from the functional currency to U.S. dollars at the exchange rates in effect at each year-end and revenues and expenses are translated at the average exchange rates during the year. The resulting translation adjustments are charged or credited directly to OCI, net of applicable taxes. Gains and losses from foreign currency transactions, including the effect of re-measurement of monetary assets and liabilities to the appropriate functional currency, are reported as part of net investment gains (losses) in the period in which they occur.

Earnings Per Common Share

Basic earnings per common share are computed based on the weighted average number of common shares, or their equivalent, outstanding during the period. Diluted earnings per common share include the dilutive effect of the assumed exercise or issuance of stock-based awards using the treasury stock method. Under the treasury stock method, exercise or issuance of stock-based awards is assumed to occur with the proceeds used to purchase common stock at the average market price for the period. The difference between the number of shares assumed issued and number of shares assumed purchased represents the dilutive shares.

Recent Accounting Pronouncements

Changes to GAAP are established by the Financial Accounting Standards Board ("FASB") in the form of accounting standards updates ("ASUs") to the FASB Accounting Standards Codification. The Company considers the applicability and impact of all ASUs. The following tables provide a description of new ASUs issued by the FASB and the impact of the adoption on the Company's consolidated financial statements.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Adoption of New Accounting Pronouncements

Except as noted below, the ASUs adopted by the Company effective January 1, 2018 did not have a material impact on its consolidated financial statements.

Standard	Description	Effective Date and Method of Adoption	Impact on Financial Statements
ASU 2018-02, *Income Statement—Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*	The new guidance allows a reclassification of AOCI to retained earnings for stranded tax effects resulting from the U.S. Tax Reform. Due to the change in corporate tax rates resulting from the U.S. Tax Reform, the Company reported stranded tax effects in AOCI related to unrealized gains and losses on AFS securities, cumulative foreign translation adjustments and deferred costs on pension benefit plans.	January 1, 2018, the Company applied the ASU in the period of adoption.	The adoption of this guidance resulted in the release of stranded tax effects in AOCI resulting from the U.S. Tax Reform by decreasing retained earnings as of January 1, 2018 by $1.2 billion with a corresponding increase to AOCI. The Company's accounting policy for the release of stranded tax effects in AOCI is on an aggregate portfolio basis.
ASU 2016-01, *Financial Instruments — Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*, as clarified and amended by ASU 2018-03, *Technical Corrections and Improvements to Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities.*	The new guidance changed the previous accounting guidance related to (i) the classification and measurement of certain equity investments, (ii) the presentation of changes in the fair value of financial liabilities measured under the FVO that are due to instrument-specific credit risk, and (iii) certain disclosures associated with the fair value of financial instruments. There is no longer a requirement to assess equity securities for impairment since such securities are now measured at fair value through net income. Additionally, there is no longer a requirement to assess equity securities for embedded derivatives requiring bifurcation.	January 1, 2018, the Company adopted, using a modified retrospective approach.	The adoption of this guidance resulted in a $328 million, net of income tax, increase to retained earnings largely offset by a decrease to AOCI that was primarily attributable to $1.7 billion of equity securities previously classified and measured as equity securities AFS. At December 31, 2017, equity securities of $16.0 billion primarily associated with Unit-linked investments were accounted for using the FVO and therefore were unaffected by the new guidance. The Company has included the required disclosures related to equity securities AFS within Note 8.
ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*	The new guidance supersedes nearly all existing revenue recognition guidance under GAAP. However, it does not impact the accounting for insurance and investment contracts within the scope of FASB Accounting Standard Codification *Topic 944, Financial Services - Insurance*, leases, financial instruments and certain guarantees. For those contracts that are impacted, the new guidance requires an entity to recognize revenue upon the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled, in exchange for those goods or services.	January 1, 2018, the Company adopted, using a modified retrospective approach.	The adoption of the guidance did not have a material impact on the Company's consolidated financial statements other than expanded disclosures in Note 16.

Other

Effective January 16, 2018, the London Clearing House ("LCH") amended its rulebook, resulting in the characterization of variation margin transfers as settlement payments, as opposed to adjustments to collateral. These amendments impacted the accounting treatment of the Company's centrally cleared derivatives, for which the LCH serves as the central clearing party. As of the effective date, the application of the amended rulebook reduced gross derivative assets by $369 million, gross derivative liabilities by $203 million, accrued investment income by $14 million, collateral receivables recorded within premiums, reinsurance and other receivables by $184 million, and collateral payables recorded within payables for collateral under securities loaned and other transactions by $365 million. The application of the amended rulebook increased accrued investment expense recorded within other liabilities by $1 million.

Effective January 3, 2017, the Chicago Mercantile Exchange ("CME") amended its rulebook, resulting in the characterization of variation margin transfers as settlement payments, as opposed to adjustments to collateral. These amendments impacted the accounting treatment of the Company's centrally cleared derivatives for which the CME serves as the central clearing party. As of the effective date, the application of the amended rulebook reduced gross derivative assets by $1.8 billion, gross derivative liabilities by $2.0 billion, accrued investment income by $101 million, accrued investment expense recorded within other liabilities by $14 million, collateral receivables recorded within premiums, reinsurance and other receivables by $991 million, and collateral payables recorded within payables for collateral under securities loaned and other transactions by $816 million.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Future Adoption of New Accounting Pronouncements

ASUs not listed below were assessed and either determined to be not applicable or are not expected to have a material impact on the Company's consolidated financial statements. ASUs issued but not yet adopted as of December 31, 2018 that are being assessed and may or may not have a material impact on the Company's consolidated financial statements are summarized in the table below.

Standard	Description	Effective Date and Method of Adoption	Impact on Financial Statements
ASU 2018-17, *Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities*	The new guidance provides that indirect interests held through related parties in common control arrangements should be considered on a proportional basis for determining whether fees paid to decisionmakers and service providers are variable interests.	January 1, 2020, to be applied retrospectively with a cumulative effect adjustment to retained earnings at the beginning of the earliest period presented.	The Company does not expect the adoption to have a material impact on its consolidated financial statements.
ASU 2018-16, *Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes*	The new guidance permits the use of the overnight index swap rate based on the Secured Overnight Financing Rate as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815.	January 1, 2019, to be applied prospectively for qualifying new or redesignated hedging relationships entered into after January 1, 2019.	The Company does not expect the adoption to have a material impact on its consolidated financial statements.
ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*	The new guidance requires a customer in a cloud computing arrangement that is a service contract to follow the internal-use software guidance to determine which implementation costs to capitalize as an asset and which costs to expense as incurred. Implementation costs that are capitalized under the new guidance are required to be amortized over the term of the hosting arrangement, beginning when the module or component of the hosting arrangement is ready for its intended use.	January 1, 2020. The new guidance can be applied either prospectively to eligible costs incurred on or after the guidance is first applied, or retrospectively to all periods presented.	The Company is currently evaluating the impact of the new guidance on its consolidated financial statements.
ASU 2018-14, *Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans*	The new guidance removes certain disclosures that no longer are considered cost beneficial, clarifies the specific requirements of disclosures, and adds disclosure requirements identified as relevant for employers that sponsor defined benefit pension or other postretirement plans.	December 31, 2020, to be applied on a retrospective basis to all periods presented (with early adoption permitted).	The Company is currently evaluating the impact of the new guidance on its consolidated financial statements.
ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*	The new guidance modifies the disclosure requirements on fair value by removing some requirements, modifying others, adding changes in unrealized gains and losses included in OCI for recurring Level 3 fair value measurements, and under certain circumstances, providing the option to disclose certain other quantitative information with respect to significant unobservable inputs in lieu of a weighted average.	January 1, 2020. Amendments related to changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively. All other amendments should be applied retrospectively.	As of December 31, 2018, the Company early adopted the provisions of the guidance that removed the requirements relating to transfers between fair value hierarchy levels and certain disclosures about valuation processes for Level 3 fair value measurements. The Company will adopt the remainder of the new guidance at the effective date, and is currently evaluating the impact of those changes on its consolidated financial statements.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Standard	Description	Effective Date and Method of Adoption	Impact on Financial Statements
ASU 2018-12, *Financial Services—Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts*	The new guidance (i) prescribes the discount rate to be used in measuring the liability for future policy benefits for traditional and limited payment long-duration contracts, and requires assumptions for those liability valuations to be updated after contract inception, (ii) requires more market-based product guarantees on certain separate account and other account balance long-duration contracts to be accounted for at fair value, (iii) simplifies the amortization of DAC for virtually all long-duration contracts, and (iv) introduces certain financial statement presentation requirements, as well as significant additional quantitative and qualitative disclosures.	January 1, 2021, to be applied retrospectively to January 1, 2019 (with early adoption permitted).	The Company has started its implementation efforts and is currently evaluating the impact of the new guidance. Given the nature and extent of the required changes to a significant portion of the Company's operations, the adoption of this standard is expected to have a material impact on its consolidated financial statements.
ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*	The new guidance simplifies the application of hedge accounting in certain situations and amends the hedge accounting model to enable entities to better portray the economics of their risk management activities in their financial statements.	January 1, 2019, to be applied on a modified retrospective basis through a cumulative effect adjustment to retained earnings.	Upon adoption, the Company will make certain changes to its assessment of hedge effectiveness for fair value hedging relationships, and the Company will also reclassify hedge ineffectiveness for cash flow hedging relationships existing as of the adoption date, which was previously recorded to earnings, to AOCI. The estimated impact of adoption is a decrease to retained earnings of less than $250 million.
ASU 2017-08, *Receivables — Nonrefundable Fees and Other Costs (Subtopic 310-20), Premium Amortization on Purchased Callable Debt Securities*	The new guidance shortens the amortization period for certain callable debt securities held at a premium and requires the premium to be amortized to the earliest call date. However, the new guidance does not require an accounting change for securities held at a discount whose discount continues to be amortized to maturity.	January 1, 2019, to be applied on a modified retrospective basis through a cumulative effect adjustment to retained earnings.	The adoption of the new guidance will not have a material impact on the Company's consolidated financial statements.
ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*	The new guidance simplifies the current two-step goodwill impairment test by eliminating Step 2 of the test. The new guidance requires a one-step impairment test in which an entity compares the fair value of a reporting unit with its carrying amount and recognizes an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, if any.	January 1, 2020, to be applied on a prospective basis. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017.	The new guidance will reduce the complexity involved with the evaluation of goodwill for impairment. The impact of the new guidance will depend on the outcomes of future goodwill impairment tests.
ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments,* as clarified and amended by ASU 2018-19*, Codification Improvements to Topic 326, Financial Instruments—Credit Losses*	This new guidance replaces the incurred loss impairment methodology with one that reflects expected credit losses. The measurement of expected credit losses should be based on historical loss information, current conditions, and reasonable and supportable forecasts. The new guidance requires that an OTTI on a debt security will be recognized as an allowance going forward, such that improvements in expected future cash flows after an impairment will no longer be reflected as a prospective yield adjustment through net investment income, but rather a reversal of the previous impairment and recognized through realized investment gains and losses. The guidance also requires enhanced disclosures. In November 2018, the FASB issued ASU 2018-19, clarifying that receivables arising from operating leases should be accounted for in accordance with *Topic 842, Leases*. The Company has assessed the asset classes impacted by the new guidance and is currently assessing the accounting and reporting system changes that will be required to comply with the new guidance.	January 1, 2020. For substantially all financial assets, the ASU is to be applied on a modified retrospective basis through a cumulative effect adjustment to retained earnings. For previously impaired debt securities and certain debt securities acquired with evidence of credit quality deterioration since origination, the new guidance is to be applied prospectively.	The Company believes that the most significant impact upon adoption will be to its mortgage loan investments. The Company is currently evaluating the impact of the new guidance on its consolidated financial statements.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Standard	Description	Effective Date and Method of Adoption	Impact on Financial Statements
ASU 2016-02, *Leases (Topic 842),* as clarified and amended by ASU 2018-10, *Codification Improvements to Topic 842, Leases,* ASU 2018-11, *Leases (Topic 842): Targeted Improvements,* and ASU 2018-20, *Leases (Topic 842): Narrow-Scope Improvements for Lessors*	The new guidance requires a lessee to recognize assets and liabilities for leases with lease terms of more than 12 months. Leases would be classified as finance or operating leases and both types of leases will be recognized on the balance sheet. Lessor accounting will remain largely unchanged from current guidance except for certain targeted changes. The new guidance will also require new qualitative and quantitative disclosures. In July 2018, two amendments to the new guidance were issued. The amendments provide the option to adopt the new guidance prospectively without adjusting comparative periods. Also, the amendments provide lessors with a practical expedient not to separate lease and non-lease components for certain operating leases. In December 2018, an amendment was issued to clarify lessor accounting relating to taxes, certain lessor's costs and variable payments related to both lease and non-lease components. The Company will adopt the new guidance and related amendments on January 1, 2019 and expects to elect certain practical expedients permitted under the transition guidance. In addition, the Company will elect the prospective transition option and recognize a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption. The Company has been executing an integrated implementation plan which includes a multi-functional working group with a project governance structure to address any resource, system, data and process gaps related to the implementation of the new standard. The Company is currently integrating a lease accounting technology solution and finalizing updated reporting processes and additional internal controls to facilitate compliance with the new guidance.	January 1, 2019, to be applied on a modified retrospective basis using the optional transition method with a cumulative effect adjustment recorded at January 1, 2019.	The Company believes the most significant changes relate to (i) the recognition of new right of use assets and lease liabilities on the consolidated balance sheet for real estate operating leases; and (ii) the recognition of deferred gains associated with previous sale-leaseback transactions as a cumulative effect adjustment to retained earnings. On adoption, the Company will recognize additional operating liabilities, with corresponding right of use assets of the same amount adjusted for prepaid/deferred rent, unamortized initial direct costs and potential impairment of right of use assets based on the present value of the remaining minimum rental payments. These assets and liabilities will represent less than 1% of the Company's total assets and total liabilities. The adoption will not have a material impact on its consolidated financial statements.

2. Segment Information

MetLife is organized into five segments: U.S.; Asia; Latin America; EMEA; and MetLife Holdings. In addition, the Company reports certain of its results of operations in Corporate & Other.

U.S.

The U.S. segment offers a broad range of protection products and services aimed at serving the financial needs of customers throughout their lives. These products are sold to corporations and their respective employees, other institutions and their respective members, as well as individuals. The U.S. segment is organized into three businesses: Group Benefits, Retirement and Income Solutions ("RIS") and Property & Casualty.

- The Group Benefits business offers life, dental, group short- and long-term disability, individual disability, accidental death and dismemberment, vision and accident & health coverages, as well as prepaid legal plans. This business also sells ASO arrangements to some employers.
- The RIS business offers a broad range of life and annuity-based insurance and investment products, including stable value and pension risk transfer products, institutional income annuities, tort settlements, and capital markets investment products, as well as solutions for funding postretirement benefits and company-, bank- or trust-owned life insurance.
- The Property & Casualty business offers personal and commercial lines of property and casualty insurance, including private passenger automobile, homeowners' and personal excess liability insurance. In addition, Property & Casualty offers to small business owners property, liability and business interruption insurance.

Asia

The Asia segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees, which include whole and term life, endowments, universal and variable life, accident & health insurance and fixed and variable annuities.

Latin America

The Latin America segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees, which include life insurance, retirement and savings products, accident & health insurance and credit insurance.

EMEA

The EMEA segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees, which include life insurance, accident & health insurance, retirement and savings products and credit insurance.

MetLife Holdings

The MetLife Holdings segment consists of operations relating to products and businesses that the Company no longer actively markets in the United States, such as variable, universal, term and whole life insurance, variable, fixed and index-linked annuities, and long-term care insurance, as well as the assumed variable annuity guarantees from the Company's former operating joint venture in Japan.

Corporate & Other

Corporate & Other contains the excess capital, as well as certain charges and activities, not allocated to the segments, including external integration and disposition costs, internal resource costs for associates committed to acquisitions and dispositions, enterprise-wide strategic initiative restructuring charges and various start-up and developing businesses (including the investment management business through which the Company, as a manager of assets such as global fixed income and real estate, provides differentiated investment solutions to institutional investors worldwide). Additionally, Corporate & Other includes run-off businesses. Corporate & Other also includes interest expense related to the majority of the Company's outstanding debt, as well as expenses associated with certain legal proceedings and income tax audit issues. In addition, Corporate & Other includes the elimination of intersegment amounts, which generally relate to affiliated reinsurance, investment expenses and intersegment loans, which bear interest rates commensurate with related borrowings. As a result of the Separation, for the year ended 2016, Corporate & Other includes corporate overhead costs previously allocated to the former Brighthouse Financial segment.

2. Segment Information (continued)

Financial Measures and Segment Accounting Policies

Adjusted earnings is used by management to evaluate performance and allocate resources. Consistent with GAAP guidance for segment reporting, adjusted earnings is also the Company's GAAP measure of segment performance and is reported below. Adjusted earnings should not be viewed as a substitute for income (loss) from continuing operations, net of income tax. The Company believes the presentation of adjusted earnings, as the Company measures it for management purposes, enhances the understanding of its performance by highlighting the results of operations and the underlying profitability drivers of the business.

Adjusted earnings is defined as adjusted revenues less adjusted expenses, net of income tax.

The financial measures of adjusted revenues and adjusted expenses focus on the Company's primary businesses principally by excluding the impact of market volatility, which could distort trends, and revenues and costs related to non-core products and certain entities required to be consolidated under GAAP. Also, these measures exclude results of discontinued operations under GAAP and other businesses that have been or will be sold or exited by MetLife but do not meet the discontinued operations criteria under GAAP and are referred to as divested businesses. Divested businesses also includes the net impact of transactions with exited businesses that have been eliminated in consolidation under GAAP and costs relating to businesses that have been or will be sold or exited by MetLife that do not meet the criteria to be included in results of discontinued operations under GAAP. In addition, for the year ended December 31, 2016, adjusted revenues and adjusted expenses exclude the financial impact of converting the Company's Japan operations to calendar year-end reporting without retrospective application of this change to prior periods and is referred to as lag elimination. Adjusted revenues also excludes net investment gains (losses) and net derivative gains (losses). Adjusted expenses also excludes goodwill impairments.

The following additional adjustments are made to revenues, in the line items indicated, in calculating adjusted revenues:

- Universal life and investment-type product policy fees excludes the amortization of unearned revenue related to net investment gains (losses) and net derivative gains (losses) and certain variable annuity GMIB fees ("GMIB fees");
- Net investment income: (i) includes earned income on derivatives and amortization of premium on derivatives that are hedges of investments or that are used to replicate certain investments, but do not qualify for hedge accounting treatment, (ii) excludes post-tax adjusted earnings adjustments relating to insurance joint ventures accounted for under the equity method, (iii) excludes certain amounts related to contractholder-directed equity securities, (iv) excludes certain amounts related to securitization entities that are VIEs consolidated under GAAP and (v) includes distributions of profits from certain other limited partnership interests that were previously accounted for under the cost method, but are now accounted for at estimated fair value, where the change in estimated fair value is recognized in net investment gains (losses) under GAAP; and
- Other revenues is adjusted for settlements of foreign currency earnings hedges and excludes fees received in association with services provided under transition service agreements ("TSA fees").

2. Segment Information (continued)

The following additional adjustments are made to expenses, in the line items indicated, in calculating adjusted expenses:

- Policyholder benefits and claims and policyholder dividends excludes: (i) changes in the policyholder dividend obligation related to net investment gains (losses) and net derivative gains (losses), (ii) inflation-indexed benefit adjustments associated with contracts backed by inflation-indexed investments and amounts associated with periodic crediting rate adjustments based on the total return of a contractually referenced pool of assets and other pass through adjustments, (iii) benefits and hedging costs related to GMIBs ("GMIB costs"), and (iv) market value adjustments associated with surrenders or terminations of contracts ("Market value adjustments");
- Interest credited to policyholder account balances includes adjustments for earned income on derivatives and amortization of premium on derivatives that are hedges of policyholder account balances but do not qualify for hedge accounting treatment and excludes certain amounts related to net investment income earned on contractholder-directed equity securities;
- Amortization of DAC and VOBA excludes amounts related to: (i) net investment gains (losses) and net derivative gains (losses), (ii) GMIB fees and GMIB costs and (iii) Market value adjustments;
- Amortization of negative VOBA excludes amounts related to Market value adjustments;
- Interest expense on debt excludes certain amounts related to securitization entities that are VIEs consolidated under GAAP; and
- Other expenses excludes costs related to: (i) noncontrolling interests, (ii) implementation of new insurance regulatory requirements, and (iii) acquisition, integration and other costs. Other expenses includes TSA fees.

Adjusted earnings also excludes the recognition of certain contingent assets and liabilities that could not be recognized at acquisition or adjusted for during the measurement period under GAAP business combination accounting guidance.

The tax impact of the adjustments mentioned above are calculated net of the U.S. or foreign statutory tax rate, which could differ from the Company's effective tax rate. Additionally, the provision for income tax (expense) benefit also includes the impact related to the timing of certain tax credits, as well as certain tax reforms.

Set forth in the tables below is certain financial information with respect to the Company's segments, as well as Corporate & Other, for the years ended December 31, 2018, 2017 and 2016 and at December 31, 2018 and 2017. The segment accounting policies are the same as those used to prepare the Company's consolidated financial statements, except for adjusted earnings adjustments as defined above. In addition, segment accounting policies include the method of capital allocation described below.

Economic capital is an internally developed risk capital model, the purpose of which is to measure the risk in the business and to provide a basis upon which capital is deployed. The economic capital model accounts for the unique and specific nature of the risks inherent in the Company's business.

The Company's economic capital model, coupled with considerations of local capital requirements, aligns segment allocated equity with emerging standards and consistent risk principles. The model applies statistics-based risk evaluation principles to the material risks to which the Company is exposed. These consistent risk principles include calibrating required economic capital shock factors to a specific confidence level and time horizon while applying an industry standard method for the inclusion of diversification benefits among risk types. The Company's management is responsible for the ongoing production and enhancement of the economic capital model and reviews its approach periodically to ensure that it remains consistent with emerging industry practice standards.

Segment net investment income is credited or charged based on the level of allocated equity; however, changes in allocated equity do not impact the Company's consolidated net investment income, income (loss) from continuing operations, net of income tax, or adjusted earnings.

Net investment income is based upon the actual results of each segment's specifically identifiable investment portfolios adjusted for allocated equity. Other costs are allocated to each of the segments based upon: (i) a review of the nature of such costs; (ii) time studies analyzing the amount of employee compensation costs incurred by each segment; and (iii) cost estimates included in the Company's product pricing.

MetLife, Inc.

Notes to the Consolidated Financial Statements — (continued)

2. Segment Information (continued)

Year Ended December 31, 2018	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total	Adjustments	Total Consolidated
					(In millions)				
Revenues									
Premiums	$ 28,186	$ 6,766	$ 2,760	$ 2,131	$ 3,879	$ 118	$ 43,840	$ —	$ 43,840
Universal life and investment-type product policy fees	1,053	1,630	1,050	431	1,218	—	5,382	120	5,502
Net investment income	6,977	3,317	1,239	293	5,379	178	17,383	(1,217)	16,166
Other revenues	821	51	35	66	250	333	1,556	324	1,880
Net investment gains (losses)	—	—	—	—	—	—	—	(298)	(298)
Net derivative gains (losses)	—	—	—	—	—	—	—	851	851
Total revenues	37,037	11,764	5,084	2,921	10,726	629	68,161	(220)	67,941
Expenses									
Policyholder benefits and claims and policyholder dividends	27,765	5,326	2,602	1,127	6,833	80	43,733	174	43,907
Interest credited to policyholder account balances	1,790	1,465	394	100	944	—	4,693	(680)	4,013
Capitalization of DAC	(449)	(1,915)	(377)	(468)	(36)	(8)	(3,253)	(1)	(3,254)
Amortization of DAC and VOBA	477	1,302	209	434	332	6	2,760	215	2,975
Amortization of negative VOBA	—	(39)	(1)	(15)	—	—	(55)	(1)	(56)
Interest expense on debt	12	—	6	—	9	1,032	1,059	63	1,122
Other expenses	3,902	3,840	1,421	1,378	1,081	907	12,529	398	12,927
Total expenses	33,497	9,979	4,254	2,556	9,163	2,017	61,466	168	61,634
Provision for income tax expense (benefit)	736	548	238	88	308	(825)	1,093	86	1,179
Adjusted earnings	$ 2,804	$ 1,237	$ 592	$ 277	$ 1,255	$ (563)	5,602		
Adjustments to:									
Total revenues							(220)		
Total expenses							(168)		
Provision for income tax (expense) benefit							(86)		
Income (loss) from continuing operations, net of income tax							$ 5,128		$ 5,128

At December 31, 2018	U.S.	Asia (1)	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Total assets	$ 248,174	$ 146,278	$ 70,417	$ 27,829	$ 166,872	$ 27,968	$ 687,538
Separate account assets	$ 71,436	$ 8,849	$ 47,757	$ 5,306	$ 42,208	$ —	$ 175,556
Separate account liabilities	$ 71,436	$ 8,849	$ 47,757	$ 5,306	$ 42,208	$ —	$ 175,556

(1) Total assets includes $120.0 billion of assets from the Japan operations which represents 17% of total consolidated assets.

2. Segment Information (continued)

Year Ended December 31, 2017	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total	Adjustments	Total Consolidated
					(In millions)				
Revenues									
Premiums	$ 23,632	$ 6,755	$ 2,693	$ 2,061	$ 4,144	$ 54	$ 39,339	$ (347)	$ 38,992
Universal life and investment-type product policy fees	1,012	1,584	1,044	405	1,361	1	5,407	103	5,510
Net investment income	6,396	2,985	1,219	309	5,607	28	16,544	819	17,363
Other revenues	806	43	32	58	244	271	1,454	(113)	1,341
Net investment gains (losses)	—	—	—	—	—	—	—	(308)	(308)
Net derivative gains (losses)	—	—	—	—	—	—	—	(590)	(590)
Total revenues	31,846	11,367	4,988	2,833	11,356	354	62,744	(436)	62,308
Expenses									
Policyholder benefits and claims and policyholder dividends	23,627	5,075	2,535	1,077	7,000	26	39,340	204	39,544
Interest credited to policyholder account balances	1,474	1,351	369	100	1,018	1	4,313	1,294	5,607
Capitalization of DAC	(458)	(1,710)	(364)	(414)	(82)	(8)	(3,036)	34	(3,002)
Amortization of DAC and VOBA	459	1,300	224	357	302	6	2,648	33	2,681
Amortization of negative VOBA	—	(111)	(1)	(19)	—	—	(131)	(9)	(140)
Interest expense on debt	11	—	5	—	24	1,105	1,145	(16)	1,129
Other expenses	3,682	3,613	1,479	1,376	1,365	894	12,409	544	12,953
Total expenses	28,795	9,518	4,247	2,477	9,627	2,024	56,688	2,084	58,772
Provision for income tax expense (benefit)	1,024	620	156	59	547	(688)	1,718	(3,188)	(1,470)
Adjusted earnings	$ 2,027	$ 1,229	$ 585	$ 297	$ 1,182	$ (982)	4,338		
Adjustments to:									
Total revenues							(436)		
Total expenses							(2,084)		
Provision for income tax (expense) benefit							3,188		
Income (loss) from continuing operations, net of income tax							$ 5,006		$ 5,006

At December 31, 2017	U.S.	Asia (1)	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Total assets	$ 255,428	$ 136,928	$ 79,670	$ 30,500	$ 183,160	$ 34,206	$ 719,892
Separate account assets	$ 81,243	$ 10,032	$ 56,218	$ 5,975	$ 51,533	$ —	$ 205,001
Separate account liabilities	$ 81,243	$ 10,032	$ 56,218	$ 5,975	$ 51,533	$ —	$ 205,001

(1) Total assets includes $111.0 billion of assets from the Japan operations which represents 15% of total consolidated assets.

2. Segment Information (continued)

Year Ended December 31, 2016	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total	Adjustments	Total Consolidated
					(In millions)				
Revenues									
Premiums	$ 21,501	$ 6,902	$ 2,529	$ 2,027	$ 4,506	$ 40	$ 37,505	$ (303)	$ 37,202
Universal life and investment-type product policy fees	989	1,488	1,025	391	1,436	2	5,331	152	5,483
Net investment income	6,206	2,707	1,084	318	5,944	178	16,437	353	16,790
Other revenues	784	61	34	73	581	110	1,643	42	1,685
Net investment gains (losses)	—	—	—	—	—	—	—	317	317
Net derivative gains (losses)	—	—	—	—	—	—	—	(690)	(690)
Total revenues	29,480	11,158	4,672	2,809	12,467	330	60,916	(129)	60,787
Expenses									
Policyholder benefits and claims and policyholder dividends	21,591	5,211	2,443	1,067	7,523	41	37,876	(295)	37,581
Interest credited to policyholder account balances	1,302	1,298	328	112	1,042	6	4,088	1,088	5,176
Capitalization of DAC	(471)	(1,668)	(321)	(403)	(281)	(7)	(3,151)	(1)	(3,152)
Amortization of DAC and VOBA	471	1,236	184	408	736	8	3,043	(325)	2,718
Amortization of negative VOBA	—	(208)	(1)	(13)	—	—	(222)	(47)	(269)
Interest expense on debt	9	—	2	—	57	1,139	1,207	(50)	1,157
Other expenses	3,706	3,586	1,336	1,323	2,392	597	12,940	355	13,295
Total expenses	26,608	9,455	3,971	2,494	11,469	1,784	55,781	725	56,506
Provision for income tax expense (benefit)	976	479	158	42	292	(948)	999	(306)	693
Adjusted earnings	$ 1,896	$ 1,224	$ 543	$ 273	$ 706	$ (506)	4,136		
Adjustments to:									
Total revenues							(129)		
Total expenses							(725)		
Provision for income tax (expense) benefit							306		
Income (loss) from continuing operations, net of income tax							$ 3,588		$ 3,588

2. Segment Information (continued)

The following table presents total premiums, universal life and investment-type product policy fees and other revenues by major product groups of the Company's segments, as well as Corporate & Other:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Life insurance	$ 20,550	$ 20,330	$ 20,436
Accident & health insurance	14,489	14,002	14,128
Annuities	10,990	6,999	5,552
Property and casualty insurance	3,651	3,613	3,560
Other	1,542	899	694
Total	$ 51,222	$ 45,843	$ 44,370

The following table presents total premiums, universal life and investment-type product policy fees and other revenues associated with the Company's U.S. and foreign operations:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
U.S.	$ 36,078	$ 30,971	$ 29,166
Foreign:			
Japan	6,435	6,444	7,089
Other	8,709	8,428	8,115
Total	$ 51,222	$ 45,843	$ 44,370

Revenues derived from one U.S. segment customer were $6.0 billion for the year ended December 31, 2018, which represented 12% of consolidated premiums, universal life and investment-type product policy fees and other revenues. The revenue was from a single premium received for a pension risk transfer. Revenues derived from any other customer did not exceed 10% of consolidated premiums, universal life and investment-type product policy fees and other revenues for the years ended December 31, 2018, 2017 and 2016.

3. Dispositions

Disposition of MetLife Afore, S.A. de C.V.

In October 2017, the Company entered into a definitive agreement to sell MetLife Afore, S.A. de C.V. ("MetLife Afore"), its pension fund management business in Mexico. As a result of the agreement, a loss of $98 million ($73 million, net of income tax), which includes a reduction to goodwill of $16 million, was recorded for the year ended December 31, 2017 and is reflected within net investment gains (losses).

At December 31, 2017, MetLife Afore reported $3.9 billion and $3.7 billion of total assets and total liabilities, respectively, which primarily consisted of $3.7 billion of separate account assets and liabilities. MetLife Afore's results of operations are included in continuing operations and are reported in the Latin America segment. The transaction closed on February 20, 2018.

Separation of Brighthouse

2018 Sale of FVO Brighthouse Common Stock

In June 2018, the Company sold FVO Brighthouse Common Stock in exchange for $944 million aggregate principal amount of MetLife, Inc. senior notes, which MetLife, Inc. canceled. The Company recorded $327 million of mark-to-market and disposition losses on the FVO Brighthouse Common Stock to net investment gains (losses) for the year ended December 31, 2018. At December 31, 2018, the Company no longer held any shares of Brighthouse Financial, Inc. for its own account; however, certain insurance company separate accounts managed by the Company held shares of Brighthouse Financial, Inc. See Note 12 for further information on this transaction.

3. Dispositions (continued)

2017 Separation of Brighthouse

In January 2016, MetLife, Inc. announced its plan to separate a substantial portion of its former Retail segment, as well as certain portions of its former Corporate Benefit Funding segment and Corporate & Other. MetLife, Inc. subsequently re-segmented the business to be separated and rebranded it as "Brighthouse Financial." On July 6, 2017, MetLife, Inc. announced that the U.S. Securities and Exchange Commission ("SEC") declared Brighthouse Financial, Inc.'s registration statement on Form 10 effective. Additionally, all required state regulatory approvals were granted.

On August 4, 2017, MetLife, Inc. completed the Separation. MetLife, Inc. common shareholders received a distribution of one share of Brighthouse Financial, Inc. common stock for every 11 shares of MetLife, Inc. common stock they owned as of 5:00 p.m., New York City time, on the July 19, 2017 record date. Shareholders of MetLife, Inc. who owned less than 11 shares of common stock, or others who would have otherwise received fractional shares, received cash. MetLife, Inc. distributed 96,776,670 of the 119,773,106 shares of Brighthouse Financial, Inc. common stock outstanding, representing approximately 80.8% of those shares. Certain MetLife affiliates hold MetLife, Inc. common stock and, as a result, participated in the distribution.

MetLife, Inc. retained the remaining ownership interest of 22,996,436 shares, or 19.2%, of Brighthouse Financial, Inc. common stock outstanding and recognized its investment in Brighthouse Financial, Inc. common stock based on the NASDAQ reported market price. The Company elected to record the investment under the FVO as an observable measure of estimated fair value that was aligned with the Company's intent to divest of the retained shares as soon as practicable. Subsequent changes in estimated fair value of the investment were recorded to net investment gains (losses). FVO Brighthouse Common Stock at December 31, 2017 was $1.3 billion reported within FVO Securities. The Company recorded a $1,016 million mark-to-market loss on its retained investment in Brighthouse Financial, Inc. to net investment gains (losses) at the Separation date and an additional $95 million loss to net investment gains (losses) for the change in Brighthouse Financial, Inc.'s common stock share price from the Separation date to December 31, 2017.

The loss recognized in 2017 in connection with the Separation was $1,302 million, net of income tax, which included: (i) a $1,016 million loss on MetLife's retained investment in Brighthouse Financial, Inc., (ii) a $42 million net tax charge and (iii) a $306 million charge, net of income tax, for transaction costs, partially offset by a $61 million gain, net of income tax, for previously deferred intercompany gains realized upon Separation. The $42 million net tax charge is comprised of a $1,093 million tax separation agreement charge offset by $1,051 million of Separation tax benefits. Of the $1,302 million total loss, net of income tax, a $131 million loss, net of income tax, was reported within continuing operations as (i) a $693 million net investment loss, (ii) a $147 million charge within policyholder benefits and claims, (iii) a $218 million charge within other expenses, and (iv) a $927 million income tax benefit. The remaining $1,171 million loss was reported within discontinued operations, which primarily includes a tax-related charge.

The Company incurred pre-tax Separation-related transaction costs of $470 million for the year ended December 31, 2017, primarily related to fees for the terminations of financing arrangements and professional services. The Company incurred pre-tax Separation-related transaction costs of $212 million for the year ended December 31, 2016 primarily related to professional services. For the year ended December 31, 2017, the Company reported $333 million within discontinued operations for fees for the terminations of financing arrangements and costs required to complete the Separation. All other Separation-related transaction costs are recorded in other expenses and reported within continuing operations.

In 2016, the Company recorded a non-cash charge of $260 million ($223 million, net of income tax) for the impairment of Brighthouse goodwill included in discontinued operations. As of the Separation date, the Company evaluated the assets of Brighthouse for potential impairment, and determined that no additional impairment charge was required.

In connection with the Separation, MetLife, Inc. terminated various support agreements with Brighthouse.

3. Dispositions (continued)

Agreements

In connection with the Separation, MetLife and Brighthouse entered into various agreements. The significant agreements were as follows:

Master Separation Agreement

MetLife entered into a master separation agreement with Brighthouse prior to the completion of the distribution. The master separation agreement sets forth agreements with Brighthouse relating to the ownership of certain assets and the allocation of certain liabilities in connection with the Separation. It also sets forth other agreements governing the relationship with Brighthouse after the distribution, including certain payment obligations between the parties.

Tax Agreements

Immediately prior to the Separation, MetLife entered into a tax separation agreement with Brighthouse. Among other things, the tax separation agreement governs the allocation between MetLife and Brighthouse of the responsibility for the taxes of the MetLife group. The tax separation agreement also allocates rights, obligations and responsibilities in connection with certain administrative matters relating to the preparation of tax returns and control of tax audits and other proceedings relating to taxes. For the taxable periods prior to Separation, MetLife and Brighthouse have joint and several liability for the MetLife consolidated U.S. federal income tax returns' current taxes (and the benefits of tax attributes such as losses) allocated to Brighthouse. The tax separation agreement provides that the Brighthouse allocation of taxes could vary depending upon the outcome of Internal Revenue Service ("IRS") examinations. Upon Separation, MetLife, Inc. recorded a current income tax receivable of $1.4 billion and a corresponding payable to Brighthouse reported in other liabilities. In October 2017, in accordance with the tax separation agreement, $729 million of this amount was paid by MetLife, Inc. to Brighthouse. Accordingly, at December 31, 2017, the Company's current income tax receivable and corresponding payable to Brighthouse, reported in other liabilities, was $726 million. In 2018, as a result of filing its U.S. tax return, the Company increased its current income tax receivable and corresponding payable to Brighthouse by $183 million. The adjusted payable of $909 million was settled in 2018 in accordance with the tax separation agreement. In addition, at December 31, 2018, the Company also reported a receivable from Brighthouse of $111 million in other assets, offset by a tax payable of $111 million, of which $68 million was reported in current income tax payable and $43 million was reported in other liabilities. These amounts represent Brighthouse uncertain tax items and audit adjustments while it was a member of the Company's U.S. consolidated tax return.

As part of the tax separation agreement, MetLife, Inc. is liable for the U.S. federal income tax cost of a discrete Separation-related tax charge incurred by Brighthouse. The income tax charge arises from the recapture of certain tax benefits incurred prior to Separation, and is caused by the deconsolidation of Brighthouse from the MetLife tax group at Separation. As a result, MetLife, Inc. recorded a decrease to current income tax recoverable and a charge to provision for income tax expense (benefit) of $1,093 million, which was reported in discontinued operations for the Company.

Additionally, MetLife, Inc. has the right to receive future payments from Brighthouse for a tax asset that Brighthouse received as a result of restructuring prior to the Separation. Included in other assets is a receivable from Brighthouse of $330 million and $333 million, at December 31, 2018 and 2017, respectively, related to these future payments, after a reduction in 2017 of $222 million as a result of U.S. Tax Reform.

Transactions Prior to the Separation

Prior to the Separation, the Company completed the following transactions in 2017.

Contributions of Entities, Mergers and Dividend

In April 2017, following receipt of applicable regulatory approvals, MetLife contributed certain captive reinsurance companies to Brighthouse Life Insurance Company ("Brighthouse Insurance"), which were merged into Brighthouse Reinsurance Company of Delaware ("BRCD"), a newly-formed captive reinsurance company that is wholly-owned by Brighthouse Insurance.

3. Dispositions (continued)

In July 2017, MetLife, Inc. contributed the voting common interests of Brighthouse Holdings, LLC, a subsidiary of MetLife, Inc. at that time, to Brighthouse Financial, Inc. Brighthouse Holdings, LLC was at that time an intermediate holding company which owned all of the subsidiaries within Brighthouse.

In August 2017, Brighthouse Financial, Inc. paid a cash dividend to MetLife, Inc. of $1.8 billion in connection with the Separation.

Termination of Financing Arrangements

In April 2017, MetLife, Inc. and MetLife Reinsurance Company of South Carolina ("MRSC") terminated the MRSC collateral financing arrangement associated with secondary guarantees. As a result, the $2.8 billion collateral financing arrangement liability outstanding was extinguished utilizing $2.8 billion of assets held in trust, with the remaining $590 million of assets held in trust returned to MetLife, Inc. as a cash return of capital from a subsidiary. Total fees associated with the termination were $37 million and were reported in discontinued operations.

In April 2017, MetLife, Inc. and MetLife Reinsurance Company of Vermont ("MRV") terminated the $4.3 billion committed facility, and MetLife, Inc. and MRSC terminated the $3.5 billion committed facility. Total fees associated with the terminations were $257 million and were reported in discontinued operations.

See Note 14 for information on the junior subordinated debentures in connection with the Separation.

New Financing Arrangements

In April 2017, BRCD entered into a new financing arrangement with a pool of highly rated third-party reinsurers with a total capacity of $10.0 billion. This financing arrangement consists of credit-linked notes that each have a term of 20 years.

In June 2017, Brighthouse Holdings, LLC issued 50,000 units of 6.50% fixed rate cumulative preferred units to MetLife, Inc. and in turn MetLife, Inc. sold the preferred units to third-party investors, for net proceeds of $49 million.

In June 2017, Brighthouse Financial, Inc. issued $1.5 billion of senior notes due in June 2027 (the "2027 Senior Notes") which bear interest at a fixed rate of 3.70%, payable semi-annually. Also in June 2017, Brighthouse Financial, Inc. issued $1.5 billion of senior notes due in June 2047 (the "2047 Senior Notes," and together with the 2027 Senior Notes, the "Senior Notes") which bear interest at a fixed rate of 4.70%, payable semi-annually. In connection with the issuance of the Senior Notes, MetLife, Inc. had initially guaranteed the Senior Notes on a senior unsecured basis. The guarantee was released, in accordance with its terms, upon Separation.

In June 2017, subsequent to the issuance of the Senior Notes, the borrowing capacity under Brighthouse Financial, Inc.'s three-year senior unsecured delayed draw term loan agreement (the "2016 Term Loan Agreement") was decreased from $3.0 billion to $536 million. On July 21, 2017, concurrently with entering into a new term loan agreement described below, Brighthouse Financial, Inc. terminated the 2016 Term Loan Agreement without penalty.

In July 2017, Brighthouse Financial, Inc. entered into a new $600 million senior unsecured delayed draw term loan agreement (the "2017 Term Loan Agreement"). Under the 2017 Term Loan Agreement, Brighthouse Financial, Inc. may borrow up to a maximum of $600 million which may be used for general corporate purposes, including in connection with the Separation, of which $500 million was available prior to the Separation. The 2017 Term Loan Agreement contains certain covenants that could restrict the operations and use of funds of Brighthouse. On August 2, 2017, Brighthouse Financial, Inc. borrowed $500 million under the 2017 Term Loan Agreement in connection with the Separation.

Ongoing Transactions with Brighthouse

The Company considered all of its continuing involvement with Brighthouse in determining whether to deconsolidate and present Brighthouse results as discontinued operations, including the agreements described above and the ongoing transactions described below.

3. Dispositions (continued)

The Company entered into reinsurance, committed facility, structured settlement, and contract administrative services transactions with Brighthouse in the normal course of business and such transactions will continue based upon business needs. In addition, prior to and in connection with the Separation, the Company entered into various other agreements, including investment management, transition services and employee matters agreements, with Brighthouse for services necessary for both the Company and Brighthouse to conduct their activities. Intercompany transactions prior to the Separation between the Company and Brighthouse are eliminated and excluded from the consolidated statements of operations and consolidated balance sheets. Transactions between the Company and Brighthouse that continue after the Separation are included on the Company's consolidated statements of operations and consolidated balance sheets.

In June 2018, the Company sold FVO Brighthouse Common Stock and as a result the Company no longer considers Brighthouse to be a related party. Therefore, the following discussion of the ongoing transactions with Brighthouse only includes disclosures of related party amounts through June 30, 2018 and at December 31, 2017. However, since the Company considers the reinsurance transactions and the transition service agreement discussed below to have a significant impact on its consolidated statements of operations, it has updated these disclosures through December 31, 2018.

Reinsurance

The Company entered into reinsurance transactions with Brighthouse in the normal course of business and such transactions will continue based upon business needs. Information regarding the significant effects of reinsurance transactions with Brighthouse was as follows:

	Included on Consolidated Statements of Operations		Excluded from Consolidated Statements of Operations	
	Years Ended December 31,		Years Ended December 31,	
	2018	2017 (1)	2017 (2)	2016
	(In millions)			
Premiums				
Reinsurance assumed	$ 401	$ 183	$ 248	$ 462
Reinsurance ceded	(13)	(4)	(7)	(9)
Net premiums	$ 388	$ 179	$ 241	$ 453
Universal life and investment-type product policy fees				
Reinsurance assumed	$ 7	$ (4)	$ (6)	$ (2)
Reinsurance ceded	(96)	(44)	(55)	(102)
Net universal life and investment-type product policy fees	$ (89)	$ (48)	$ (61)	$ (104)
Policyholder benefits and claims				
Reinsurance assumed	$ 328	$ 150	$ 196	$ 385
Reinsurance ceded	(36)	(22)	(16)	(23)
Net policyholder benefits and claims	$ 292	$ 128	$ 180	$ 362
Interest credited to policyholder account balances				
Reinsurance assumed	$ 14	$ 6	$ 10	$ 16
Reinsurance ceded	(71)	(30)	(42)	(75)
Net interest credited to policyholder account balances	$ (57)	$ (24)	$ (32)	$ (59)
Other expenses				
Reinsurance assumed	$ 105	$ 39	$ 10	$ 88
Reinsurance ceded	(29)	7	(28)	(29)
Net other expenses	$ 76	$ 46	$ (18)	$ 59

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(1) Includes transactions after the Separation.

(2) Includes transactions prior to the Separation.

3. Dispositions (continued)

Information regarding the related party effects of reinsurance transactions with Brighthouse included on the consolidated balance sheets was as follows at:

	December 31, 2017	
	Assumed	Ceded
	(In millions)	
Assets		
Premiums, reinsurance and other receivables	$ 167	$ 1,793
Deferred policy acquisition costs and value of business acquired	384	(40)
Total assets	$ 551	$ 1,753
Liabilities		
Future policy benefits	$ 1,734	$ —
Other policy-related balances	119	28
Other liabilities	1,458	19
Total liabilities	$ 3,311	$ 47

Transition Services

In connection with the Separation, the Company entered into a transition services agreement with Brighthouse for services necessary for Brighthouse to conduct its activities. The services are expected to continue up to 36 months after the date of Separation, with certain services potentially to be made available for several years thereafter. For the year ended December 31, 2018, the Company recognized $305 million in other revenues for services provided under such transition services agreement. After the Separation, for the year ended December 31, 2017, the Company recognized $140 million as a reduction to other expenses for transitional services provided under the agreement. Prior to the Separation, for the year ended December 31, 2017, the Company charged Brighthouse $191 million for services provided under the agreement, which were intercompany transactions and eliminated and excluded from the consolidated statements of operations.

Investment Management

In connection with the Separation, the Company entered into investment management services agreements with Brighthouse. Each agreement had an initial term of 18 months after the date of Separation, after which period either party to the agreements was permitted to terminate upon notice to the other party. On February 5, 2019, the Company entered into a new investment management services agreement with Brighthouse that remains in effect until terminated by either party upon notice. After the Separation, for the years ended December 31, 2018 and 2017, the Company recognized related party revenue of $61 million and $48 million in other revenues for services provided under the agreements. Prior to the Separation, for the year ended December 31, 2017, the Company charged Brighthouse $57 million for services provided under the agreements, which were intercompany transactions and eliminated and excluded from the consolidated statements of operations.

Committed Facility

MRV and MetLife, Inc. have a $2.9 billion committed facility which is used as collateral for certain affiliated reinsurance liabilities. At December 31, 2017, Brighthouse was a related party beneficiary of $2.4 billion of letters of credit issued under this committed facility and in consideration Brighthouse reimbursed MetLife, Inc. for a portion of the letter of credit fees. Prior to the Separation, the Company entered into the committed facility with Brighthouse in the normal course of business and such transactions will continue based upon business needs.

See "— Transactions Prior to the Separation — Termination of Financing Arrangements" for additional transactions with Brighthouse.

3. Dispositions (continued)

Other

The Company has existing assumed structured settlement claim obligations as an assignment company for Brighthouse. These liabilities are measured at the present value of the periodic claims to be provided and reported as other policy-related balances. The Company receives a fee for assuming these claim obligations and, as the assignee of the claim, is legally obligated to ensure periodic payments are made to the claimant. The Company purchased annuities from Brighthouse to fund these obligations and designates payments to be made directly to the claimant by Brighthouse as the annuity writer. The aggregate contract values of annuities funding structured settlement claims are recorded as an asset for which the Company has also recorded an unpaid claim obligation reported in other policy-related balances. Such aggregated related party contract values were $1.3 billion at December 31, 2017. The Company entered into these transactions with Brighthouse in the normal course of business and such transactions will continue based upon business needs.

The Company provides services necessary for Brighthouse to conduct its business, which primarily include contract administrative services for certain Brighthouse investment-type products. After the Separation, for the years ended December 31, 2018 and 2017, the Company recognized related party revenue of $63 million and $54 million for administrative services provided to Brighthouse. Prior to the Separation, during the year ended December 31, 2017, the Company provided administrative services to Brighthouse for $73 million which were intercompany transactions and eliminated and excluded from the consolidated statements of operations. The Company entered into these transactions with Brighthouse in the normal course of business and such transactions will continue based upon business needs.

In connection with the Separation, the Company entered into an employee matters agreement with Brighthouse to allocate obligations and responsibilities relating to employee compensation and benefit plans and other related matters. The employee matters agreement provides that MetLife will reimburse Brighthouse for certain pension benefit payments, retiree health and life benefit payments and deferred compensation payments. Included in other liabilities at December 31, 2017, is a related party payable to Brighthouse of $186 million related to these future payments.

At December 31, 2017, the Company had a related party receivable from Brighthouse of $97 million related to services provided and a related party payable to Brighthouse of $50 million related to services received.

Discontinued Operations

The following table presents the amounts related to the operations and loss on disposal of Brighthouse that have been reflected in discontinued operations:

3. Dispositions (continued)

	For the Years Ended December 31,	
	2017 (1)	2016
	(In millions)	
Revenues		
Premiums	$ 820	$ 1,951
Universal life and investment-type product policy fees	2,201	3,724
Net investment income	1,783	3,157
Other revenues	150	74
Total net investment gains (losses)	(48)	(140)
Net derivative gains (losses)	(1,061)	(5,886)
Total revenues	3,845	2,880
Expenses		
Policyholder benefits and claims	2,217	4,487
Interest credited to policyholder account balances	620	1,107
Policyholder dividends	16	34
Goodwill impairment	—	260
Other expenses	853	1,333
Total expenses	3,706	7,221
Income (loss) from discontinued operations before provision for income tax and loss on disposal of discontinued operations	139	(4,341)
Provision for income tax expense (benefit)	(46)	(1,607)
Income (loss) from discontinued operations before loss on disposal of discontinued operations, net of income tax	185	(2,734)
Transaction costs associated with the Separation, net of income tax	(216)	—
Tax charges associated with the Separation	(955)	—
Income (loss) on disposal of discontinued operations, net of income tax	(1,171)	—
Income (loss) from discontinued operations, net of income tax	$ (986)	$ (2,734)

(1) Includes transactions prior to the Separation.

3. Dispositions (continued)

In the consolidated statements of cash flows, the cash flows from discontinued operations are not separately classified. The following table presents selected financial information regarding cash flows of the discontinued operations.

	For the Years Ended December 31,	
	2017	2016
	(In millions)	
Net cash provided by (used in):		
Operating activities	$ 1,329	$ 3,697
Investing activities	$ (2,732)	$ 4,674
Financing activities	$ (367)	$ (4,715)

U.S. Retail Advisor Force Divestiture

In July 2016, MetLife, Inc. completed the sale to Massachusetts Mutual Life Insurance Company ("MassMutual") of its U.S. retail advisor force and certain assets associated with the MetLife Premier Client Group, including all of the issued and outstanding shares of MetLife's affiliated broker-dealer, MetLife Securities, Inc., a wholly-owned subsidiary of MetLife, Inc. (collectively, the "U.S. Retail Advisor Force Divestiture") for $291 million. MassMutual assumed all of the liabilities related to such assets that arise or occur after the closing of the sale. The Company recorded a gain of $103 million ($58 million, net of income tax), in net investment gains (losses) for the year ended December 31, 2016. See Notes 10 and 17 for discussion of certain charges related to the sale.

4. Insurance

Insurance Liabilities

Insurance liabilities are comprised of future policy benefits, policyholder account balances and other policy-related balances. Information regarding insurance liabilities by segment, as well as Corporate & Other, was as follows at:

	December 31, 2018	December 31, 2017
	(In millions)	
U.S.	$ 141,641	$ 136,065
Asia	108,456	99,404
Latin America	16,131	16,758
EMEA	17,069	19,579
MetLife Holdings	102,371	103,372
Corporate & Other	1,334	829
Total	$ 387,002	$ 376,007

Future policy benefits are measured as follows:

Product Type:	Measurement Assumptions:
Participating life	Aggregate of (i) net level premium reserves for death and endowment policy benefits (calculated based upon the non-forfeiture interest rate, ranging from 3% to 7% for U.S. business and less than 1% to 14% for non-U.S. business and mortality rates guaranteed in calculating the cash surrender values described in such contracts); and (ii) the liability for terminal dividends for U.S. business.
Nonparticipating life	Aggregate of the present value of future expected benefit payments and related expenses less the present value of future expected net premiums. Assumptions as to mortality and persistency are based upon the Company's experience when the basis of the liability is established. Interest rate assumptions for the aggregate future policy benefit liabilities range from 2% to 11% for U.S. business and less than 1% to 13% for non-U.S. business.
Individual and group traditional fixed annuities after annuitization	Present value of future expected payments. Interest rate assumptions used in establishing such liabilities range from 1% to 11% for U.S. business and less than 1% to 11% for non-U.S. business.
Non-medical health insurance	The net level premium method and assumptions as to future morbidity, withdrawals and interest, which provide a margin for adverse deviation. Interest rate assumptions used in establishing such liabilities range from 1% to 7% (primarily related to U.S. business).
Disabled lives	Present value of benefits method and experience assumptions as to claim terminations, expenses and interest. Interest rate assumptions used in establishing such liabilities range from 2% to 8% for U.S. business and less than 1% to 9% for non-U.S. business.
Property and casualty insurance	The amount estimated for claims that have been reported but not settled and claims incurred but not reported are based upon the Company's historical experience and other actuarial assumptions that consider the effects of current developments, anticipated trends and risk management programs, reduced for anticipated salvage and subrogation.

Participating business represented 3% of the Company's life insurance in-force at both December 31, 2018 and 2017. Participating policies represented 14%, 15% and 16% of gross traditional life insurance premiums for the years ended December 31, 2018, 2017 and 2016, respectively.

Policyholder account balances are equal to: (i) policy account values, which consist of an accumulation of gross premium payments and investment performance; (ii) credited interest, ranging from less than 1% to 13% for U.S. business and less than 1% to 15% for non-U.S. business, less expenses, mortality charges and withdrawals; and (iii) fair value adjustments relating to business combinations.

4. Insurance (continued)

Guarantees

The Company issues directly and assumes through reinsurance variable annuity products with guaranteed minimum benefits. GMABs, the non-life contingent portion of GMWBs and certain non-life contingent portions of GMIBs are accounted for as embedded derivatives in policyholder account balances and are further discussed in Note 9. Guarantees accounted for as insurance liabilities include:

Guarantee:		Measurement Assumptions:
GMDBs	• A return of purchase payment upon death even if the account value is reduced to zero. • An enhanced death benefit may be available for an additional fee.	• Present value of expected death benefits in excess of the projected account balance recognizing the excess ratably over the accumulation period based on the present value of total expected assessments. • Assumptions are consistent with those used for amortizing DAC, and are thus subject to the same variability and risk. • Investment performance and volatility assumptions are consistent with the historical experience of the appropriate underlying equity index, such as the S&P 500 Index. • Benefit assumptions are based on the average benefits payable over a range of scenarios.
GMIBs	• After a specified period of time determined at the time of issuance of the variable annuity contract, a minimum accumulation of purchase payments, even if the account value is reduced to zero, that can be annuitized to receive a monthly income stream that is not less than a specified amount. • Certain contracts also provide for a guaranteed lump sum return of purchase premium in lieu of the annuitization benefit.	• Present value of expected income benefits in excess of the projected account balance at any future date of annuitization and recognizing the excess ratably over the accumulation period based on present value of total expected assessments. • Assumptions are consistent with those used for estimating GMDB liabilities. • Calculation incorporates an assumption for the percentage of the potential annuitizations that may be elected by the contractholder.
GMWBs	• A return of purchase payment via partial withdrawals, even if the account value is reduced to zero, provided that cumulative withdrawals in a contract year do not exceed a certain limit. • Certain contracts include guaranteed withdrawals that are life contingent.	• Expected value of the life contingent payments and expected assessments using assumptions consistent with those used for estimating the GMDB liabilities.

The Company also issues other annuity contracts that apply a lower rate on funds deposited if the contractholder elects to surrender the contract for cash and a higher rate if the contractholder elects to annuitize. These guarantees include benefits that are payable in the event of death, maturity or at annuitization. Certain other annuity contracts contain guaranteed annuitization benefits that may be above what would be provided by the current account value of the contract. Additionally, the Company issues universal and variable life contracts where the Company contractually guarantees to the contractholder a secondary guarantee or a guaranteed paid-up benefit.

4. Insurance (continued)

Information regarding the liabilities for guarantees (excluding base policy liabilities and embedded derivatives) relating to annuity and universal and variable life contracts was as follows:

	Annuity Contracts		Universal and Variable Life Contracts		
	GMDBs and GMWBs	GMIBs	Secondary Guarantees	Paid-Up Guarantees	Total
			(In millions)		
Direct and Assumed:					
Balance at January 1, 2016	$ 364	$ 524	$ 2,726	$ 306	$ 3,920
Incurred guaranteed benefits (1)	102	78	291	25	496
Paid guaranteed benefits	(15)	(1)	(28)	—	(44)
Balance at December 31, 2016	451	601	2,989	331	4,372
Incurred guaranteed benefits (1)	91	121	233	16	461
Paid guaranteed benefits	(14)	(2)	(34)	—	(50)
Balance at December 31, 2017	528	720	3,188	347	4,783
Incurred guaranteed benefits (1)	(78)	178	291	12	403
Paid guaranteed benefits	(22)	—	(37)	—	(59)
Balance at December 31, 2018	$ 428	$ 898	$ 3,442	$ 359	$ 5,127
Ceded:					
Balance at January 1, 2016	$ 19	$ 6	$ 218	$ 214	$ 457
Incurred guaranteed benefits	—	(1)	(27)	17	(11)
Paid guaranteed benefits	5	—	—	—	5
Balance at December 31, 2016	24	5	191	231	451
Incurred guaranteed benefits	4	1	50	11	66
Paid guaranteed benefits	6	—	—	—	6
Balance at December 31, 2017	34	6	241	242	523
Incurred guaranteed benefits	(38)	4	28	9	3
Paid guaranteed benefits	4	—	—	—	4
Balance at December 31, 2018	$ —	$ 10	$ 269	$ 251	$ 530
Net:					
Balance at January 1, 2016	$ 345	$ 518	$ 2,508	$ 92	$ 3,463
Incurred guaranteed benefits	102	79	318	8	507
Paid guaranteed benefits	(20)	(1)	(28)	—	(49)
Balance at December 31, 2016	427	596	2,798	100	3,921
Incurred guaranteed benefits	87	120	183	5	395
Paid guaranteed benefits	(20)	(2)	(34)	—	(56)
Balance at December 31, 2017	494	714	2,947	105	4,260
Incurred guaranteed benefits	(40)	174	263	3	400
Paid guaranteed benefits	(26)	—	(37)	—	(63)
Balance at December 31, 2018	$ 428	$ 888	$ 3,173	$ 108	$ 4,597

(1) Secondary guarantees include the effects of foreign currency translation of $62 million, $78 million and $119 million at December 31, 2018, 2017 and 2016, respectively.

4. Insurance (continued)

Information regarding the Company's guarantee exposure, which includes direct and assumed business, but excludes offsets from hedging or ceded reinsurance, if any, was as follows at:

	December 31,			
	2018		2017	
	In the Event of Death	At Annuitization	In the Event of Death	At Annuitization
	(Dollars in millions)			
Annuity Contracts:				
Variable Annuity Guarantees:				
Total account value (1), (2), (3)	$ 56,235	$ 21,628	$ 66,724	$ 26,223
Separate account value (1)	$ 37,342	$ 19,839	$ 45,431	$ 24,336
Net amount at risk (2)	$ 2,768 (4)	$ 483 (5)	$ 1,238 (4)	$ 525 (5)
Average attained age of contractholders	66 years	65 years	65 years	65 years
Other Annuity Guarantees:				
Total account value (1), (3)	N/A	$ 1,272	N/A	$ 1,424
Net amount at risk	N/A	$ 489 (6)	N/A	$ 569 (6)
Average attained age of contractholders	N/A	50 years	N/A	50 years

	December 31,			
	2018		2017	
	Secondary Guarantees	Paid-Up Guarantees	Secondary Guarantees	Paid-Up Guarantees
	(Dollars in millions)			
Universal and Variable Life Contracts:				
Total account value (1), (3)	$ 8,943	$ 3,070	$ 9,036	$ 3,207
Net amount at risk (7)	$ 64,154	$ 15,539	$ 66,956	$ 16,615
Average attained age of policyholders	57 years	64 years	56 years	63 years

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(1) The Company's annuity and life contracts with guarantees may offer more than one type of guarantee in each contract. Therefore, the amounts listed above may not be mutually exclusive.

(2) Includes amounts, which are not reported on the consolidated balance sheets, from assumed variable annuity guarantees from the Company's former operating joint venture in Japan.

(3) Includes the contractholder's investments in the general account and separate account, if applicable.

(4) Defined as the death benefit less the total account value, as of the balance sheet date. It represents the amount of the claim that the Company would incur if death claims were filed on all contracts on the balance sheet date and includes any additional contractual claims associated with riders purchased to assist with covering income taxes payable upon death.

(5) Defined as the amount (if any) that would be required to be added to the total account value to purchase a lifetime income stream, based on current annuity rates, equal to the minimum amount provided under the guaranteed benefit. This amount represents the Company's potential economic exposure to such guarantees in the event all contractholders were to annuitize on the balance sheet date, even though the contracts contain terms that allow annuitization of the guaranteed amount only after the 10th anniversary of the contract, which not all contractholders have achieved.

(6) Defined as either the excess of the upper tier, adjusted for a profit margin, less the lower tier, as of the balance sheet date or the amount (if any) that would be required to be added to the total account value to purchase a lifetime income stream, based on current annuity rates, equal to the minimum amount provided under the guaranteed benefit. These amounts represent the Company's potential economic exposure to such guarantees in the event all contractholders were to annuitize on the balance sheet date.

4. Insurance (continued)

(7) Defined as the guarantee amount less the account value, as of the balance sheet date. It represents the amount of the claim that the Company would incur if death claims were filed on all contracts on the balance sheet date.

Account balances of contracts with guarantees were invested in separate account asset classes as follows at:

	December 31, 2018	December 31, 2017
	(In millions)	
Fund Groupings:		
Equity	$ 19,579	$ 23,213
Balanced	17,073	20,859
Bond	5,299	5,983
Money Market	277	252
Total	$ 42,228	$ 50,307

Obligations Under Funding Agreements

The Company issues fixed and floating rate funding agreements, which are denominated in either U.S. dollars or foreign currencies, to certain unconsolidated special purpose entities ("SPEs") that have issued either debt securities or commercial paper for which payment of interest and principal is secured by such funding agreements. During the years ended December 31, 2018, 2017 and 2016, the Company issued $41.8 billion, $42.7 billion and $39.7 billion, respectively, and repaid $43.7 billion, $41.4 billion and $38.5 billion, respectively, of such funding agreements. At December 31, 2018 and 2017, liabilities for funding agreements outstanding, which are included in policyholder account balances, were $32.3 billion and $34.2 billion, respectively.

Certain of the Company's subsidiaries are members of FHLBanks. Holdings of common stock of FHLBanks, included in other invested assets, were as follows at:

	December 31, 2018	December 31, 2017
	(In millions)	
FHLB of New York	$ 724	$ 733
FHLB of Des Moines	$ 17	$ 35
FHLB of Pittsburgh	$ 19	$ 11

4. Insurance (continued)

Such subsidiaries have also entered into funding agreements with FHLBanks and a subsidiary of the Federal Agricultural Mortgage Corporation, a federally chartered instrumentality of the U.S. ("Farmer Mac"). The liability for such funding agreements is included in policyholder account balances. Information related to such funding agreements was as follows at:

	Liability		Collateral	
	December 31,			
	2018	2017	2018	2017
	(In millions)			
FHLB of New York (1)	$ 14,245	$ 14,445	$ 16,557 (2)	$ 16,605 (2)
Farmer Mac (3)	$ 2,550	$ 2,550	$ 2,639	$ 2,644
FHLB of Des Moines (1)	$ 425	$ 625	$ 709 (2)	$ 701 (2)
FHLB of Pittsburgh (1)	$ 450	$ 250	$ 590 (2)	$ 311 (2)

(1) Represents funding agreements issued to the applicable FHLBank in exchange for cash and for which such FHLBank has been granted a lien on certain assets, some of which are in the custody of such FHLBank, including residential mortgage-backed securities ("RMBS"), to collateralize obligations under advances evidenced by funding agreements. The applicable subsidiary of the Company is permitted to withdraw any portion of the collateral in the custody of such FHLBank as long as there is no event of default and the remaining qualified collateral is sufficient to satisfy the collateral maintenance level. Upon any event of default by such subsidiary, the applicable FHLBank's recovery on the collateral is limited to the amount of such subsidiary's liability to such FHLBank.

(2) Advances are collateralized by mortgage-backed securities. The amount of collateral presented is at estimated fair value.

(3) Represents funding agreements issued to a subsidiary of Farmer Mac, as well as certain SPEs that have issued debt securities for which payment of interest and principal is secured by such funding agreements, and such debt securities are also guaranteed as to payment of interest and principal by Farmer Mac. The obligations under these funding agreements are secured by a pledge of certain eligible agricultural mortgage loans and may, under certain circumstances, be secured by other qualified collateral. The amount of collateral presented is at carrying value.

Liabilities for Unpaid Claims and Claim Expenses

The following is information about incurred and paid claims development by segment as of December 31, 2018. Such amounts are presented net of reinsurance, and are not discounted. The tables present claims development and cumulative claim payments by incurral year. The development tables are only presented for significant short-duration product liabilities within each segment. Where practical, up to 10 years of history has been provided. In order to eliminate potential fluctuations related to foreign exchange rates, liabilities and payments denominated in a foreign currency have been translated using the 2018 year end spot rates for all periods presented. The information about incurred and paid claims development prior to 2016 is presented as supplementary information.

4. Insurance (continued)

U.S.

Group Life - Term

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance								At December 31, 2018	
	For the Years Ended December 31,									
	(Unaudited)									
Incurral Year	2011	2012	2013	2014	2015	2016	2017	2018	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)									
2011	$ 6,318	$ 6,290	$ 6,293	$ 6,269	$ 6,287	$ 6,295	$ 6,294	$ 6,295	$ 1	207,608
2012		6,503	6,579	6,569	6,546	6,568	6,569	6,569	1	209,047
2013			6,637	6,713	6,719	6,720	6,730	6,720	3	211,341
2014				6,986	6,919	6,913	6,910	6,914	5	213,388
2015					7,040	7,015	7,014	7,021	11	213,243
2016						7,125	7,085	7,095	14	210,706
2017							7,432	7,418	31	246,364
2018								7,757	899	203,329
Total								55,789		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance								(53,786)		
All outstanding liabilities for incurral years prior to 2011, net of reinsurance								9		
Total unpaid claims and claim adjustment expenses, net of reinsurance								$ 2,012		

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance							
	For the Years Ended December 31,							
	(Unaudited)							
Incurral Year	2011	2012	2013	2014	2015	2016	2017	2018
	(In millions)							
2011	$ 4,982	$ 6,194	$ 6,239	$ 6,256	$ 6,281	$ 6,290	$ 6,292	$ 6,295
2012		5,132	6,472	6,518	6,532	6,558	6,565	6,566
2013			5,216	6,614	6,664	6,678	6,711	6,715
2014				5,428	6,809	6,858	6,869	6,902
2015					5,524	6,913	6,958	6,974
2016						5,582	6,980	7,034
2017							5,761	7,292
2018								6,008
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance								$ 53,786

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration as of December 31, 2018:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance							
Years	1	2	3	4	5	6	7	8
Group Life - Term	78.2%	20.2%	0.7%	0.2%	0.4%	0.1%	—%	—%

4. Insurance (continued)

Group Long-Term Disability

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance								At December 31, 2018	
	For the Years Ended December 31,									
	(Unaudited)									
Incurral Year	2011	2012	2013	2014	2015	2016	2017	2018	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)									
2011	$ 955	$ 916	$ 894	$ 914	$ 924	$ 923	$ 918	$ 917	$ —	21,643
2012		966	979	980	1,014	1,034	1,037	1,021	—	20,085
2013			1,008	1,027	1,032	1,049	1,070	1,069	—	21,135
2014				1,076	1,077	1,079	1,101	1,109	—	22,846
2015					1,082	1,105	1,093	1,100	—	21,177
2016						1,131	1,139	1,159	6	17,897
2017							1,244	1,202	29	15,968
2018								1,240	621	8,208
Total								8,817		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance								(3,815)		
All outstanding liabilities for incurral years prior to 2011, net of reinsurance								2,110		
Total unpaid claims and claim adjustment expenses, net of reinsurance								$ 7,112		

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance							
	For the Years Ended December 31,							
	(Unaudited)							
Incurral Year	2011	2012	2013	2014	2015	2016	2017	2018
	(In millions)							
2011	$ 44	$ 217	$ 337	$ 411	$ 478	$ 537	$ 588	$ 635
2012		43	229	365	453	524	591	648
2013			43	234	382	475	551	622
2014				51	266	428	526	609
2015					50	264	427	524
2016						49	267	433
2017							56	290
2018								54
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance								$ 3,815

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration as of December 31, 2018:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance							
Years	1	2	3	4	5	6	7	8
Group Long-Term Disability	4.4%	18.9%	14.0%	8.6%	7.2%	6.5%	5.6%	5.1%

4. Insurance (continued)

Significant Methodologies and Assumptions

Group Life - Term and Group Long-Term Disability incurred but not paid ("IBNP") liabilities are developed using a combination of loss ratio and development methods. Claims in the course of settlement are then subtracted from the IBNP liabilities, resulting in the IBNR liabilities. The loss ratio method is used in the period in which the claims are neither sufficient nor credible. In developing the loss ratios, any material rate increases that could change the underlying premium without affecting the estimated incurred losses are taken into account. For periods where sufficient and credible claim data exists, the development method is used based on the claim triangles which categorize claims according to both the period in which they were incurred and the period in which they were paid, adjudicated or reported. The end result is a triangle of known data that is used to develop known completion ratios and factors. Claims paid are then subtracted from the estimated ultimate incurred claims to calculate the IBNP liability.

An expense liability is held for the future expenses associated with the payment of incurred but not yet paid claims (IBNR and pending). This is expressed as a percentage of the underlying claims liability and is based on past experience and the anticipated future expense structure.

For Group Life - Term and Group Long-Term Disability, first year incurred claims and allocated loss adjustment expenses increased in 2018 compared to the 2017 incurral year due to the growth in the size of the business.

There were no significant changes in methodologies during 2018. The assumptions used in calculating the unpaid claims and claim adjustment expenses for Group Life - Term and Group Long-Term Disability are updated annually to reflect emerging trends in claim experience.

No additional premiums or return premiums have been accrued as a result of the prior year development.

Liabilities for Group Life - Term unpaid claims and claim adjustment expenses are not discounted.

The liabilities for Group Long-Term Disability unpaid claims and claim adjustment expenses were $6.0 billion at both December 31, 2018 and 2017. Using interest rates ranging from 3% to 8%, based on the incurral year, the total discount applied to these liabilities was $1.3 billion at both December 31, 2018 and 2017. The amount of interest accretion recognized was $509 million, $510 million and $565 million for the years ended December 31, 2018, 2017 and 2016, respectively. These amounts were reflected in policyholder benefits and claims.

For Group Life - Term, claims were based upon individual death claims. For Group Long-Term Disability, claim frequency was determined by the number of reported claims as identified by a unique claim number assigned to individual claimants. Claim counts initially include claims that do not ultimately result in a liability. These claims are omitted from the claim counts once it is determined that there is no liability.

The Group Long-Term Disability IBNR included in the development tables above was developed using discounted cash flows, and is presented on a discounted basis.

4. Insurance (continued)

Property & Casualty - Auto Liability

Incurral Year	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance — For the Years Ended December 31, (Unaudited) 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	At December 31, 2018 — Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2009	$ 862	$ 877	$ 853	$ 826	$ 823	$ 817	$ 815	$ 815	$ 814	$ 814	$ —	204,751
2010		863	873	853	847	833	826	825	822	823	—	204,481
2011			863	876	869	855	846	843	843	842	1	204,974
2012				882	881	869	851	846	847	846	1	199,362
2013					911	900	882	878	876	876	3	204,367
2014						897	910	913	910	911	6	207,572
2015							975	984	979	980	14	212,693
2016								1,012	1,002	997	36	210,627
2017									957	960	64	190,601
2018										938	166	167,521
Total										8,987		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(7,854)		
All outstanding liabilities for incurral years prior to 2009, net of reinsurance										27		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 1,160		

Incurral Year	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance — For the Years Ended December 31, (Unaudited) 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(In millions)									
2009	$ 321	$ 563	$ 681	$ 755	$ 789	$ 803	$ 810	$ 813	$ 813	$ 814
2010		319	572	695	762	796	810	816	818	820
2011			324	590	711	777	810	825	831	835
2012				333	600	715	783	815	831	840
2013					346	618	743	809	843	859
2014						352	648	777	844	884
2015							384	691	822	903
2016								396	702	842
2017									379	686
2018										371
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 7,854

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration as of December 31, 2018:

Years	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance — 1	2	3	4	5	6	7	8	9	10
Auto Liability	39.2%	31.2%	14.2%	8.0%	4.0%	1.8%	0.9%	0.4%	0.1%	—%

4. Insurance (continued)

Property & Casualty - Home

Incurral Year	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance — For the Years Ended December 31, (Unaudited) 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	At December 31, 2018 — Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2009	$ 506	$ 523	$ 510	$ 507	$ 503	$ 501	$ 498	$ 497	$ 497	$ 497	$ —	106,620
2010		573	589	587	584	582	581	580	579	579	—	115,517
2011			891	868	843	840	835	835	834	833	—	166,461
2012				714	713	703	698	696	694	693	2	146,545
2013					654	652	635	635	634	632	1	107,548
2014						707	702	704	705	701	3	113,649
2015							759	753	752	746	4	107,211
2016								740	743	743	14	107,128
2017									747	763	19	115,043
2018										671	67	91,726
Total										6,858		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(6,634)		
All outstanding liabilities for incurral years prior to 2009, net of reinsurance										1		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 225		

Incurral Year	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance — For the Years Ended December 31, (Unaudited) 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(In millions)									
2009	$ 385	$ 476	$ 486	$ 492	$ 495	$ 495	$ 496	$ 496	$ 496	$ 496
2010		436	546	562	571	574	577	578	578	579
2011			690	804	819	825	827	830	832	833
2012				559	668	681	687	689	690	690
2013					505	604	618	626	628	629
2014						574	670	685	692	695
2015							603	717	731	736
2016								593	704	720
2017									610	727
2018										529
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 6,634

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration as of December 31, 2018:

Years	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance 1	2	3	4	5	6	7	8	9	10
Home	79.8%	15.7%	2.1%	1.0%	0.4%	0.2%	0.2%	—%	—%	0.1%

4. Insurance (continued)

Significant Methodologies and Assumptions

The liability for unpaid claim and claim adjustment expenses for the Property & Casualty business is determined by examining the historical claims and allocated claim adjustment expenses data. This data, which is gross of salvage and subrogation, is classified by incurral year and coverage and includes paid claims data and reported liabilities. For homeowners and auto liability injury claims, the reported liabilities are set by the Company's claims adjusters based on the individual case, and a supplemental liability is added based on the historical development of reported claims. These supplemental liabilities are estimated by coverage based on adjusted report year data triangles to determine the estimated ultimate claim liability. Adjustments are made for settlement rates and average case liabilities. For auto non-injury claims, the Company holds an average statistical liability for every reported claim. This statistical liability is based on an estimated average payment that varies by coverage, report year and state. These average estimated payments are updated monthly.

For all property and casualty coverages, many actuarial methods such as adjusted loss development (adjusted for settlement rates and average case liabilities) and loss ratio methods are employed to develop a best estimate of the IBNR for each coverage type. Similar actuarial methods are used to determine the best estimate of the expected salvage and subrogation; methods that look at recoveries by age and ratios of recoveries to paid loss are compared for each coverage. A liability for unpaid allocated claim adjustment expenses is held for the future claim adjustment costs associated with the payment of incurred but not yet paid claims. This liability is calculated as a percentage of the underlying unpaid claims liability. The percentage is based on historical ratios of essential claim department expenses compared with paid losses.

There were no significant changes in methodologies or assumptions during 2018. The assumptions used in calculating the unpaid claims and claim adjustment expenses for Property & Casualty - Auto Liability and Property & Casualty - Home are updated annually to reflect emerging trends in claim experience.

No additional premiums or return premiums have been accrued as a result of the prior year development.

Liabilities for unpaid claims and claim adjustment expenses were not discounted.

The cumulative number of reported claims for auto liability coverages are counted by individual coverages (i.e. bodily injury and property damage) and, if multiple occupants are injured, then each injury is counted as a separate claim. For home coverages, each exposure is counted separately, so a house fire would, for example, have separate claim counts for the building, the contents, and additional living expenses. Claim counts include claims that do not ultimately result in a liability. Any liability established upon receipt of these claims would subsequently be reversed.

4. Insurance (continued)

Asia

Group Disability & Group Life

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance									At December 31, 2018	
	For the Years Ended December 31,										
	(Unaudited)										
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)										
2010	$ 74	$ 70	$ 75	$ 96	$ 96	$ 93	$ 122	$ 130	$ 121	$ 9	2,781
2011		58	61	80	80	84	112	119	116	16	2,985
2012			88	94	92	106	107	110	120	18	4,434
2013				134	135	157	152	151	159	12	5,064
2014					267	251	230	231	242	38	5,890
2015						252	240	244	238	50	5,606
2016							211	214	202	63	3,499
2017								273	254	90	3,382
2018									333	178	2,122
Total									1,785		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance									(1,223)		
All outstanding liabilities for incurral years prior to 2010, net of reinsurance									16		
Total unpaid claims and claim adjustment expenses, net of reinsurance									$ 578		

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance								
	For the Years Ended December 31,								
	(Unaudited)								
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(In millions)								
2010	$ 18	$ 36	$ 48	$ 58	$ 71	$ 80	$ 102	$ 108	$ 113
2011		12	36	49	60	73	92	98	100
2012			27	58	77	89	96	101	102
2013				39	89	109	123	134	147
2014					62	130	162	182	204
2015						73	139	173	187
2016							59	122	139
2017								80	144
2018									87
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance									$ 1,223

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration as of December 31, 2018:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance								
Years	1	2	3	4	5	6	7	8	9
Group Disability & Group Life	23.9%	25.2%	12.2%	8.9%	8.9%	8.8%	8.3%	3.9%	3.8%

Significant Methodologies and Assumptions

This business line consists of employer sponsored and industry sponsored Group Life and Group Disability risks.

4. Insurance (continued)

For Group Life, the IBNR liability is determined by using the Bornhuetter-Ferguson Method, with factors derived by examining the experience of historical claims. A pending liability is also calculated for claims that have been reported but have not been paid. A claim eligibility ratio based on past experience is applied to the face amount of individual claims.

For Group Disability, the IBNR liability is calculated by applying a percentage to premiums in-force based on the expected delay as evidenced by the experience in the portfolio. This is then allocated back into different incurral years based on an assumed run-off. A claims in course of payment liability is also calculated for claims that have been admitted and are in the course of payment. The assumptions employed are based on economic conditions and industry experience, as adjusted for the Company's own experience.

An expense liability is held for the future expenses associated with the payment of incurred but not yet paid claims. This is expressed as a percentage of the underlying claims liability and is based on past experience and the future expense structure.

There were no significant changes in methodologies during 2018. The assumptions used in calculating the unpaid claims and claim adjustment expenses for Group Disability and Group Life are updated annually to reflect emerging trends in claim experience.

No additional premiums or return premiums have been accrued as a result of the prior year development.

The liabilities for unpaid claims and claim adjustment expenses were $733 million and $756 million at December 31, 2018 and 2017, respectively. These amounts were discounted using interest rates ranging from 3% to 7%, based on the incurral year. The total discount applied to these liabilities was $61 million and $57 million at December 31, 2018 and 2017, respectively. The amount of interest accretion recognized was $19 million, $26 million and $22 million for the years ended December 31, 2018, 2017 and 2016, respectively. These amounts were reflected in policyholder benefits and claims.

The Company tracks claim frequency by the number of reported claims as identified by a unique claim number assigned to individual claimants. Claim counts include claims that do not ultimately result in a liability. A liability is only established for those claims that are expected to result in a liability, based on historical factors.

Latin America

Protection Life

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance										At December 31, 2018	
	For the Years Ended December 31,											
	(Unaudited)											
Incurral Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2009	$ 229	$ 309	$ 314	$ 315	$ 315	$ 315	$ 315	$ 315	$ 317	$ 320	$ —	30,643
2010		251	323	330	331	331	331	331	332	334	—	32,102
2011			141	218	224	225	226	226	222	226	—	26,146
2012				150	204	209	210	211	209	211	—	26,105
2013					166	232	239	240	239	242	—	29,581
2014						242	366	377	346	350	—	38,071
2015							316	451	422	428	1	43,426
2016								340	437	448	3	37,555
2017									351	345	16	30,116
2018										328	119	21,926
Total										3,232		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(2,933)		
All outstanding liabilities for incurral years prior to 2009, net of reinsurance										9		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 308		

4. Insurance (continued)

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance									
	For the Years Ended December 31,									
	(Unaudited)									
Incurral Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(In millions)									
2009	$ 227	$ 302	$ 306	$ 307	$ 307	$ 307	$ 307	$ 307	$ 311	$ 312
2010		231	301	308	309	309	309	309	311	312
2011			139	213	220	220	221	221	222	222
2012				149	201	206	207	208	207	208
2013					162	225	230	230	230	232
2014						216	322	327	331	335
2015							259	363	386	394
2016								235	420	440
2017									206	312
2018										166
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 2,933

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration as of December 31, 2018:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance									
Years	1	2	3	4	5	6	7	8	9	10
Protection Life	62.4%	28.4%	2.7%	0.7%	0.2%	0.1%	0.2%	0.3%	0.7%	0.3%

Protection Health

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance										At December 31, 2018	
	For the Years Ended December 31,											
	(Unaudited)											
Incurral Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2009	$ 152	$ 170	$ 172	$ 172	$ 173	$ 173	$ 173	$ 173	$ 175	$ 175	$ —	92,576
2010		179	200	201	202	202	202	203	206	206	—	96,334
2011			215	239	240	241	242	242	239	239	—	106,023
2012				208	233	235	236	236	234	235	—	99,576
2013					225	254	255	256	253	253	—	103,132
2014						233	260	262	260	259	—	96,296
2015							201	228	229	228	1	84,767
2016								263	303	300	2	102,167
2017									381	355	4	113,183
2018										407	30	101,992
Total										2,657		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(2,588)		
All outstanding liabilities for incurral years prior to 2009, net of reinsurance										4		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 73		

4. Insurance (continued)

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance									
	For the Years Ended December 31,									
	(Unaudited)									
Incurral Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(In millions)									
2009	$ 152	$ 170	$ 172	$ 172	$ 173	$ 173	$ 173	$ 173	$ 175	$ 175
2010		179	200	201	202	202	202	203	205	206
2011			215	239	240	241	242	242	239	239
2012				208	233	235	236	236	235	235
2013					225	254	255	256	253	253
2014						231	258	260	256	256
2015							200	228	227	227
2016								247	296	298
2017									310	350
2018										349
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 2,588

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration as of December 31, 2018:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance									
Years	1	2	3	4	5	6	7	8	9	10
Protection Health	87.3%	11.3%	0.6%	—%	—%	—%	(0.3)%	0.5%	0.7%	0.1%

Significant Methodologies and Assumptions

The Latin America segment establishes liabilities for unpaid losses, which are equal to the accumulation of unpaid reported claims, plus an estimate for claims IBNR.

In general terms, for both the Protection Life and Protection Health products, the methodology for IBNR is a weighted loss ratio combined with the Bornhuetter-Ferguson Method. The factors are derived by examining the experience of historical claims. In the initial months, the credibility is higher on premiums and lower on claims. As the premiums are earned, the credibility grows for the factors. For one major medical Protection Health product, a different methodology is employed, which estimates the IBNR based on a percentage of policy cancellations and the accrued premium.

For Protection Health products, claim duration can be very long due to the multiple incidences over time that may occur for a single claim. The number of claims reported per year is based on the original claim occurrence date for each individual claim. Any subsequent claims that are considered part of the original claim occurrence are not counted as a new claim. For Protection Life products, claims are based upon individual death claims.

There were no significant changes in methodologies or assumptions during 2018. The assumptions used in calculating the unpaid claims and claim adjustment expenses for Protection Life and Protection Health are updated annually to reflect emerging trends in claim experience.

No additional premiums or return premiums have been accrued as a result of the prior year development.

Liabilities for unpaid claims and claim adjustment expenses were not discounted.

For Protection Life and Protection Health products, claim counts initially include claims that do not ultimately result in a liability. These claims are omitted from the claim counts once it is determined that there is no liability.

4. Insurance (continued)

Reconciliation of the Disclosure of Incurred and Paid Claims Development to the Liability for Unpaid Claims and Claim Adjustment Expenses

The reconciliation of the net incurred and paid claims development tables to the liability for unpaid claims and claims adjustment expenses on the consolidated balance sheet was as follows at:

	December 31, 2018	
	(In millions)	
Short-Duration:		
Unpaid claims and allocated claims adjustment expenses, net of reinsurance:		
U.S.:		
Group Life - Term	$ 2,012	
Group Long-Term Disability	7,112	
Property & Casualty - Auto	1,160	
Property & Casualty - Home	225	
Total		$ 10,509
Asia - Group Disability & Group Life		578
Latin America:		
Protection Life	308	
Protection Health	73	
Total		381
Other insurance lines - all segments combined		1,107
Total unpaid claims and allocated claims adjustment expenses, net of reinsurance		12,575
Reinsurance recoverables on unpaid claims:		
U.S.:		
Group Life - Term	20	
Group Long-Term Disability	109	
Property & Casualty - Auto	66	
Property & Casualty - Home	4	
Total		199
Asia - Group Disability & Group Life		216
Latin America:		
Protection Life	4	
Protection Health	6	
Total		10
Other insurance lines - all segments combined		353
Total reinsurance recoverable on unpaid claims		778
Total unpaid claims and allocated claims adjustment expense		13,353
Unallocated claims adjustment expenses		90
Discounting		(1,314)
Liability for unpaid claims and claim adjustment liabilities - short-duration		12,129
Liability for unpaid claims and claim adjustment liabilities - all long-duration lines		5,659
Total liability for unpaid claims and claim adjustment expense (included in future policy benefits and other policy-related balances)		$ 17,788

4. Insurance (continued)

Rollforward of Claims and Claim Adjustment Expenses

Information regarding the liabilities for unpaid claims and claim adjustment expenses was as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Balance at December 31 of prior period	$ 17,094	$ 16,157	$ 9,669
Less: Reinsurance recoverables	2,198	1,968	476
Net balance at December 31 of prior period	14,896	14,189	9,193
Cumulative adjustment (1)	—	—	4,819
Net balance at January 1,	14,896	14,189	14,012
Incurred related to:			
Current year	24,571	24,370	24,011
Prior years (2)	454	133	382
Total incurred	25,025	24,503	24,393
Paid related to:			
Current year	(18,757)	(18,525)	(18,696)
Prior years	(5,708)	(5,271)	(5,520)
Total paid	(24,465)	(23,796)	(24,216)
Net balance at December 31,	15,456	14,896	14,189
Add: Reinsurance recoverables	2,332	2,198	1,968
Balance at December 31,	$ 17,788	$ 17,094	$ 16,157

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(1) Reflects the accumulated adjustment, net of reinsurance, upon implementation of the short-duration contracts guidance which clarified the requirement to include claim information for long-duration contracts. The accumulated adjustment primarily reflects unpaid claim liabilities, net of reinsurance, for long-duration contracts as of the beginning of the period presented.

(2) During 2018 and 2017, claims and claim adjustment expenses associated with prior years increased due to events incurred in prior years but reported during current year. During 2016, claims and claim adjustment expenses associated with prior years increased due to the implementation of guidance related to short-duration contracts.

Separate Accounts

Separate account assets and liabilities include two categories of account types: pass-through separate accounts totaling $129.2 billion and $148.2 billion at December 31, 2018 and 2017, respectively, for which the policyholder assumes all investment risk, and separate accounts for which the Company contractually guarantees either a minimum return or account value to the policyholder which totaled $46.4 billion and $56.8 billion at December 31, 2018 and 2017, respectively. The latter category consisted primarily of guaranteed interest contracts ("GICs"). The average interest rate credited on these contracts was 2.60% and 2.34% at December 31, 2018 and 2017, respectively.

For the years ended December 31, 2018, 2017 and 2016, there were no investment gains (losses) on transfers of assets from the general account to the separate accounts.

5. Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles

See Note 1 for a description of capitalized acquisition costs.

Nonparticipating and Non-Dividend-Paying Traditional Contracts

The Company amortizes DAC and VOBA related to these contracts (term insurance, nonparticipating whole life insurance, traditional group life insurance, non-medical health insurance, and accident & health insurance) over the appropriate premium paying period in proportion to the actual and expected future gross premiums that were set at contract issue. The expected premiums are based upon the premium requirement of each policy and assumptions for mortality, morbidity, persistency and investment returns at policy issuance, or policy acquisition (as it relates to VOBA), include provisions for adverse deviation, and are consistent with the assumptions used to calculate future policyholder benefit liabilities. These assumptions are not revised after policy issuance or acquisition unless the DAC or VOBA balance is deemed to be unrecoverable from future expected profits. Absent a premium deficiency, variability in amortization after policy issuance or acquisition is caused only by variability in premium volumes.

Participating, Dividend-Paying Traditional Contracts

The Company amortizes DAC and VOBA related to these contracts over the estimated lives of the contracts in proportion to actual and expected future gross margins. The amortization includes interest based on rates in effect at inception or acquisition of the contracts. The future gross margins are dependent principally on investment returns, policyholder dividend scales, mortality, persistency, expenses to administer the business, creditworthiness of reinsurance counterparties and certain economic variables, such as inflation. For participating contracts within the closed block (dividend-paying traditional contracts) future gross margins are also dependent upon changes in the policyholder dividend obligation. See Note 7. Of these factors, the Company anticipates that investment returns, expenses, persistency and other factor changes, as well as policyholder dividend scales, are reasonably likely to impact significantly the rate of DAC and VOBA amortization. Each reporting period, the Company updates the estimated gross margins with the actual gross margins for that period. When the actual gross margins change from previously estimated gross margins, the cumulative DAC and VOBA amortization is re-estimated and adjusted by a cumulative charge or credit to current operations. When actual gross margins exceed those previously estimated, the DAC and VOBA amortization will increase, resulting in a current period charge to earnings. The opposite result occurs when the actual gross margins are below the previously estimated gross margins. Each reporting period, the Company also updates the actual amount of business in-force, which impacts expected future gross margins. When expected future gross margins are below those previously estimated, the DAC and VOBA amortization will increase, resulting in a current period charge to earnings. The opposite result occurs when the expected future gross margins are above the previously estimated expected future gross margins. Each period, the Company also reviews the estimated gross margins for each block of business to determine the recoverability of DAC and VOBA balances.

Fixed and Variable Universal Life Contracts and Fixed and Variable Deferred Annuity Contracts

The Company amortizes DAC and VOBA related to these contracts over the estimated lives of the contracts in proportion to actual and expected future gross profits. The amortization includes interest based on rates in effect at inception or acquisition of the contracts. The amount of future gross profits is dependent principally upon returns in excess of the amounts credited to policyholders, mortality, persistency, interest crediting rates, expenses to administer the business, creditworthiness of reinsurance counterparties, the effect of any hedges used and certain economic variables, such as inflation. Of these factors, the Company anticipates that investment returns, expenses and persistency are reasonably likely to significantly impact the rate of DAC and VOBA amortization. Each reporting period, the Company updates the estimated gross profits with the actual gross profits for that period. When the actual gross profits change from previously estimated gross profits, the cumulative DAC and VOBA amortization is re-estimated and adjusted by a cumulative charge or credit to current operations. When actual gross profits exceed those previously estimated, the DAC and VOBA amortization will increase, resulting in a current period charge to earnings. The opposite result occurs when the actual gross profits are below the previously estimated gross profits. Each reporting period, the Company also updates the actual amount of business remaining in-force, which impacts expected future gross profits. When expected future gross profits are below those previously estimated, the DAC and VOBA amortization will increase, resulting in a current period charge to earnings. The opposite result occurs when the expected future gross profits are above the previously estimated expected future gross profits. Each period, the Company also reviews the estimated gross profits for each block of business to determine the recoverability of DAC and VOBA balances.

Credit Insurance, Property and Casualty Insurance and Other Short-Duration Contracts

The Company amortizes DAC for these contracts, which is primarily composed of commissions and certain underwriting expenses, in proportion to actual and future earned premium over the applicable contract term.

5. Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles (continued)

Factors Impacting Amortization

Separate account rates of return on variable universal life contracts and variable deferred annuity contracts affect in-force account balances on such contracts each reporting period, which can result in significant fluctuations in amortization of DAC and VOBA. Returns that are higher than the Company's long-term expectation produce higher account balances, which increases the Company's future fee expectations and decreases future benefit payment expectations on minimum death and living benefit guarantees, resulting in higher expected future gross profits. The opposite result occurs when returns are lower than the Company's long-term expectation. The Company's practice to determine the impact of gross profits resulting from returns on separate accounts assumes that long-term appreciation in equity markets is not changed by short-term market fluctuations, but is only changed when sustained interim deviations are expected. The Company monitors these events and only changes the assumption when its long-term expectation changes.

The Company also periodically reviews other long-term assumptions underlying the projections of estimated gross margins and profits. These assumptions primarily relate to investment returns, policyholder dividend scales, interest crediting rates, mortality, persistency, policyholder behavior and expenses to administer business. Management annually updates assumptions used in the calculation of estimated gross margins and profits which may have significantly changed. If the update of assumptions causes expected future gross margins and profits to increase, DAC and VOBA amortization will decrease, resulting in a current period increase to earnings. The opposite result occurs when the assumption update causes expected future gross margins and profits to decrease.

Periodically, the Company modifies product benefits, features, rights or coverages that occur by the exchange of a contract for a new contract, or by amendment, endorsement, or rider to a contract, or by election or coverage within a contract. If such modification, referred to as an internal replacement, substantially changes the contract, the associated DAC or VOBA is written off immediately through income and any new deferrable costs associated with the replacement contract are deferred. If the modification does not substantially change the contract, the DAC or VOBA amortization on the original contract will continue and any acquisition costs associated with the related modification are expensed.

Amortization of DAC and VOBA is attributed to net investment gains (losses) and net derivative gains (losses), and to other expenses for the amount of gross margins or profits originating from transactions other than investment gains and losses. Unrealized investment gains and losses represent the amount of DAC and VOBA that would have been amortized if such gains and losses had been recognized.

5. Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles (continued)

Information regarding DAC and VOBA was as follows:

	Years Ended December 31,		
	2018	2017	2016
	(In millions)		
DAC:			
Balance at January 1,	$ 14,789	$ 13,830	$ 13,464
Capitalizations	3,254	3,002	3,152
Amortization related to:			
Net investment gains (losses) and net derivative gains (losses)	(109)	60	229
Other expenses	(2,599)	(2,426)	(2,555)
Total amortization	(2,708)	(2,366)	(2,326)
Unrealized investment gains (losses)	511	(525)	(171)
Effect of foreign currency translation and other	(276)	848	(289)
Balance at December 31,	15,570	14,789	13,830
VOBA:			
Balance at January 1,	3,630	3,760	3,966
Amortization related to:			
Net investment gains (losses) and net derivative gains (losses)	—	—	(3)
Other expenses	(267)	(315)	(389)
Total amortization	(267)	(315)	(392)
Unrealized investment gains (losses)	10	(4)	8
Effect of foreign currency translation and other	(48)	189	178
Balance at December 31,	3,325	3,630	3,760
Total DAC and VOBA:			
Balance at December 31,	$ 18,895	$ 18,419	$ 17,590

Information regarding total DAC and VOBA by segment, as well as Corporate & Other, was as follows at:

	December 31,	
	2018	2017
	(In millions)	
U.S.	$ 633	$ 614
Asia	10,156	9,261
Latin America	1,984	2,050
EMEA	1,622	1,673
MetLife Holdings	4,474	4,797
Corporate & Other	26	24
Total	$ 18,895	$ 18,419

5. Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles (continued)

Information regarding other intangibles was as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
DSI:			
Balance at January 1,	$ 220	$ 241	$ 242
Capitalization	7	16	22
Amortization	(33)	(29)	(23)
Unrealized investment gains (losses)	16	(6)	—
Effect of foreign currency translation	—	(2)	—
Balance at December 31,	$ 210	$ 220	$ 241
VODA and VOCRA:			
Balance at January 1,	$ 459	$ 509	$ 583
Amortization	(47)	(51)	(57)
Effect of foreign currency translation	(28)	1	(17)
Balance at December 31,	$ 384	$ 459	$ 509
Accumulated amortization	$ 392	$ 345	$ 294
Negative VOBA:			
Balance at January 1,	$ 827	$ 935	$ 1,193
Amortization	(56)	(140)	(269)
Effect of foreign currency translation and other	8	32	11
Balance at December 31,	$ 779	$ 827	$ 935
Accumulated amortization	$ 3,230	$ 3,174	$ 3,034

The estimated future amortization expense (credit) to be reported in other expenses for the next five years was as follows:

	VOBA	VODA and VOCRA	Negative VOBA
		(In millions)	
2019	$ 267	$ 42	$ (41)
2020	$ 247	$ 38	$ (41)
2021	$ 223	$ 35	$ (39)
2022	$ 209	$ 32	$ (37)
2023	$ 195	$ 29	$ (36)

6. Reinsurance

The Company enters into reinsurance agreements primarily as a purchaser of reinsurance for its various insurance products and also as a provider of reinsurance for some insurance products issued by third parties. The Company participates in reinsurance activities in order to limit losses, minimize exposure to significant risks and provide additional capacity for future growth.

Accounting for reinsurance requires extensive use of assumptions and estimates, particularly related to the future performance of the underlying business and the potential impact of counterparty credit risks. The Company periodically reviews actual and anticipated experience compared to the aforementioned assumptions used to establish assets and liabilities relating to ceded and assumed reinsurance and evaluates the financial strength of counterparties to its reinsurance agreements using criteria similar to that evaluated in the security impairment process discussed in Note 8.

6. Reinsurance (continued)

U.S.

For its Group Benefits business, the Company generally retains most of the risk and only cedes particular risk on certain client arrangements. The majority of the Company's reinsurance activity within this business relates to client agreements for employer sponsored captive programs, risk-sharing agreements and multinational pooling.

The Company, through its Property & Casualty business, purchases reinsurance to manage its exposure to large losses (primarily catastrophe losses) and to protect statutory surplus. The Company cedes losses and premiums based upon the exposure of the policies subject to reinsurance. To manage exposure to large property & casualty losses, the Company purchases property catastrophe, casualty and property per risk excess of loss reinsurance protection.

The Company's RIS business has periodically engaged in reinsurance activities on an opportunistic basis. There were no such transactions during the periods presented.

Asia, Latin America and EMEA

For certain of its life insurance products, the Company currently reinsures risks in excess of $5 million to external reinsurers on a yearly renewable term basis. For selected large corporate clients, the Company reinsures group employee benefits or credit insurance business with various client-affiliated reinsurance companies, covering policies issued to the employees or customers of the clients. Additionally, the Company cedes and assumes risk with other insurance companies when either company requires a business partner with the appropriate local licensing to issue certain types of policies in certain jurisdictions. In these cases, the assuming company typically underwrites the risks, develops the products and assumes most or all of the risk. The Company also has reinsurance agreements in-force that reinsure a portion of the living and death benefit guarantees issued in connection with variable annuity products. Under these agreements, the Company pays reinsurance fees associated with the guarantees collected from policyholders, and receives reimbursement for benefits paid or accrued in excess of account values, subject to certain limitations. The Company may also reinsure certain risks with external reinsurers depending upon the nature of the risk and local regulatory requirements.

MetLife Holdings

For its life products, the Company has historically reinsured the mortality risk primarily on an excess of retention basis or on a quota share basis. In addition to reinsuring mortality risk as described above, the Company reinsures other risks, as well as specific coverages. Placement of reinsurance is done primarily on an automatic basis and also on a facultative basis for risks with specified characteristics. The Company also assumes portions of the risk associated with certain whole life policies issued by a former affiliate and reinsures certain term life policies and universal life policies with secondary death benefit guarantees to such former affiliate.

For its other products, the Company has a reinsurance agreement in-force to reinsure the living and death benefit guarantees issued in connection with certain variable annuity guarantees from the Company's former operating joint venture in Japan. Under this agreement, the Company receives reinsurance fees associated with the guarantees collected from policyholders, and provides reimbursement for benefits paid or accrued in excess of account values, subject to certain limitations.

Catastrophe Coverage

The Company has exposure to catastrophes which could contribute to significant fluctuations in the Company's results of operations. For the U.S. and EMEA, the Company purchases catastrophe coverage to reinsure risks issued within territories that the Company believes are subject to the greatest catastrophic risks. For its other segments, the Company uses excess of retention and quota share reinsurance agreements to provide greater diversification of risk and minimize exposure to larger risks. Excess of retention reinsurance agreements provide for a portion of a risk to remain with the direct writing company and quota share reinsurance agreements provide for the direct writing company to transfer a fixed percentage of all risks of a class of policies.

6. Reinsurance (continued)

Reinsurance Recoverables

The Company reinsures its business through a diversified group of well-capitalized reinsurers. The Company analyzes recent trends in arbitration and litigation outcomes in disputes, if any, with its reinsurers. The Company monitors ratings and evaluates the financial strength of its reinsurers by analyzing their financial statements. In addition, the reinsurance recoverable balance due from each reinsurer is evaluated as part of the overall monitoring process. Recoverability of reinsurance recoverable balances is evaluated based on these analyses. The Company generally secures large reinsurance recoverable balances with various forms of collateral, including secured trusts, funds withheld accounts and irrevocable letters of credit. These reinsurance recoverable balances are stated net of allowances for uncollectible reinsurance, which at December 31, 2018 and 2017, were not significant.

The Company has secured certain reinsurance recoverable balances with various forms of collateral, including secured trusts, funds withheld accounts and irrevocable letters of credit. The Company had $3.4 billion and $3.5 billion of unsecured reinsurance recoverable balances at December 31, 2018 and 2017, respectively.

At December 31, 2018, the Company had $7.5 billion of net ceded reinsurance recoverables. Of this total, $4.5 billion, or 60%, were with the Company's five largest ceded reinsurers, including $1.1 billion of net ceded reinsurance recoverables which were unsecured. At December 31, 2017, the Company had $7.2 billion of net ceded reinsurance recoverables. Of this total, $4.4 billion, or 61%, were with the Company's five largest ceded reinsurers, including $1.5 billion of net ceded reinsurance recoverables which were unsecured.

The Company has reinsured with an unaffiliated third-party reinsurer, 59.25% of the closed block through a modified coinsurance agreement. The Company accounts for this agreement under the deposit method of accounting. The Company, having the right of offset, has offset the modified coinsurance deposit with the deposit recoverable.

6. Reinsurance (continued)

The amounts on the consolidated statements of operations include the impact of reinsurance. Information regarding the significant effects of reinsurance was as follows:

	Years Ended December 31,		
	2018	2017	2016
	(In millions)		
Premiums			
Direct premiums	$ 44,199	$ 39,595	$ 37,975
Reinsurance assumed	2,021	1,773	1,363
Reinsurance ceded	(2,380)	(2,376)	(2,136)
Net premiums	$ 43,840	$ 38,992	$ 37,202
Universal life and investment-type product policy fees			
Direct universal life and investment-type product policy fees	$ 6,008	$ 5,978	$ 5,884
Reinsurance assumed	86	83	96
Reinsurance ceded	(592)	(551)	(497)
Net universal life and investment-type product policy fees	$ 5,502	$ 5,510	$ 5,483
Policyholder benefits and claims			
Direct policyholder benefits and claims	$ 43,456	$ 39,354	$ 37,186
Reinsurance assumed	1,583	1,388	1,085
Reinsurance ceded	(2,383)	(2,429)	(1,913)
Net policyholder benefits and claims	$ 42,656	$ 38,313	$ 36,358
Other expenses			
Direct other expenses	$ 13,704	$ 13,610	$ 13,958
Reinsurance assumed	321	246	169
Reinsurance ceded	(311)	(235)	(378)
Net other expenses	$ 13,714	$ 13,621	$ 13,749

The amounts on the consolidated balance sheets include the impact of reinsurance. Information regarding the significant effects of reinsurance was as follows at:

	December 31,							
	2018				2017			
	Direct	Assumed	Ceded	Total Balance Sheet	Direct	Assumed	Ceded	Total Balance Sheet
	(In millions)							
Assets								
Premiums, reinsurance and other receivables	$ 5,988	$ 1,603	$ 12,053	$ 19,644	$ 6,300	$ 866	$ 11,257	$ 18,423
Deferred policy acquisition costs and value of business acquired	18,812	385	(302)	18,895	18,350	398	(329)	18,419
Total assets	$ 24,800	$ 1,988	$ 11,751	$ 38,539	$ 24,650	$ 1,264	$ 10,928	$ 36,842
Liabilities								
Future policy benefits	$ 183,367	$ 3,413	$ —	$ 186,780	$ 174,694	$ 3,280	$ —	$ 177,974
Policyholder account balances	183,207	488	(2)	183,693	182,226	293	(1)	182,518
Other policy-related balances	15,519	986	24	16,529	14,962	520	33	15,515
Other liabilities	14,848	2,131	5,985	22,964	17,077	1,896	5,009	23,982
Total liabilities	$ 396,941	$ 7,018	$ 6,007	$ 409,966	$ 388,959	$ 5,989	$ 5,041	$ 399,989

6. Reinsurance (continued)

Reinsurance agreements that do not expose the Company to a reasonable possibility of a significant loss from insurance risk are recorded using the deposit method of accounting. The deposit assets on reinsurance were $2.7 billion and $2.8 billion at December 31, 2018 and 2017, respectively. The deposit liabilities on reinsurance were $1.4 billion at both December 31, 2018 and 2017.

7. Closed Block

On April 7, 2000 (the "Demutualization Date"), Metropolitan Life Insurance Company ("MLIC") converted from a mutual life insurance company to a stock life insurance company and became a wholly-owned subsidiary of MetLife, Inc. The conversion was pursuant to an order by the New York Superintendent of Insurance approving MLIC's plan of reorganization, as amended (the "Plan of Reorganization"). On the Demutualization Date, MLIC established a closed block for the benefit of holders of certain individual life insurance policies of MLIC. Assets have been allocated to the closed block in an amount that has been determined to produce cash flows which, together with anticipated revenues from the policies included in the closed block, are reasonably expected to be sufficient to support obligations and liabilities relating to these policies, including, but not limited to, provisions for the payment of claims and certain expenses and taxes, and to provide for the continuation of policyholder dividend scales in effect for 1999, if the experience underlying such dividend scales continues, and for appropriate adjustments in such scales if the experience changes. At least annually, the Company compares actual and projected experience against the experience assumed in the then-current dividend scales. Dividend scales are adjusted periodically to give effect to changes in experience.

The closed block assets, the cash flows generated by the closed block assets and the anticipated revenues from the policies in the closed block will benefit only the holders of the policies in the closed block. To the extent that, over time, cash flows from the assets allocated to the closed block and claims and other experience related to the closed block are, in the aggregate, more or less favorable than what was assumed when the closed block was established, total dividends paid to closed block policyholders in the future may be greater than or less than the total dividends that would have been paid to these policyholders if the policyholder dividend scales in effect for 1999 had been continued. Any cash flows in excess of amounts assumed will be available for distribution over time to closed block policyholders and will not be available to stockholders. If the closed block has insufficient funds to make guaranteed policy benefit payments, such payments will be made from assets outside of the closed block. The closed block will continue in effect as long as any policy in the closed block remains in-force. The expected life of the closed block is over 100 years from the Demutualization Date.

The Company uses the same accounting principles to account for the participating policies included in the closed block as it used prior to the Demutualization Date. However, the Company establishes a policyholder dividend obligation for earnings that will be paid to policyholders as additional dividends as described below. The excess of closed block liabilities over closed block assets at the Demutualization Date (adjusted to eliminate the impact of related amounts in AOCI) represents the estimated maximum future earnings from the closed block expected to result from operations, attributed net of income tax, to the closed block. Earnings of the closed block are recognized in income over the period the policies and contracts in the closed block remain in-force. Management believes that over time the actual cumulative earnings of the closed block will approximately equal the expected cumulative earnings due to the effect of dividend changes. If, over the period the closed block remains in existence, the actual cumulative earnings of the closed block are greater than the expected cumulative earnings of the closed block, the Company will pay the excess to closed block policyholders as additional policyholder dividends unless offset by future unfavorable experience of the closed block and, accordingly, will recognize only the expected cumulative earnings in income with the excess recorded as a policyholder dividend obligation. If over such period, the actual cumulative earnings of the closed block are less than the expected cumulative earnings of the closed block, the Company will recognize only the actual earnings in income. However, the Company may change policyholder dividend scales in the future, which would be intended to increase future actual earnings until the actual cumulative earnings equal the expected cumulative earnings.

Experience within the closed block, in particular mortality and investment yields, as well as realized and unrealized gains and losses, directly impact the policyholder dividend obligation. Amortization of the closed block DAC, which resides outside of the closed block, is based upon cumulative actual and expected earnings within the closed block. Accordingly, the Company's net income continues to be sensitive to the actual performance of the closed block.

Closed block assets, liabilities, revenues and expenses are combined on a line-by-line basis with the assets, liabilities, revenues and expenses outside the closed block based on the nature of the particular item.

7. Closed Block (continued)

Information regarding the closed block liabilities and assets designated to the closed block was as follows at:

	December 31,	
	2018	2017
	(In millions)	
Closed Block Liabilities		
Future policy benefits	$ 40,032	$ 40,463
Other policy-related balances	317	222
Policyholder dividends payable	431	437
Policyholder dividend obligation	428	2,121
Deferred income tax liability	28	—
Other liabilities	328	212
Total closed block liabilities	41,564	43,455
Assets Designated to the Closed Block		
Investments:		
Fixed maturity securities available-for-sale, at estimated fair value	25,354	27,904
Equity securities, at estimated fair value	61	70
Contractholder-directed equity securities and fair value option securities, at estimated fair value	43	—
Mortgage loans	6,778	5,878
Policy loans	4,527	4,548
Real estate and real estate joint ventures	544	613
Other invested assets	643	731
Total investments	37,950	39,744
Accrued investment income	443	477
Premiums, reinsurance and other receivables; cash and cash equivalents	83	14
Current income tax recoverable	69	35
Deferred income tax asset	—	36
Total assets designated to the closed block	38,545	40,306
Excess of closed block liabilities over assets designated to the closed block	3,019	3,149
Amounts included in AOCI:		
Unrealized investment gains (losses), net of income tax	1,089	1,863
Unrealized gains (losses) on derivatives, net of income tax	86	(7)
Allocated to policyholder dividend obligation, net of income tax	(338)	(1,379)
Total amounts included in AOCI	837	477
Maximum future earnings to be recognized from closed block assets and liabilities	$ 3,856	$ 3,626

See Note 1 for discussion of new accounting guidance related to U.S. Tax Reform.

Information regarding the closed block policyholder dividend obligation was as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Balance at January 1,	$ 2,121	$ 1,931	$ 1,783
Change in unrealized investment and derivative gains (losses)	(1,693)	190	148
Balance at December 31,	$ 428	$ 2,121	$ 1,931

7. Closed Block (continued)

Information regarding the closed block revenues and expenses was as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Revenues			
Premiums	$ 1,672	$ 1,736	$ 1,804
Net investment income	1,758	1,818	1,902
Net investment gains (losses)	(71)	1	(10)
Net derivative gains (losses)	22	(32)	25
Total revenues	3,381	3,523	3,721
Expenses			
Policyholder benefits and claims	2,475	2,453	2,563
Policyholder dividends	968	976	953
Other expenses	117	125	133
Total expenses	3,560	3,554	3,649
Revenues, net of expenses before provision for income tax expense (benefit)	(179)	(31)	72
Provision for income tax expense (benefit)	(39)	12	24
Revenues, net of expenses and provision for income tax expense (benefit)	$ (140)	$ (43)	$ 48

MLIC charges the closed block with federal income taxes, state and local premium taxes and other state or local taxes, as well as investment management expenses relating to the closed block as provided in the Plan of Reorganization. MLIC also charges the closed block for expenses of maintaining the policies included in the closed block.

8. Investments

See Note 10 for information about the fair value hierarchy for investments and the related valuation methodologies.

Investment Risks and Uncertainties

Investments are exposed to the following primary sources of risk: credit, interest rate, liquidity, market valuation, currency and real estate risk. The financial statement risks, stemming from such investment risks, are those associated with the determination of estimated fair values, the diminished ability to sell certain investments in times of strained market conditions, the recognition of impairments, the recognition of income on certain investments and the potential consolidation of VIEs. The use of different methodologies, assumptions and inputs relating to these financial statement risks may have a material effect on the amounts presented within the consolidated financial statements.

The determination of valuation allowances and impairments is highly subjective and is based upon periodic evaluations and assessments of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available.

The recognition of income on certain investments (e.g. structured securities, including mortgage-backed securities, asset-backed securities (“ABS”), certain structured investment transactions and FVO Securities) is dependent upon certain factors such as prepayments and defaults, and changes in such factors could result in changes in amounts to be earned.

Fixed Maturity Securities AFS

Fixed Maturity Securities AFS by Sector

The following table presents the fixed maturity securities AFS by sector. Municipals includes taxable and tax-exempt revenue bonds, and to a much lesser extent, general obligations of states, municipalities and political subdivisions. Redeemable preferred stock is reported within U.S. corporate and foreign corporate fixed maturity securities AFS. Included within fixed maturity securities AFS are structured securities including RMBS, ABS and commercial mortgage-backed securities (“CMBS”) (collectively, “Structured Securities”).

8. Investments (continued)

	December 31, 2018					December 31, 2017				
		Gross Unrealized					Gross Unrealized			
	Amortized Cost	Gains	Temporary Losses	OTTI Losses (1)	Estimated Fair Value	Amortized Cost	Gains	Temporary Losses	OTTI Losses (1)	Estimated Fair Value
	(In millions)									
U.S. corporate	$ 77,761	$ 3,467	$ 2,280	$ —	$ 78,948	$ 76,005	$ 7,007	$ 351	$ —	$ 82,661
Foreign government	56,353	6,406	471	—	62,288	55,351	6,495	312	—	61,534
Foreign corporate	56,290	2,438	2,025	—	56,703	52,409	3,836	676	—	55,569
U.S. government and agency	37,030	2,756	464	—	39,322	43,446	4,227	279	—	47,394
RMBS	27,409	920	394	(26)	27,961	27,846	1,145	233	(42)	28,800
ABS	12,552	74	153	1	12,472	12,213	116	39	(1)	12,291
Municipals	10,376	1,228	71	—	11,533	10,752	1,717	13	1	12,455
CMBS	9,045	115	122	—	9,038	8,047	222	42	—	8,227
Total fixed maturity securities AFS	$ 286,816	$17,404	$ 5,980	$ (25)	$ 298,265	$ 286,069	$ 24,765	$ 1,945	$ (42)	$ 308,931

(1) Noncredit OTTI losses included in AOCI in an unrealized gain position are due to increases in estimated fair value subsequent to initial recognition of noncredit losses on such securities. See also "— Net Unrealized Investment Gains (Losses)."

The Company held non-income producing fixed maturity securities AFS with an estimated fair value of $15 million and $6 million with unrealized gains (losses) of ($1) million and ($4) million at December 31, 2018 and 2017, respectively.

Methodology for Amortization of Premium and Accretion of Discount on Structured Securities

Amortization of premium and accretion of discount on Structured Securities considers the estimated timing and amount of prepayments of the underlying loans. Actual prepayment experience is periodically reviewed and effective yields are recalculated when differences arise between the originally anticipated and the actual prepayments received and currently anticipated. Prepayment assumptions for Structured Securities are estimated using inputs obtained from third-party specialists and based on management's knowledge of the current market. For credit-sensitive and certain prepayment-sensitive Structured Securities, the effective yield is recalculated on a prospective basis. For all other Structured Securities, the effective yield is recalculated on a retrospective basis.

Maturities of Fixed Maturity Securities AFS

The amortized cost and estimated fair value of fixed maturity securities AFS, by contractual maturity date, were as follows at December 31, 2018:

	Due in One Year or Less	Due After One Year Through Five Years	Due After Five Years Through Ten Years	Due After Ten Years	Structured Securities	Total Fixed Maturity Securities AFS
	(In millions)					
Amortized cost	$ 12,704	$ 54,663	$ 59,986	$ 110,457	$ 49,006	$ 286,816
Estimated fair value	$ 12,734	$ 55,876	$ 61,116	$ 119,068	$ 49,471	$ 298,265

Actual maturities may differ from contractual maturities due to the exercise of call or prepayment options. Fixed maturity securities AFS not due at a single maturity date have been presented in the year of final contractual maturity. Structured Securities are shown separately, as they are not due at a single maturity.

8. Investments (continued)

Continuous Gross Unrealized Losses for Fixed Maturity Securities AFS by Sector

The following table presents the estimated fair value and gross unrealized losses of fixed maturity securities AFS in an unrealized loss position, aggregated by sector and by length of time that the securities have been in a continuous unrealized loss position at:

	December 31, 2018				December 31, 2017			
	Less than 12 Months		Equal to or Greater than 12 Months		Less than 12 Months		Equal to or Greater than 12 Months	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
	(Dollars in millions)							
U.S. corporate	$ 32,430	$ 1,663	$ 5,826	$ 617	$ 5,604	$ 92	$ 4,115	$ 259
Foreign government	4,392	243	2,902	228	4,234	83	3,251	229
Foreign corporate	19,564	1,230	5,765	795	4,422	99	6,802	577
U.S. government and agency	6,813	58	8,937	406	18,273	93	3,560	186
RMBS	6,506	120	6,423	248	6,359	50	4,159	141
ABS	8,230	138	392	16	1,695	7	729	31
Municipals	1,380	46	349	25	182	2	346	12
CMBS	3,893	67	707	55	1,174	9	413	33
Total fixed maturity securities AFS	$ 83,208	$ 3,565	$ 31,301	$ 2,390	$ 41,943	$ 435	$ 23,375	$ 1,468
Total number of securities in an unrealized loss position	6,913		2,335		2,598		1,955	

Evaluation of Fixed Maturity Securities AFS for OTTI and Evaluating Temporarily Impaired Fixed Maturity Securities AFS

Evaluation and Measurement Methodologies

Management considers a wide range of factors about the security issuer and uses its best judgment in evaluating the cause of the decline in the estimated fair value of the security and in assessing the prospects for near-term recovery. Inherent in management's evaluation of the security are assumptions and estimates about the operations of the issuer and its future earnings potential. Considerations used in the impairment evaluation process include, but are not limited to: (i) the length of time and the extent to which the estimated fair value has been below amortized cost; (ii) the potential for impairments when the issuer is experiencing significant financial difficulties; (iii) the potential for impairments in an entire industry sector or sub-sector; (iv) the potential for impairments in certain economically depressed geographic locations; (v) the potential for impairments where the issuer, series of issuers or industry has suffered a catastrophic loss or has exhausted natural resources; (vi) whether the Company has the intent to sell or will more likely than not be required to sell a particular security before the decline in estimated fair value below amortized cost recovers; (vii) with respect to Structured Securities, changes in forecasted cash flows after considering the quality of underlying collateral, expected prepayment speeds, current and forecasted loss severity, consideration of the payment terms of the underlying assets backing a particular security, and the payment priority within the tranche structure of the security; (viii) the potential for impairments due to weakening of foreign currencies on non-functional currency denominated securities that are near maturity; and (ix) other subjective factors, including concentrations and information obtained from regulators and rating agencies.

8. Investments (continued)

The methodology and significant inputs used to determine the amount of credit loss are as follows:

- The Company calculates the recovery value by performing a discounted cash flow analysis based on the present value of future cash flows. The discount rate is generally the effective interest rate of the security prior to impairment.
- When determining collectability and the period over which value is expected to recover, the Company applies considerations utilized in its overall impairment evaluation process which incorporates information regarding the specific security, fundamentals of the industry and geographic area in which the security issuer operates, and overall macroeconomic conditions. Projected future cash flows are estimated using assumptions derived from management's best estimates of likely scenario-based outcomes after giving consideration to a variety of variables that include, but are not limited to: payment terms of the security; the likelihood that the issuer can service the interest and principal payments; the quality and amount of any credit enhancements; the security's position within the capital structure of the issuer; possible corporate restructurings or asset sales by the issuer; and changes to the rating of the security or the issuer by rating agencies.
- Additional considerations are made when assessing the unique features that apply to certain Structured Securities including, but not limited to: the quality of underlying collateral, expected prepayment speeds, current and forecasted loss severity, consideration of the payment terms of the underlying loans or assets backing a particular security, and the payment priority within the tranche structure of the security.
- When determining the amount of the credit loss for the following types of securities: U.S. and foreign corporate, foreign government and municipals, the estimated fair value is considered the recovery value when available information does not indicate that another value is more appropriate. When information is identified that indicates a recovery value other than estimated fair value, management considers in the determination of recovery value the same considerations utilized in its overall impairment evaluation process as described above, as well as any private and public sector programs to restructure such securities.

With respect to securities that have attributes of debt and equity ("perpetual hybrid securities"), consideration is given in the OTTI analysis as to whether there has been any deterioration in the credit of the issuer and the likelihood of recovery in value of the securities that are in a severe and extended unrealized loss position. Consideration is also given as to whether any perpetual hybrid securities with an unrealized loss, regardless of credit rating, have deferred any dividend payments. When an OTTI loss has occurred, the OTTI loss is the entire difference between the perpetual hybrid security's cost and its estimated fair value with a corresponding charge to earnings.

The amortized cost of securities is adjusted for OTTI in the period in which the determination is made. The Company does not change the revised cost basis for subsequent recoveries in value.

In periods subsequent to the recognition of OTTI on a security, the Company accounts for the impaired security as if it had been purchased on the measurement date of the impairment. Accordingly, the discount (or reduced premium) based on the new cost basis is accreted over the remaining term of the security in a prospective manner based on the amount and timing of estimated future cash flows.

Current Period Evaluation

Based on the Company's current evaluation of its securities in an unrealized loss position in accordance with its impairment policy, and the Company's current intentions and assessments (as applicable to the type of security) about holding, selling and any requirements to sell these securities, the Company concluded that these securities were not other-than-temporarily impaired at December 31, 2018. Future OTTI will depend primarily on economic fundamentals, issuer performance (including changes in the present value of future cash flows expected to be collected), and changes in credit ratings, collateral valuation and foreign currency exchange rates. If economic fundamentals deteriorate or if there are adverse changes in the above factors, OTTI may be incurred in upcoming periods.

Gross unrealized losses on fixed maturity securities AFS increased $4.1 billion during the year ended December 31, 2018 to $6.0 billion. The increase in gross unrealized losses for the year ended December 31, 2018 was primarily attributable to increases in interest rates, widening credit spreads and, to a lesser extent, the impact of weakening of certain foreign currencies on non-functional currency denominated fixed maturity securities AFS.

At December 31, 2018, $155 million of the total $6.0 billion of gross unrealized losses were from 42 fixed maturity securities AFS with an unrealized loss position of 20% or more of amortized cost for six months or greater.

8. Investments (continued)

Investment Grade Fixed Maturity Securities AFS

Of the $155 million of gross unrealized losses on fixed maturity securities AFS with an unrealized loss of 20% or more of amortized cost for six months or greater, $91 million, or 59%, were related to gross unrealized losses on 20 investment grade fixed maturity securities AFS. Unrealized losses on investment grade fixed maturity securities AFS are principally related to widening credit spreads since purchase and, with respect to fixed-rate fixed maturity securities AFS, rising interest rates since purchase.

Below Investment Grade Fixed Maturity Securities AFS

Of the $155 million of gross unrealized losses on fixed maturity securities AFS with an unrealized loss of 20% or more of amortized cost for six months or greater, $64 million, or 41%, were related to gross unrealized losses on 22 below investment grade fixed maturity securities AFS. Unrealized losses on below investment grade fixed maturity securities AFS are principally related to U.S. and foreign corporate securities (primarily industrial and utility securities) and CMBS and are the result of significantly wider credit spreads resulting from higher risk premiums since purchase, largely due to economic and market uncertainty. Management evaluates U.S. and foreign corporate securities based on factors such as expected cash flows and the financial condition and near-term and long-term prospects of the issuers and evaluates CMBS based on actual and projected cash flows after considering the quality of underlying collateral, expected prepayment speeds, current and forecasted loss severity, the payment terms of the underlying assets backing a particular security and the payment priority within the tranche structure of the security.

Equity Securities

Equity securities are summarized as follows at:

	December 31, 2018		December 31, 2017	
	Estimated Fair Value	% of Total	Estimated Fair Value	% of Total
	(Dollars in millions)			
Common stock	$ 1,037	72.0%	$ 2,035	81.0%
Non-redeemable preferred stock	403	28.0	478	19.0
Total equity securities	$ 1,440	100.0%	$ 2,513	100.0%

In connection with the adoption of new guidance related to the recognition and measurement of financial instruments (see Note 1), effective January 1, 2018, the Company has reclassified its investment in common stock in FHLB from equity securities to other invested assets. These investments are carried at redemption value and are considered restricted investments until redeemed by the respective FHLBanks. The carrying value of these investments at December 31, 2017 was $792 million.

8. Investments (continued)

Mortgage Loans

Mortgage Loans by Portfolio Segment

Mortgage loans are summarized as follows at:

	December 31,			
	2018		2017	
	Carrying Value	% of Total	Carrying Value	% of Total
	(Dollars in millions)			
Mortgage loans:				
Commercial	$ 48,463	64.0%	$ 44,375	64.6%
Agricultural	14,905	19.7	13,014	18.9
Residential	12,427	16.4	11,136	16.2
Total recorded investment	75,795	100.1	68,525	99.7
Valuation allowances	(342)	(0.5)	(314)	(0.5)
Subtotal mortgage loans, net	75,453	99.6	68,211	99.2
Residential — FVO	299	0.4	520	0.8
Total mortgage loans, net	$ 75,752	100.0%	$ 68,731	100.0%

Information on commercial, agricultural and residential mortgage loans is presented in the tables below. Information on residential mortgage loans — FVO is presented in Note 10. The Company elects the FVO for certain residential mortgage loans that are managed on a total return basis.

The amount of net discounts, included within total recorded investment, is primarily attributable to residential mortgage loans, and at December 31, 2018 and 2017 was $944 million and $1.1 billion, respectively.

The carrying value of foreclosed mortgage loans included in real estate and real estate joint ventures was $45 million and $48 million at December 31, 2018 and 2017, respectively.

Purchases of mortgage loans, primarily residential, were $3.5 billion, $3.1 billion and $2.9 billion for the years ended December 31, 2018, 2017 and 2016, respectively.

8. Investments (continued)

Mortgage Loans, Valuation Allowance and Impaired Loans by Portfolio Segment

Mortgage loans by portfolio segment, by method of evaluation of credit loss, impaired mortgage loans including those modified in a troubled debt restructuring, and the related valuation allowances, were as follows at and for the years ended:

	Evaluated Individually for Credit Losses					Evaluated Collectively for Credit Losses		Impaired Loans	
	Impaired Loans with a Valuation Allowance			Impaired Loans without a Valuation Allowance					
	Unpaid Principal Balance	Recorded Investment	Valuation Allowances	Unpaid Principal Balance	Recorded Investment	Recorded Investment	Valuation Allowances	Carrying Value	Average Recorded Investment
	(In millions)								
December 31, 2018									
Commercial	$ —	$ —	$ —	$ —	$ —	$ 48,463	$ 238	$ —	$ —
Agricultural	31	31	3	169	169	14,705	43	197	123
Residential	—	—	—	431	386	12,041	58	386	358
Total	$ 31	$ 31	$ 3	$ 600	$ 555	$ 75,209	$ 339	$ 583	$ 481
December 31, 2017									
Commercial	$ —	$ —	$ —	$ —	$ —	$ 44,375	$ 214	$ —	$ 5
Agricultural	22	21	2	27	27	12,966	39	46	32
Residential	—	—	—	358	324	10,812	59	324	285
Total	$ 22	$ 21	$ 2	$ 385	$ 351	$ 68,153	$ 312	$ 370	$ 322

The average recorded investment for impaired commercial, agricultural and residential mortgage loans was $90 million, $49 million and $188 million, respectively, for the year ended December 31, 2016.

Valuation Allowance Rollforward by Portfolio Segment

The changes in the valuation allowance, by portfolio segment, were as follows:

	Commercial	Agricultural	Residential	Total
	(In millions)			
Balance at January 1, 2016	$ 188	$ 37	$ 56	$ 281
Provision (release) (1)	157	3	23	183
Charge-offs, net of recoveries (1)	(143)	(1)	(16)	(160)
Balance at December 31, 2016	202	39	63	304
Provision (release)	12	4	8	24
Charge-offs, net of recoveries	—	(2)	(12)	(14)
Balance at December 31, 2017	214	41	59	314
Provision (release)	24	5	7	36
Charge-offs, net of recoveries	—	—	(8)	(8)
Balance at December 31, 2018	$ 238	$ 46	$ 58	$ 342

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(1) In connection with an acquisition in 2010, certain impaired commercial mortgage loans were acquired and accordingly, were not originated by the Company. Such commercial mortgage loans have been accounted for as purchased credit impaired ("PCI") commercial mortgage loans. Decreases in cash flows expected to be collected on PCI commercial mortgage loans can result in provisions for losses on mortgage loans. For the year ended December 31, 2016, in connection with the maturity of an acquired PCI commercial mortgage loan, an increase to the commercial mortgage loan valuation allowance of $143 million was recorded and charged-off upon maturity. The Company has recovered a substantial portion of the loss on the loan incurred through an indemnification agreement entered into in connection with the acquisition in 2010.

8. Investments (continued)

Valuation Allowance Methodology

Mortgage loans are considered to be impaired when it is probable that, based upon current information and events, the Company will be unable to collect all amounts due under the loan agreement. Specific valuation allowances are established using the same methodology for all three portfolio segments as the excess carrying value of a loan over either (i) the present value of expected future cash flows discounted at the loan's original effective interest rate, (ii) the estimated fair value of the loan's underlying collateral if the loan is in the process of foreclosure or otherwise collateral dependent, or (iii) the loan's observable market price. A common evaluation framework is used for establishing non-specific valuation allowances for all loan portfolio segments; however, a separate non-specific valuation allowance is calculated and maintained for each loan portfolio segment that is based on inputs unique to each loan portfolio segment. Non-specific valuation allowances are established for pools of loans with similar risk characteristics where a property-specific or market-specific risk has not been identified, but for which the Company expects to incur a credit loss. These evaluations are based upon several loan portfolio segment-specific factors, including the Company's experience with loan losses, defaults and loss severity, and loss expectations for loans with similar risk characteristics. These evaluations are revised as conditions change and new information becomes available.

Commercial and Agricultural Mortgage Loan Portfolio Segments

The Company typically uses several years of historical experience in establishing non-specific valuation allowances which capture multiple economic cycles. For evaluations of commercial mortgage loans, in addition to historical experience, management considers factors that include the impact of a rapid change to the economy, which may not be reflected in the loan portfolio, and recent loss and recovery trend experience as compared to historical loss and recovery experience. For evaluations of agricultural mortgage loans, in addition to historical experience, management considers factors that include increased stress in certain sectors, which may be evidenced by higher delinquency rates, or a change in the number of higher risk loans. On a quarterly basis, management incorporates the impact of these current market events and conditions on historical experience in determining the non-specific valuation allowance established for commercial and agricultural mortgage loans.

All commercial mortgage loans are reviewed on an ongoing basis which may include an analysis of the property financial statements and rent roll, lease rollover analysis, property inspections, market analysis, estimated valuations of the underlying collateral, loan-to-value ratios, debt service coverage ratios, and tenant creditworthiness. The monitoring process focuses on higher risk loans, which include those that are classified as restructured, delinquent or in foreclosure, as well as loans with higher loan-to-value ratios and lower debt service coverage ratios. All agricultural mortgage loans are monitored on an ongoing basis. The monitoring process for agricultural mortgage loans is generally similar to the commercial mortgage loan monitoring process, with a focus on higher risk loans, including reviews on a geographic and property-type basis. Higher risk loans are reviewed individually on an ongoing basis for potential credit loss and specific valuation allowances are established using the methodology described above. Quarterly, the remaining loans are reviewed on a pool basis by aggregating groups of loans that have similar risk characteristics for potential credit loss, and non-specific valuation allowances are established as described above using inputs that are unique to each segment of the loan portfolio.

For commercial mortgage loans, the primary credit quality indicator is the debt service coverage ratio, which compares a property's net operating income to amounts needed to service the principal and interest due under the loan. Generally, the lower the debt service coverage ratio, the higher the risk of experiencing a credit loss. The Company also reviews the loan-to-value ratio of its commercial mortgage loan portfolio. Loan-to-value ratios compare the unpaid principal balance of the loan to the estimated fair value of the underlying collateral. Generally, the higher the loan-to-value ratio, the higher the risk of experiencing a credit loss. The debt service coverage ratio and the values utilized in calculating the ratio are updated annually on a rolling basis, with a portion of the portfolio updated each quarter. In addition, the loan-to-value ratio is routinely updated for all but the lowest risk loans as part of the Company's ongoing review of its commercial mortgage loan portfolio.

For agricultural mortgage loans, the Company's primary credit quality indicator is the loan-to-value ratio. The values utilized in calculating this ratio are developed in connection with the ongoing review of the agricultural mortgage loan portfolio and are routinely updated.

8. Investments (continued)

Residential Mortgage Loan Portfolio Segment

The Company's residential mortgage loan portfolio is comprised primarily of closed end, amortizing residential mortgage loans. For evaluations of residential mortgage loans, the key inputs of expected frequency and expected loss reflect current market conditions, with expected frequency adjusted, when appropriate, for differences from market conditions and the Company's historical experience. In contrast to the commercial and agricultural mortgage loan portfolios, residential mortgage loans are smaller-balance homogeneous loans that are collectively evaluated for impairment. Non-specific valuation allowances are established using the evaluation framework described above for pools of loans with similar risk characteristics from inputs that are unique to the residential segment of the loan portfolio. Loan specific valuation allowances are only established on residential mortgage loans when they have been restructured and are established using the methodology described above for all loan portfolio segments.

For residential mortgage loans, the Company's primary credit quality indicator is whether the loan is performing or nonperforming. The Company generally defines nonperforming residential mortgage loans as those that are 60 or more days past due and/or in nonaccrual status which is assessed monthly. Generally, nonperforming residential mortgage loans have a higher risk of experiencing a credit loss.

Credit Quality of Commercial Mortgage Loans

The credit quality of commercial mortgage loans was as follows at:

	Recorded Investment						
	Debt Service Coverage Ratios						
	> 1.20x	1.00x - 1.20x	< 1.00x	Total	% of Total	Estimated Fair Value	% of Total
				(Dollars in millions)			
December 31, 2018							
Loan-to-value ratios:							
Less than 65%	$ 40,360	$ 827	$ 101	$ 41,288	85.2%	$ 41,599	85.3%
65% to 75%	5,790	—	25	5,815	12.0	5,849	12.0
76% to 80%	423	209	56	688	1.4	664	1.4
Greater than 80%	496	176	—	672	1.4	635	1.3
Total	$ 47,069	$ 1,212	$ 182	$ 48,463	100.0%	$ 48,747	100.0%
December 31, 2017							
Loan-to-value ratios:							
Less than 65%	$ 37,073	$ 1,483	$ 201	$ 38,757	87.4%	$ 39,528	87.7%
65% to 75%	4,183	98	119	4,400	9.9	4,408	9.8
76% to 80%	235	210	57	502	1.1	476	1.0
Greater than 80%	401	168	147	716	1.6	672	1.5
Total	$ 41,892	$ 1,959	$ 524	$ 44,375	100.0%	$ 45,084	100.0%

8. Investments (continued)

Credit Quality of Agricultural Mortgage Loans

The credit quality of agricultural mortgage loans was as follows at:

	December 31,			
	2018		2017	
	Recorded Investment	% of Total	Recorded Investment	% of Total
	(Dollars in millions)			
Loan-to-value ratios:				
Less than 65%	$ 13,704	92.0%	$ 12,347	94.9%
65% to 75%	1,145	7.7	618	4.7
76% to 80%	33	0.2	40	0.3
Greater than 80%	23	0.1	9	0.1
Total	$ 14,905	100.0%	$ 13,014	100.0%

The estimated fair value of agricultural mortgage loans was $14.9 billion and $13.1 billion at December 31, 2018 and 2017, respectively.

Credit Quality of Residential Mortgage Loans

The credit quality of residential mortgage loans was as follows at:

	December 31,			
	2018		2017	
	Recorded Investment	% of Total	Recorded Investment	% of Total
	(Dollars in millions)			
Performance indicators:				
Performing	$ 11,956	96.2%	$ 10,622	95.4%
Nonperforming (1)	471	3.8	514	4.6
Total	$ 12,427	100.0%	$ 11,136	100.0%

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(1) Includes residential mortgage loans in process of foreclosure of $140 million and $133 million at December 31, 2018 and 2017, respectively.

The estimated fair value of residential mortgage loans was $12.7 billion and $11.6 billion at December 31, 2018 and 2017, respectively.

8. Investments (continued)

Past Due and Nonaccrual Mortgage Loans

The Company has a high quality, well performing mortgage loan portfolio, with 99% of all mortgage loans classified as performing at both December 31, 2018 and 2017. The Company defines delinquency consistent with industry practice, when mortgage loans are past due as follows: commercial and residential mortgage loans — 60 days and agricultural mortgage loans — 90 days. The past due and nonaccrual mortgage loans at recorded investment, prior to valuation allowances, by portfolio segment, were as follows at:

	Past Due		Greater than 90 Days Past Due and Still Accruing Interest		Nonaccrual	
	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017
	(In millions)					
Commercial	$ 9	$ —	$ 9	$ —	$ 176	$ —
Agricultural	204	134	109	125	105	36
Residential	471	514	35	33	436	481
Total	$ 684	$ 648	$ 153	$ 158	$ 717	$ 517

Mortgage Loans Modified in a Troubled Debt Restructuring

The Company may grant concessions related to borrowers experiencing financial difficulties, which are classified as troubled debt restructurings. Generally, the types of concessions include: reduction of the contractual interest rate, extension of the maturity date at an interest rate lower than current market interest rates, and/or a reduction of accrued interest. The amount, timing and extent of the concessions granted are considered in determining any impairment or changes in the specific valuation allowance recorded with the restructuring. Through the continuous monitoring process, a specific valuation allowance may have been recorded prior to the quarter when the mortgage loan is modified in a troubled debt restructuring.

For the year ended December 31, 2018, the Company had 440 residential mortgage loans modified in a troubled debt restructuring with carrying value of $96 million and $92 million pre-modification and post-modification, respectively. For the year ended December 31, 2017, the Company had 500 residential mortgage loans modified in a troubled debt restructuring with carrying value of $120 million and $108 million pre-modification and post-modification, respectively. For the years ended December 31, 2018 and 2017, the Company did not have a significant amount of agricultural mortgage loans and no commercial mortgage loans modified in a troubled debt restructuring.

For both the years ended December 31, 2018 and 2017, the Company did not have a significant amount of mortgage loans modified in a troubled debt restructuring with subsequent payment default.

Other Invested Assets

Other invested assets is comprised primarily of freestanding derivatives with positive estimated fair values (see Note 9), tax credit and renewable energy partnerships, annuities funding structured settlement claims, leveraged and direct financing leases and operating joint ventures.

Tax Credit Partnerships

The carrying value of tax credit partnerships was $1.7 billion and $1.8 billion at December 31, 2018 and 2017, respectively. Losses from tax credit partnerships included within net investment income were $257 million, $259 million, and $167 million for the years ended December 31, 2018, 2017 and 2016, respectively.

8. Investments (continued)

Leveraged and Direct Financing Leases

Investment in leveraged and direct financing leases consisted of the following at:

	December 31,			
	2018		2017	
	Leveraged Leases	Direct Financing Leases	Leveraged Leases	Direct Financing Leases
	(In millions)			
Rental receivables, net	$ 715	$ 1,855	$ 912	$ 2,303
Estimated residual values	807	42	838	42
Subtotal	1,522	1,897	1,750	2,345
Unearned income	(414)	(705)	(472)	(1,022)
Investment in leases	$ 1,108	$ 1,192	$ 1,278	$ 1,323

Rental receivables are generally due in periodic installments. The payment periods for leveraged leases generally range from one to 15 years but in certain circumstances can be over 25 years, while the payment periods for direct financing leases generally range from one to 25 years but in certain circumstances can be over 25 years. For rental receivables, the primary credit quality indicator is whether the rental receivable is performing or nonperforming, which is assessed monthly. The Company generally defines nonperforming rental receivables as those that are 90 days or more past due. At both December 31, 2018 and 2017, all leveraged lease receivables were performing and over 99% of direct financing rental receivables were performing.

The Company's deferred income tax liability related to leveraged leases was $519 million and $934 million at December 31, 2018 and 2017, respectively.

The components of income from investment in leveraged and direct financing leases, excluding net investment gains (losses), were as follows:

	Years Ended December 31,					
	2018		2017		2016	
	Leveraged Leases	Direct Financing Leases	Leveraged Leases	Direct Financing Leases	Leveraged Leases	Direct Financing Leases
	(In millions)					
Lease investment income	$ 47	$ 95	$ 19	$ 89	$ 51	$ 51
Less: Income tax expense	10	20	7	31	18	18
Lease investment income, net of income tax	$ 37	$ 75	$ 12	$ 58	$ 33	$ 33

Cash Equivalents

The carrying value of cash equivalents, which includes securities and other investments with an original or remaining maturity of three months or less at the time of purchase, was $9.0 billion and $6.2 billion at December 31, 2018 and 2017, respectively.

Net Unrealized Investment Gains (Losses)

Unrealized investment gains (losses) on fixed maturity securities AFS, equity securities and derivatives and the effect on DAC, VOBA, DSI, future policy benefits and the policyholder dividend obligation that would result from the realization of the unrealized gains (losses) are included in net unrealized investment gains (losses) in AOCI.

8. Investments (continued)

The components of net unrealized investment gains (losses) included in AOCI were as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Fixed maturity securities AFS	$ 11,356	$ 22,645	$ 20,330
Fixed maturity securities AFS with noncredit OTTI losses included in AOCI	25	41	8
Total fixed maturity securities AFS	11,381	22,686	20,338
Equity securities	—	421	485
Derivatives	2,127	1,453	2,923
Other	290	46	23
Subtotal	13,798	24,606	23,769
Amounts allocated from:			
Future policy benefits	31	(77)	(1,114)
DAC and VOBA related to noncredit OTTI losses recognized in AOCI	—	—	(3)
DAC, VOBA and DSI	(1,231)	(1,768)	(1,430)
Policyholder dividend obligation	(428)	(2,121)	(1,931)
Subtotal	(1,628)	(3,966)	(4,478)
Deferred income tax benefit (expense) related to noncredit OTTI losses recognized in AOCI	(3)	(12)	(1)
Deferred income tax benefit (expense)	(3,502)	(6,958)	(6,634)
Net unrealized investment gains (losses)	8,665	13,670	12,656
Net unrealized investment gains (losses) attributable to noncontrolling interests	(10)	(8)	(6)
Net unrealized investment gains (losses) attributable to MetLife, Inc.	$ 8,655	$ 13,662	$ 12,650

Net unrealized investment gains (losses) attributable to MetLife, Inc. in the above table include, on a net of income tax basis, $1,250 million for the year ended December 31, 2016, related to assets and liabilities of a disposed subsidiary.

8. Investments (continued)

The changes in net unrealized investment gains (losses) were as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Balance at January 1,	$ 13,662	$ 12,650	$ 11,769
Cumulative effects of changes in accounting principles, net of income tax (Note 1)	1,258	—	—
Fixed maturity securities AFS on which noncredit OTTI losses have been recognized	(16)	33	84
Unrealized investment gains (losses) during the year	(10,367)	804	2,544
Unrealized investment gains (losses) relating to:			
Future policy benefits	108	1,037	(951)
DAC and VOBA related to noncredit OTTI losses recognized in AOCI	—	3	(3)
DAC, VOBA and DSI	537	(338)	(157)
Policyholder dividend obligation	1,693	(190)	(148)
Deferred income tax benefit (expense) related to noncredit OTTI losses recognized in AOCI	9	(11)	(28)
Deferred income tax benefit (expense)	1,773	(324)	(485)
Net unrealized investment gains (losses)	8,657	13,664	12,625
Net unrealized investment gains (losses) attributable to noncontrolling interests	(2)	(2)	25
Balance at December 31,	$ 8,655	$ 13,662	$ 12,650
Change in net unrealized investment gains (losses)	$ (5,005)	$ 1,014	$ 856
Change in net unrealized investment gains (losses) attributable to noncontrolling interests	(2)	(2)	25
Change in net unrealized investment gains (losses) attributable to MetLife, Inc.	$ (5,007)	$ 1,012	$ 881

Net unrealized investment gains (losses) attributable to MetLife, Inc. in the above table include, on a net of income tax basis, ($304) million for the year ended December 31, 2016, related to assets and liabilities of a disposed subsidiary.

Concentrations of Credit Risk

Investments in any counterparty that were greater than 10% of the Company's equity, other than the U.S. government and its agencies, were in fixed income securities of the Japanese government and its agencies with an estimated fair value of $30.2 billion and $27.5 billion at December 31, 2018 and 2017, respectively, and in fixed income securities of the South Korean government and its agencies with an estimated fair value of $7.1 billion and $6.5 billion at December 31, 2018 and 2017, respectively.

Securities Lending and Repurchase Agreements

Securities, Collateral and Reinvestment Portfolio

A summary of the securities lending and repurchase agreements transactions is as follows:

	December 31,							
	2018				2017			
	Securities on Loan (1)				Securities on Loan (1)			
	Amortized Cost	Estimated Fair Value	Cash Collateral Received from Counterparties (2) (3)	Reinvestment Portfolio at Estimated Fair Value	Amortized Cost	Estimated Fair Value	Cash Collateral Received from Counterparties (2) (3)	Reinvestment Portfolio at Estimated Fair Value
				(In millions)				
Securities lending	$ 16,969	$ 17,724	$ 18,005	$ 18,074	$ 17,801	$ 19,028	$ 19,417	$ 19,508
Repurchase agreements	$ 1,033	$ 1,093	$ 1,067	$ 1,069	$ 994	$ 1,141	$ 1,102	$ 1,102

8. Investments (continued)

(1) Securities on loan in connection with securities lending are included within fixed maturities securities AFS and securities on loan in connection with repurchase agreements are included within fixed maturities securities AFS, cash equivalents and short-term investments.

(2) In connection with securities lending, in addition to cash collateral received, the Company received from counterparties security collateral of $78 million and $19 million at December 31, 2018 and 2017, respectively, which may not be sold or re-pledged, unless the counterparty is in default, and is not reflected on the consolidated financial statements.

(3) The securities lending liability for cash collateral is included within payables for collateral under securities loaned and other transactions, and the repurchase agreements liability for cash collateral is included within payables for collateral under securities loaned and other transactions and other liabilities.

Contractual Maturities

A summary of the remaining contractual maturities of securities lending agreements and repurchase agreements is as follow:

	December 31,							
	2018				2017			
	Remaining Maturities of the Agreements				Remaining Maturities of the Agreements			
	Open (1)	1 Month or Less	Over 1 to 6 Months	Total	Open (1)	1 Month or Less	Over 1 to 6 Months	Total
	(In millions)							
Cash collateral liability by loaned security type:								
Securities lending:								
U.S. government and agency	$ 2,736	$ 8,995	$ 5,220	$ 16,951	$ 3,753	$ 6,031	$ 8,607	$ 18,391
Foreign government	—	214	761	975	—	192	834	1,026
Agency RMBS	—	79	—	79	—	—	—	—
Total	$ 2,736	$ 9,288	$ 5,981	$ 18,005	$ 3,753	$ 6,223	$ 9,441	$ 19,417
Repurchase agreements:								
U.S. government and agency	$ —	$ 1,000	$ —	$ 1,000	$ —	$ 1,005	$ —	$ 1,005
All other corporate and government	—	—	67	67	—	44	53	97
Total	$ —	$ 1,000	$ 67	$ 1,067	$ —	$ 1,049	$ 53	$ 1,102

(1) The related loaned security could be returned to the Company on the next business day, which would require the Company to immediately return the cash collateral.

If the Company is required to return significant amounts of cash collateral on short notice and is forced to sell securities to meet the return obligation, it may have difficulty selling such collateral that is invested in securities in a timely manner, be forced to sell securities in a volatile or illiquid market for less than what otherwise would have been realized under normal market conditions, or both. The estimated fair value of the securities on loan related to the cash collateral on open at December 31, 2018 was $2.7 billion, all of which were U.S. government and agency securities which, if put back to the Company, could be immediately sold to satisfy the cash requirement.

The securities lending and repurchase agreements reinvestment portfolios acquired with the cash collateral consisted principally of high quality, liquid, publicly-traded fixed maturity securities AFS, short-term investments, cash equivalents or held in cash. If the securities on loan or the reinvestment portfolio become less liquid, the Company has the liquidity resources of most of its general account available to meet any potential cash demands when securities on loan are put back to the Company.

8. Investments (continued)

FHLB of Boston Advance Agreements

At December 31, 2018 and 2017, a subsidiary of the Company had pledged municipals with an estimated fair value of $1.2 billion and $564 million, respectively, as collateral and received $800 million and $300 million, respectively, in cash advances under short-term advance agreements with the FHLB of Boston. The liability to return the cash advances is included within payables for collateral under securities loaned and other transactions. The estimated fair value of the reinvestment portfolio acquired with the cash advances was $799 million and $300 million at December 31, 2018 and 2017, respectively, and consisted primarily of U.S. government and agency securities and Structured Securities. At December 31, 2018 and 2017, the reinvestment portfolio also included a $33 million and $12 million, at redemption value, required investment in FHLB of Boston common stock. The subsidiary is permitted to withdraw any portion of the pledged collateral over the minimum collateral requirement at any time, other than in the event of a default by the subsidiary.

The cash advance liability by loaned security type and remaining contractual maturities of the agreements was as follows at:

	December 31, 2018				December 31, 2017			
	Remaining Maturities of the Agreements				Remaining Maturities of the Agreements			
	1 Month or Less	Over 1 to 6 Months	6 Months to 1 Year	Total	1 Month or Less	Over 1 to 6 Months	6 Months to 1 Year	Total
	(In millions)							
Cash advance liability by loaned security type:								
Municipals	$ 150	$ 650	$ —	$800	$ —	$ 300	$ —	$ 300

Invested Assets on Deposit, Held in Trust and Pledged as Collateral

Invested assets on deposit, held in trust and pledged as collateral are presented below at estimated fair value for all asset classes, except mortgage loans, which are presented at carrying value at:

	December 31,	
	2018	2017
	(In millions)	
Invested assets on deposit (regulatory deposits)	$ 1,788	$ 1,879
Invested assets held in trust (collateral financing arrangement and reinsurance agreements)	2,971	2,490
Invested assets pledged as collateral (1)	24,168	24,174
Total invested assets on deposit, held in trust and pledged as collateral	$ 28,927	$ 28,543

(1) The Company has pledged invested assets in connection with various agreements and transactions, including funding agreements (see Note 4), derivative transactions (see Note 9), secured debt (see Note 12), and a collateral financing arrangement (see Note 13).

See "— Securities Lending and Repurchase Agreements" for information regarding securities supporting securities lending and repurchase agreement transactions and Note 7 for information regarding investments designated to the closed block. In addition, the restricted investment in FHLB common stock was $793 million and $792 million, at redemption value, at December 31, 2018 and 2017, respectively (see Note 1).

8. Investments (continued)

Purchased Credit Impaired Investments

Investments acquired with evidence of credit quality deterioration since origination and for which it is probable at the acquisition date that the Company will be unable to collect all contractually required payments are classified as PCI investments. For each investment, the excess of the cash flows expected to be collected as of the acquisition date over its acquisition date fair value is referred to as the accretable yield and is recognized as net investment income on an effective yield basis. If, subsequently, based on current information and events, it is probable that there is a significant increase in cash flows previously expected to be collected or if actual cash flows are significantly greater than cash flows previously expected to be collected, the accretable yield is adjusted prospectively. The excess of the contractually required payments (including interest) as of the acquisition date over the cash flows expected to be collected as of the acquisition date is referred to as the nonaccretable difference, and this amount is not expected to be realized as net investment income. Decreases in cash flows expected to be collected can result in OTTI.

The Company's PCI investments had an outstanding principal balance of $4.0 billion and $4.8 billion at December 31, 2018 and 2017, respectively, which represents the contractually required principal and accrued interest payments whether or not currently due and a carrying value (estimated fair value of the investments plus accrued interest) of $3.3 billion and $4.0 billion at December 31, 2018 and 2017, respectively. Accretion of accretable yield on PCI investments recognized in earnings in net investment income was $275 million and $281 million for the years ended December 31, 2018 and 2017, respectively. Purchases of PCI investments were insignificant in both of the years ended December 31, 2018 and 2017.

Collectively Significant Equity Method Investments

The Company holds investments in real estate joint ventures, real estate funds and other limited partnership interests consisting of leveraged buy-out funds, hedge funds, private equity funds, joint ventures and other funds. The portion of these investments accounted for under the equity method had a carrying value of $14.7 billion at December 31, 2018. The Company's maximum exposure to loss related to these equity method investments is limited to the carrying value of these investments plus unfunded commitments of $5.3 billion at December 31, 2018. Except for certain real estate joint ventures and certain funds, the Company's investments in its remaining real estate funds and other limited partnership interests are generally of a passive nature in that the Company does not participate in the management of the entities.

As described in Note 1, the Company generally records its share of earnings in its equity method investments using a three-month lag methodology and within net investment income. Aggregate net investment income from these equity method investments exceeded 10% of the Company's consolidated pre-tax income (loss) from continuing operations for two of the three most recent annual periods: 2017 and 2016. The Company is providing the following aggregated summarized financial data for such equity method investments, for the most recent annual periods, in order to provide comparative information. This aggregated summarized financial data does not represent the Company's proportionate share of the assets, liabilities, or earnings of such entities.

The aggregated summarized financial data presented below reflects the latest available financial information and is as of, and for, the years ended December 31, 2018, 2017 and 2016. Aggregate total assets of these entities totaled $529.1 billion and $505.6 billion at December 31, 2018 and 2017, respectively. Aggregate total liabilities of these entities totaled $65.5 billion and $68.9 billion at December 31, 2018 and 2017, respectively. Aggregate net income (loss) of these entities totaled $52.5 billion, $37.9 billion and $26.8 billion for the years ended December 31, 2018, 2017 and 2016, respectively, with $270 million related to Brighthouse for the year ended December 31, 2016. Aggregate net income (loss) from the underlying entities in which the Company invests is primarily comprised of investment income, including recurring investment income and realized and unrealized investment gains (losses).

Variable Interest Entities

The Company has invested in legal entities that are VIEs. In certain instances, the Company holds both the power to direct the most significant activities of the entity, as well as an economic interest in the entity and, as such, is deemed to be the primary beneficiary or consolidator of the entity. The determination of the VIE's primary beneficiary requires an evaluation of the contractual and implied rights and obligations associated with each party's relationship with or involvement in the entity, an estimate of the entity's expected losses and expected residual returns and the allocation of such estimates to each party involved in the entity.

8. Investments (continued)

Consolidated VIEs

Creditors or beneficial interest holders of VIEs where the Company is the primary beneficiary have no recourse to the general credit of the Company, as the Company's obligation to the VIEs is limited to the amount of its committed investment.

The following table presents the total assets and total liabilities relating to investment related VIEs for which the Company has concluded that it is the primary beneficiary and which are consolidated at:

	December 31,			
	2018		2017	
	Total Assets	Total Liabilities	Total Assets	Total Liabilities
	(In millions)			
Renewable energy partnership (1)	$ 102	$ —	$ 116	$ 3
Investment funds (2)	79	1	—	—
Other investments (1)	21	5	32	6
Total	$ 202	$ 6	$ 148	$ 9

(1) Assets of the renewable energy partnership and other investments primarily consisted of other invested assets.

(2) Assets of the investment funds primarily consisted of cash and cash equivalents.

Unconsolidated VIEs

The carrying amount and maximum exposure to loss relating to VIEs in which the Company holds a significant variable interest but is not the primary beneficiary and which have not been consolidated were as follows at:

	December 31,			
	2018		2017	
	Carrying Amount	Maximum Exposure to Loss (1)	Carrying Amount	Maximum Exposure to Loss (1)
	(In millions)			
Fixed maturity securities AFS:				
Structured Securities (2)	$ 47,874	$ 47,874	$ 47,614	$ 47,614
U.S. and foreign corporate	932	932	1,560	1,560
Other limited partnership interests	5,641	9,888	4,834	8,543
Other invested assets	1,906	2,063	2,291	2,625
Other investments	296	300	82	87
Total	$ 56,649	$ 61,057	$ 56,381	$ 60,429

(1) The maximum exposure to loss relating to fixed maturity securities AFS is equal to their carrying amounts or the carrying amounts of retained interests. The maximum exposure to loss relating to other limited partnership interests is equal to the carrying amounts plus any unfunded commitments. For certain of its investments in other invested assets, the Company's return is in the form of income tax credits which are guaranteed by creditworthy third parties. For such investments, the maximum exposure to loss is equal to the carrying amounts plus any unfunded commitments, reduced by income tax credits guaranteed by third parties of $94 million and $117 million at December 31, 2018 and 2017, respectively. Such a maximum loss would be expected to occur only upon bankruptcy of the issuer or investee.

(2) For these variable interests, the Company's involvement is limited to that of a passive investor in mortgage-backed or asset-backed securities issued by trusts that do not have substantial equity.

8. Investments (continued)

As described in Note 20, the Company makes commitments to fund partnership investments in the normal course of business. Excluding these commitments, the Company did not provide financial or other support to investees designated as VIEs during each of the years ended December 31, 2018, 2017 and 2016.

During 2018 and 2017, the Company securitized certain residential mortgage loans and acquired an interest in the related RMBS issued. While the Company has a variable interest in the issuer of the securities, it is not the primary beneficiary of the issuer of the securities since it does not have any rights to remove the servicer or veto rights over the servicer's actions. The carrying value and the estimated fair value of mortgage loans were $451 million and $478 million, respectively, for loans sold during 2018, and $319 million and $339 million, respectively, for loans sold during 2017. Gains on securitizations of $27 million and $20 million during the years ended December 31, 2018 and 2017, respectively, were included within net investment gains (losses). The estimated fair value of RMBS acquired in connection with the securitizations was $98 million and $52 million at December 31, 2018 and 2017, respectively, which was included in the carrying amount and maximum exposure to loss for Structured Securities presented above. See Note 10 for information on how the estimated fair value of mortgage loans and RMBS is determined, the valuation approaches and key inputs, their placement in the fair value hierarchy, and for certain RMBS, quantitative information about the significant unobservable inputs and the sensitivity of their estimated fair value to changes in those inputs.

Net Investment Income

The components of net investment income were as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Investment income:			
Fixed maturity securities AFS	$ 11,946	$ 11,497	$ 11,721
Equity securities	64	129	121
FVO Securities (1)	51	68	37
Mortgage loans	3,340	3,082	2,858
Policy loans	506	517	511
Real estate and real estate joint ventures	694	646	652
Other limited partnership interests	731	798	478
Cash, cash equivalents and short-term investments	387	228	153
Operating joint ventures	51	28	33
Other	364	192	248
Subtotal	18,134	17,185	16,812
Less: Investment expenses	1,285	1,122	972
Subtotal, net	16,849	16,063	15,840
Unit-linked investments (1)	(683)	1,300	950
Net investment income	$ 16,166	$ 17,363	$ 16,790

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(1) Changes in estimated fair value subsequent to purchase for investments still held as of the end of the respective periods included in net investment income were principally from Unit-linked investments, and were ($771) million, $662 million and $427 million for the years ended December 31, 2018, 2017, and 2016, respectively.

The Company invests in real estate joint ventures, other limited partnership interests and tax credit and renewable energy partnerships, and also does business through certain operating joint ventures, the majority of which are accounted for under the equity method. Net investment income from other limited partnership interests and operating joint ventures, accounted for under the equity method; and real estate joint ventures and tax credit and renewable energy partnerships, primarily accounted for under the equity method, totaled $592 million, $495 million and $337 million for the years ended December 31, 2018, 2017 and 2016, respectively.

8. Investments (continued)

Net Investment Gains (Losses)

Components of Net Investment Gains (Losses)

The components of net investment gains (losses) were as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Total gains (losses) on fixed maturity securities AFS:			
Total OTTI losses recognized — by sector and industry:			
U.S. and foreign corporate securities — by industry:			
Consumer	$ (20)	$ (4)	$ —
Finance	(9)	—	—
Industrial	(2)	—	(63)
Utility	—	—	(21)
Communications	—	—	(3)
Total U.S. and foreign corporate securities	(31)	(4)	(87)
Foreign government	(9)	—	—
ABS	—	(3)	(2)
RMBS	—	—	(18)
Municipals	—	(3)	—
OTTI losses on fixed maturity securities AFS recognized in earnings	(40)	(10)	(107)
Fixed maturity securities AFS — net gains (losses) on sales and disposals (1)	45	328	251
Total gains (losses) on fixed maturity securities AFS	5	318	144
Total gains (losses) on equity securities:			
Total OTTI losses recognized — by security type:			
Common stock	—	(24)	(75)
Non-redeemable preferred stock	—	(1)	—
OTTI losses on equity securities recognized in earnings	—	(25)	(75)
Equity securities — net gains (losses) on sales and disposals	118	117	19
Change in estimated fair value of equity securities (2)	(193)	—	—
Total gains (losses) on equity securities	(75)	92	(56)
Mortgage loans (1)	(56)	14	(231)
Real estate and real estate joint ventures	326	603	182
Other limited partnership interests	9	(59)	(64)
Other	(169)	(113)	(130)
Subtotal	40	855	(155)
Change in estimated fair value of other limited partnership interests and real estate joint ventures	12	—	—
Non-investment portfolio gains (losses) (3), (4), (5)	(350)	(1,162)	471
Other	—	(1)	1
Subtotal	(338)	(1,163)	472
Total net investment gains (losses)	$ (298)	$ (308)	$ 317

(1) Fixed maturity securities AFS — net gains (losses) on sales and disposals and mortgage loans for the year ended December 31, 2017, included $276 million and $47 million, respectively, in previously deferred gains on prior period transfers of such investments to Brighthouse. Such gains are no longer eliminated in consolidation after the Separation. See Note 3.

8. Investments (continued)

(2) Changes in estimated fair value subsequent to purchase for equity securities still held as of the end of the period included in net investment gains (losses) were ($81) million for the year ended December 31, 2018. See Note 1.

(3) Non-investment portfolio gains (losses) for the year ended December 31, 2018 includes a loss of $327 million which represents both the change in estimated fair value of FVO Brighthouse Common Stock held by the Company through the date of disposal and the loss on disposal in June 2018. Non-investment portfolio gains (losses) for the year ended December 31, 2017 included (i) a loss of $1,016 million which represents a mark-to-market loss on the Company's retained investment in Brighthouse Financial, Inc. at Separation and (ii) a loss of $95 million which represents the change in estimated fair value of FVO Brighthouse Common Stock held by the Company from the date of Separation to December 31, 2017. See Note 3.

(4) Non-investment portfolio gains (losses) for the year ended December 31, 2017 includes a $98 million loss due to the disposition of MetLife Afore. See Note 3.

(5) Non-investment portfolio gains (losses) for the year ended December 31, 2016 includes a gain of $102 million in connection with the U.S. Retail Advisor Force Divestiture. See Note 3.

Gains (losses) from foreign currency transactions included within net investment gains (losses) were ($16) million, ($6) million and $225 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Sales or Disposals and Impairments of Fixed Maturity Securities AFS

Sales of securities are determined on a specific identification basis. Proceeds from sales or disposals and the components of net investment gains (losses) were as shown in the table below:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Proceeds	$ 85,058	$ 56,509	$ 86,179
Gross investment gains	$ 856	$ 753	$ 1,048
Gross investment losses	(811)	(425)	(797)
OTTI losses	(40)	(10)	(107)
Net investment gains (losses)	$ 5	$ 318	$ 144

Credit Loss Rollforward

The table below presents a rollforward of the cumulative credit loss component of OTTI loss recognized in earnings on fixed maturity securities AFS still held for which a portion of the OTTI loss was recognized in OCI:

	Years Ended December 31,	
	2018	2017
	(In millions)	
Balance at January 1,	$ 138	$ 187
Sales (maturities, pay downs or prepayments) of securities previously impaired as credit loss OTTI	(47)	(48)
Increase in cash flows — accretion of previous credit loss OTTI	(2)	(1)
Balance at December 31,	$ 89	$ 138

9. Derivatives

Accounting for Derivatives

See Note 1 for a description of the Company's accounting policies for derivatives and Note 10 for information about the fair value hierarchy for derivatives.

Derivative Strategies

The Company is exposed to various risks relating to its ongoing business operations, including interest rate, foreign currency exchange rate, credit and equity market. The Company uses a variety of strategies to manage these risks, including the use of derivatives.

Derivatives are financial instruments with values derived from interest rates, foreign currency exchange rates, credit spreads and/or other financial indices. Derivatives may be exchange-traded or contracted in the over-the-counter ("OTC") market. Certain of the Company's OTC derivatives are cleared and settled through central clearing counterparties ("OTC-cleared"), while others are bilateral contracts between two counterparties ("OTC-bilateral"). The types of derivatives the Company uses include swaps, forwards, futures and option contracts. To a lesser extent, the Company uses credit default swaps and structured interest rate swaps to synthetically replicate investment risks and returns which are not readily available in the cash markets.

Interest Rate Derivatives

The Company uses a variety of interest rate derivatives to reduce its exposure to changes in interest rates, including interest rate swaps, interest rate total return swaps, caps, floors, swaptions, futures and forwards.

Interest rate swaps are used by the Company primarily to reduce market risks from changes in interest rates and to alter interest rate exposure arising from mismatches between assets and liabilities (duration mismatches). In an interest rate swap, the Company agrees with another party to exchange, at specified intervals, the difference between fixed rate and floating rate interest amounts as calculated by reference to an agreed notional amount. The Company utilizes interest rate swaps in fair value, cash flow and nonqualifying hedging relationships.

The Company uses structured interest rate swaps to synthetically create investments that are either more expensive to acquire or otherwise unavailable in the cash markets. These transactions are a combination of a derivative and a cash instrument such as a U.S. government and agency, or other fixed maturity securities AFS. Structured interest rate swaps are included in interest rate swaps and are not designated as hedging instruments.

Interest rate total return swaps are swaps whereby the Company agrees with another party to exchange, at specified intervals, the difference between the economic risk and reward of an asset or a market index and a benchmark interest rate, calculated by reference to an agreed notional amount. No cash is exchanged at the outset of the contract. Cash is paid and received over the life of the contract based on the terms of the swap. These transactions are entered into pursuant to master agreements that provide for a single net payment to be made by the counterparty at each due date. Interest rate total return swaps are used by the Company to reduce market risks from changes in interest rates and to alter interest rate exposure arising from mismatches between assets and liabilities (duration mismatches). The Company utilizes interest rate total return swaps in nonqualifying hedging relationships.

The Company purchases interest rate caps primarily to protect its floating rate liabilities against rises in interest rates above a specified level and against interest rate exposure arising from mismatches between assets and liabilities and interest rate floors primarily to protect its minimum rate guarantee liabilities against declines in interest rates below a specified level. In certain instances, the Company locks in the economic impact of existing purchased caps and floors by entering into offsetting written caps and floors. The Company utilizes interest rate caps and floors in nonqualifying hedging relationships.

In exchange-traded interest rate (Treasury and swap) futures transactions, the Company agrees to purchase or sell a specified number of contracts, the value of which is determined by the different classes of interest rate securities to post variation margin on a daily basis in an amount equal to the difference in the daily market values of those contracts and to pledge initial margin based on futures exchange requirements. The Company enters into exchange-traded futures with regulated futures commission merchants that are members of the exchange. Exchange-traded interest rate (Treasury and swap) futures are used primarily to hedge mismatches between the duration of assets in a portfolio and the duration of liabilities supported by those assets, to hedge against changes in value of securities the Company owns or anticipates acquiring, to hedge against changes in interest rates on anticipated liability issuances by replicating Treasury or swap curve performance, and to hedge minimum guarantees embedded in certain variable annuity products offered by the Company. The Company utilizes exchange-traded interest rate futures in nonqualifying hedging relationships.

9. Derivatives (continued)

Swaptions are used by the Company to hedge interest rate risk associated with the Company's long-term liabilities and invested assets. A swaption is an option to enter into a swap with a forward starting effective date. In certain instances, the Company locks in the economic impact of existing purchased swaptions by entering into offsetting written swaptions. The Company pays a premium for purchased swaptions and receives a premium for written swaptions. The Company utilizes swaptions in nonqualifying hedging relationships. Swaptions are included in interest rate options.

The Company enters into interest rate forwards to buy and sell securities. The price is agreed upon at the time of the contract and payment for such a contract is made at a specified future date. The Company utilizes interest rate forwards in cash flow and nonqualifying hedging relationships.

A synthetic GIC is a contract that simulates the performance of a traditional GIC through the use of financial instruments. Under a synthetic GIC, the contractholder owns the underlying assets. The Company guarantees a rate of return on those assets for a premium. Synthetic GICs are not designated as hedging instruments.

Foreign Currency Exchange Rate Derivatives

The Company uses foreign currency exchange rate derivatives, including foreign currency swaps, foreign currency forwards, currency options and exchange-traded currency futures, to reduce the risk from fluctuations in foreign currency exchange rates associated with its assets and liabilities denominated in foreign currencies. The Company also uses foreign currency derivatives to hedge the foreign currency exchange rate risk associated with certain of its net investments in foreign operations.

In a foreign currency swap transaction, the Company agrees with another party to exchange, at specified intervals, the difference between one currency and another at a fixed exchange rate, generally set at inception, calculated by reference to an agreed upon notional amount. The notional amount of each currency is exchanged at the inception and termination of the currency swap by each party. The Company utilizes foreign currency swaps in fair value, cash flow and nonqualifying hedging relationships.

In a foreign currency forward transaction, the Company agrees with another party to deliver a specified amount of an identified currency at a specified future date. The price is agreed upon at the time of the contract and payment for such a contract is made at the specified future date. The Company utilizes foreign currency forwards in fair value, net investment in foreign operations and nonqualifying hedging relationships.

The Company enters into currency options that give it the right, but not the obligation, to sell the foreign currency amount in exchange for a functional currency amount within a limited time at a contracted price. The contracts may also be net settled in cash, based on differentials in the foreign currency exchange rate and the strike price. The Company uses currency options to hedge against the foreign currency exposure inherent in certain of its variable annuity products. The Company also uses currency options as an economic hedge of foreign currency exposure related to the Company's non-U.S. subsidiaries. The Company utilizes currency options in net investment in foreign operations and nonqualifying hedging relationships.

To a lesser extent, the Company uses exchange-traded currency futures to hedge currency mismatches between assets and liabilities, and to hedge minimum guarantees embedded in certain variable annuity products offered by the Company. The Company utilizes exchange-traded currency futures in nonqualifying hedging relationships.

Credit Derivatives

The Company enters into purchased credit default swaps to hedge against credit-related changes in the value of its investments. In a credit default swap transaction, the Company agrees with another party to pay, at specified intervals, a premium to hedge credit risk. If a credit event occurs, as defined by the contract, the contract may be cash settled or it may be settled gross by the delivery of par quantities of the referenced investment equal to the specified swap notional amount in exchange for the payment of cash amounts by the counterparty equal to the par value of the investment surrendered. Credit events vary by type of issuer but typically include bankruptcy, failure to pay debt obligations and involuntary restructuring for corporate obligors, as well as repudiation, moratorium or governmental intervention for sovereign obligors. In each case, payout on a credit default swap is triggered only after the Credit Derivatives Determinations Committee of the International Swaps and Derivatives Association, Inc. ("ISDA") deems that a credit event has occurred. The Company utilizes credit default swaps in nonqualifying hedging relationships.

9. Derivatives (continued)

The Company enters into written credit default swaps to synthetically create credit investments that are either more expensive to acquire or otherwise unavailable in the cash markets. These transactions are a combination of a derivative and one or more cash instruments, such as U.S. government and agency, or other fixed maturity securities AFS. These credit default swaps are not designated as hedging instruments.

The Company also entered into certain purchased and written credit default swaps held in relation to trading portfolios for the purpose of generating profits on short-term differences in price. These credit default swaps were not designated as hedging instruments. As of December 31, 2016, the Company no longer maintained a trading portfolio for derivatives.

The Company enters into forwards to lock in the price to be paid for forward purchases of certain securities. The price is agreed upon at the time of the contract and payment for the contract is made at a specified future date. When the primary purpose of entering into these transactions is to hedge against the risk of changes in purchase price due to changes in credit spreads, the Company designates these transactions as credit forwards. The Company utilizes credit forwards in cash flow hedging relationships.

Equity Derivatives

The Company uses a variety of equity derivatives to reduce its exposure to equity market risk, including equity index options, equity variance swaps, exchange-traded equity futures and equity total return swaps.

Equity index options are used by the Company primarily to hedge minimum guarantees embedded in certain variable annuity products offered by the Company. To hedge against adverse changes in equity indices, the Company enters into contracts to sell the underlying equity index within a limited time at a contracted price. The contracts will be net settled in cash based on differentials in the indices at the time of exercise and the strike price. Certain of these contracts may also contain settlement provisions linked to interest rates. In certain instances, the Company may enter into a combination of transactions to hedge adverse changes in equity indices within a pre-determined range through the purchase and sale of options. The Company utilizes equity index options in nonqualifying hedging relationships.

Equity variance swaps are used by the Company primarily to hedge minimum guarantees embedded in certain variable annuity products offered by the Company. In an equity variance swap, the Company agrees with another party to exchange amounts in the future, based on changes in equity volatility over a defined period. The Company utilizes equity variance swaps in nonqualifying hedging relationships.

In exchange-traded equity futures transactions, the Company agrees to purchase or sell a specified number of contracts, the value of which is determined by the different classes of equity securities, to post variation margin on a daily basis in an amount equal to the difference in the daily market values of those contracts and to pledge initial margin based on futures exchange requirements. The Company enters into exchange-traded futures with regulated futures commission merchants that are members of the exchange. Exchange-traded equity futures are used primarily to hedge minimum guarantees embedded in certain variable annuity products offered by the Company. The Company utilizes exchange-traded equity futures in nonqualifying hedging relationships.

In an equity total return swap, the Company agrees with another party to exchange, at specified intervals, the difference between the economic risk and reward of an asset or a market index and a benchmark interest rate, calculated by reference to an agreed notional amount. No cash is exchanged at the outset of the contract. Cash is paid and received over the life of the contract based on the terms of the swap. The Company uses equity total return swaps to hedge its equity market guarantees in certain of its insurance products. Equity total return swaps can be used as hedges or to synthetically create investments. The Company utilizes equity total return swaps in nonqualifying hedging relationships.

9. Derivatives (continued)

Primary Risks Managed by Derivatives

The following table presents the primary underlying risk exposure, gross notional amount, and estimated fair value of the Company's derivatives, excluding embedded derivatives, held at:

		December 31,					
		2018			2017		
			Estimated Fair Value			Estimated Fair Value	
	Primary Underlying Risk Exposure	Gross Notional Amount	Assets	Liabilities	Gross Notional Amount	Assets	Liabilities
		(In millions)					
Derivatives Designated as Hedging Instruments:							
Fair value hedges:							
Interest rate swaps	Interest rate	$ 2,446	$ 2,197	$ 2	$ 3,843	$ 2,289	$ 3
Foreign currency swaps	Foreign currency exchange rate	1,233	54	—	1,116	50	18
Foreign currency forwards	Foreign currency exchange rate	2,140	28	18	3,253	2	37
Subtotal		5,819	2,279	20	8,212	2,341	58
Cash flow hedges:							
Interest rate swaps	Interest rate	3,515	143	1	3,584	235	4
Interest rate forwards	Interest rate	3,022	—	216	3,332	—	128
Foreign currency swaps	Foreign currency exchange rate	35,931	1,796	1,831	32,152	1,142	1,665
Subtotal		42,468	1,939	2,048	39,068	1,377	1,797
Foreign operations hedges:							
Foreign currency forwards	Foreign currency exchange rate	960	4	27	332	2	5
Currency options	Foreign currency exchange rate	5,137	3	202	9,408	44	163
Subtotal		6,097	7	229	9,740	46	168
Total qualifying hedges		54,384	4,225	2,297	57,020	3,764	2,023
Derivatives Not Designated or Not Qualifying as Hedging Instruments:							
Interest rate swaps	Interest rate	54,891	1,796	175	60,485	2,203	576
Interest rate floors	Interest rate	12,701	102	—	7,201	92	—
Interest rate caps	Interest rate	54,575	154	1	53,079	78	2
Interest rate futures	Interest rate	2,353	1	3	4,366	2	4
Interest rate options	Interest rate	26,690	416	—	12,009	656	11
Interest rate forwards	Interest rate	234	1	15	217	—	42
Interest rate total return swaps	Interest rate	1,048	33	2	1,048	8	2
Synthetic GICs	Interest rate	25,700	—	—	11,318	—	—
Foreign currency swaps	Foreign currency exchange rate	11,388	884	458	9,902	693	506
Foreign currency forwards	Foreign currency exchange rate	13,417	198	213	12,238	79	190
Currency futures	Foreign currency exchange rate	847	4	—	846	2	—
Currency options	Foreign currency exchange rate	2,040	7	—	3,123	55	6
Credit default swaps — purchased	Credit	1,903	25	39	2,020	7	43
Credit default swaps — written	Credit	11,391	95	13	11,375	271	—
Equity futures	Equity market	2,992	13	77	4,005	18	4
Equity index options	Equity market	27,707	884	550	19,886	569	690
Equity variance swaps	Equity market	2,269	40	87	4,661	54	199
Equity total return swaps	Equity market	929	91	—	1,117	—	41
Total non-designated or nonqualifying derivatives		253,075	4,744	1,633	218,896	4,787	2,316
Total		$ 307,459	$ 8,969	$ 3,930	$ 275,916	$ 8,551	$ 4,339

9. Derivatives (continued)

Based on gross notional amounts, a substantial portion of the Company's derivatives was not designated or did not qualify as part of a hedging relationship at both December 31, 2018 and 2017. The Company's use of derivatives includes (i) derivatives that serve as macro hedges of the Company's exposure to various risks and that generally do not qualify for hedge accounting due to the criteria required under the portfolio hedging rules; (ii) derivatives that economically hedge insurance liabilities that contain mortality or morbidity risk and that generally do not qualify for hedge accounting because the lack of these risks in the derivatives cannot support an expectation of a highly effective hedging relationship; (iii) derivatives that economically hedge embedded derivatives that do not qualify for hedge accounting because the changes in estimated fair value of the embedded derivatives are already recorded in net income; and (iv) written credit default swaps and interest rate swaps that are used to synthetically create investments and that do not qualify for hedge accounting because they do not involve a hedging relationship. For these nonqualified derivatives, changes in market factors can lead to the recognition of fair value changes on the statement of operations without an offsetting gain or loss recognized in earnings for the item being hedged.

Net Derivative Gains (Losses)

The components of net derivative gains (losses) were as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Freestanding derivative and hedging gains (losses) (1)	$ 1,001	$ (1,389)	$ (509)
Embedded derivative gains (losses)	(150)	799	(181)
Total net derivative gains (losses)	$ 851	$ (590)	$ (690)

(1) Includes foreign currency transaction gains (losses) on hedged items in cash flow and nonqualifying hedging relationships, which are not presented elsewhere in this note.

The following table presents earned income on derivatives:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Qualifying hedges:			
Net investment income	$ 360	$ 299	$ 267
Interest credited to policyholder account balances	(113)	(64)	(1)
Other expenses	(11)	(10)	(12)
Nonqualifying hedges:			
Net investment income	—	—	(1)
Net derivative gains (losses)	547	551	705
Policyholder benefits and claims	11	9	7
Total	$ 794	$ 785	$ 965

9. Derivatives (continued)

Nonqualifying Derivatives and Derivatives for Purposes Other Than Hedging

The following table presents the amount and location of gains (losses) recognized in income for derivatives that were not designated or not qualifying as hedging instruments:

	Net Derivative Gains (Losses)	Net Investment Income (1)	Policyholder Benefits and Claims (2)
		(In millions)	
Year Ended December 31, 2018			
Interest rate derivatives	$ (158)	$ 4	$ (6)
Foreign currency exchange rate derivatives	518	—	(6)
Credit derivatives — purchased	6	—	—
Credit derivatives — written	(132)	—	—
Equity derivatives	360	1	60
Total	$ 594	$ 5	$ 48
Year Ended December 31, 2017			
Interest rate derivatives	$ (549)	$ 1	$ (1)
Foreign currency exchange rate derivatives	(742)	—	5
Credit derivatives — purchased	(24)	—	—
Credit derivatives — written	145	—	—
Equity derivatives	(1,046)	(9)	(252)
Total	$ (2,216)	$ (8)	$ (248)
Year Ended December 31, 2016			
Interest rate derivatives	$ (990)	$ —	$ 46
Foreign currency exchange rate derivatives	882	—	(18)
Credit derivatives — purchased	(40)	—	—
Credit derivatives — written	71	—	—
Equity derivatives	(681)	(16)	(138)
Total	$ (758)	$ (16)	$ (110)

(1) Changes in estimated fair value related to economic hedges of equity method investments in joint ventures, derivatives held in relation to trading portfolios and derivatives held within Unit-linked investments. As of December 31, 2016, the Company no longer maintained a trading portfolio for derivatives.

(2) Changes in estimated fair value related to economic hedges of variable annuity guarantees included in future policy benefits.

Fair Value Hedges

The Company designates and accounts for the following as fair value hedges when they have met the requirements of fair value hedging: (i) interest rate swaps to convert fixed rate assets and liabilities to floating rate assets and liabilities; (ii) foreign currency swaps to hedge the foreign currency fair value exposure of foreign currency denominated assets and liabilities; and (iii) foreign currency forwards to hedge the foreign currency fair value exposure of foreign currency denominated investments.

9. Derivatives (continued)

The Company recognizes gains and losses on derivatives and the related hedged items in fair value hedges within net derivative gains (losses). The following table presents the amount of such net derivative gains (losses):

Derivatives in Fair Value Hedging Relationships	Hedged Items in Fair Value Hedging Relationships	Net Derivative Gains (Losses) Recognized for Derivatives	Net Derivative Gains (Losses) Recognized for Hedged Items	Ineffectiveness Recognized in Net Derivative Gains (Losses)
			(In millions)	
Year Ended December 31, 2018				
Interest rate swaps:	Fixed maturity securities AFS	$ 1	$ (1)	$ —
	Policyholder liabilities (1)	(221)	227	6
Foreign currency swaps:	Foreign-denominated fixed maturity securities AFS and mortgage loans	55	(57)	(2)
	Foreign-denominated policyholder account balances (2)	23	(23)	—
Foreign currency forwards:	Foreign-denominated fixed maturity securities AFS	78	(70)	8
Total		$ (64)	$ 76	$ 12
Year Ended December 31, 2017				
Interest rate swaps:	Fixed maturity securities AFS	$ 4	$ (4)	$ —
	Policyholder liabilities (1)	(69)	134	65
Foreign currency swaps:	Foreign-denominated fixed maturity securities AFS	(27)	29	2
	Foreign-denominated policyholder account balances (2)	65	(44)	21
Foreign currency forwards:	Foreign-denominated fixed maturity securities AFS	13	(11)	2
Total		$ (14)	$ 104	$ 90
Year Ended December 31, 2016				
Interest rate swaps:	Fixed maturity securities AFS	$ 7	$ (9)	$ (2)
	Policyholder liabilities (1)	(108)	90	(18)
Foreign currency swaps:	Foreign-denominated fixed maturity securities AFS	13	(12)	1
	Foreign-denominated policyholder account balances (2)	(95)	92	(3)
Foreign currency forwards:	Foreign-denominated fixed maturity securities AFS	127	(119)	8
Total		$ (56)	$ 42	$ (14)

(1) Fixed rate liabilities reported in policyholder account balances or future policy benefits.

(2) Fixed rate or floating rate liabilities.

For the Company's foreign currency forwards, the change in the estimated fair value of the derivative related to the changes in the difference between the spot price and the forward price is excluded from the assessment of hedge effectiveness. For all other derivatives, all components of each derivative's gain or loss were included in the assessment of hedge effectiveness. For the years ended December 31, 2018, 2017 and 2016, the component of the change in estimated fair value of derivatives that was excluded from the assessment of hedge effectiveness was ($58) million, ($40) million and ($23) million, respectively.

9. Derivatives (continued)

Cash Flow Hedges

The Company designates and accounts for the following as cash flow hedges when they have met the requirements of cash flow hedging: (i) interest rate swaps to convert floating rate assets and liabilities to fixed rate assets and liabilities; (ii) foreign currency swaps to hedge the foreign currency cash flow exposure of foreign currency denominated assets and liabilities; (iii) interest rate forwards and credit forwards to lock in the price to be paid for forward purchases of investments; (iv) interest rate swaps and interest rate forwards to hedge the forecasted purchases of fixed rate investments; and (v) interest rate swaps and interest rate forwards to hedge forecasted fixed rate borrowings.

In certain instances, the Company discontinued cash flow hedge accounting because the forecasted transactions were no longer probable of occurring. Because certain of the forecasted transactions also were not probable of occurring within two months of the anticipated date, the Company reclassified amounts from AOCI into net derivative gains (losses). These amounts were $5 million, $13 million and $12 million for the years ended December 31, 2018, 2017 and 2016, respectively.

At December 31, 2018 and 2017, the maximum length of time over which the Company was hedging its exposure to variability in future cash flows for forecasted transactions did not exceed four years and five years, respectively.

At December 31, 2018 and 2017, the balance in AOCI associated with cash flow hedges was $2.1 billion and $1.5 billion, respectively. Upon the Separation, the Company recorded a reduction of $414 million of deferred gains within AOCI.

For the years ended December 31, 2017 and 2016, the amounts of deferred gains (losses) in AOCI related to Brighthouse derivatives were ($92) million and $71 million, respectively. For the years ended December 31, 2017 and 2016, the amounts of income reclassified from AOCI into income (loss) from discontinued operations were $16 million and $45 million, respectively.

The following table presents the effects of derivatives in cash flow hedging relationships on the consolidated statements of operations and the consolidated statements of equity. The table excludes the effects of Brighthouse derivatives prior to the Separation.

Derivatives in Cash Flow Hedging Relationships	Amount of Gains (Losses)Deferred in AOCI on Derivatives	Amount and Location of Gains (Losses) Reclassified from AOCI into Income (Loss)			Amount and Location of Gains (Losses) Recognized in Income (Loss) on Derivatives
	(Effective Portion)	(Effective Portion)			(Ineffective Portion)
		Net Derivative Gains (Losses)	Net Investment Income	Other Expenses	Net Derivative Gains (Losses)
	(In millions)				
Year Ended December 31, 2018					
Interest rate swaps	$ (143)	$ 23	$ 18	$ —	$ 3
Interest rate forwards	(114)	(2)	2	1	—
Foreign currency swaps	414	(558)	(5)	2	8
Credit forwards	—	1	1	—	—
Total	$ 157	$ (536)	$ 16	$ 3	$ 11
Year Ended December 31, 2017					
Interest rate swaps	$ 78	$ 24	$ 16	$ —	$ 18
Interest rate forwards	210	(11)	2	1	(2)
Foreign currency swaps	(335)	974	—	2	(4)
Credit forwards	—	1	—	—	—
Total	$ (47)	$ 988	$ 18	$ 3	$ 12
Year Ended December 31, 2016					
Interest rate swaps	$ 50	$ 56	$ 12	$ —	$ (1)
Interest rate forwards	(366)	(1)	4	1	—
Foreign currency swaps	589	(350)	(2)	2	1
Credit forwards	—	3	1	—	—
Total	$ 273	$ (292)	$ 15	$ 3	$ —

All components of each derivative’s gain or loss were included in the assessment of hedge effectiveness.

9. Derivatives (continued)

At December 31, 2018, the Company expected to reclassify ($63) million of deferred net gains (losses) on derivatives in AOCI, included in the table above, to earnings within the next 12 months.

Hedges of Net Investments in Foreign Operations

The Company uses foreign currency exchange rate derivatives, which may include foreign currency forwards and currency options, to hedge portions of its net investments in foreign operations against adverse movements in exchange rates. The Company measures ineffectiveness on these derivatives based upon the change in forward rates.

When net investments in foreign operations are sold or substantially liquidated, the amounts in AOCI are reclassified to the statement of operations.

The following table presents the effects of derivatives in net investment hedging relationships on the consolidated statements of operations and the consolidated statements of equity:

	Amount of Gains (Losses) Deferred in AOCI		
	Years Ended December 31,		
Derivatives in Net Investment Hedging Relationships (1)	**2018**	**2017**	**2016**
		(In millions)	
Foreign currency forwards	$ 35	$ (155)	$ (267)
Currency options	(160)	(290)	(35)
Total	$ (125)	$ (445)	$ (302)

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(1) There was no ineffectiveness recognized for the Company's hedges of net investments in foreign operations. All components of each derivative's gain or loss were included in the assessment of hedge effectiveness.

At December 31, 2018 and 2017, the cumulative foreign currency translation gain (loss) recorded in AOCI related to hedges of net investments in foreign operations was $184 million and $309 million, respectively.

Credit Derivatives

In connection with synthetically created credit investment transactions, the Company writes credit default swaps for which it receives a premium to insure credit risk. Such credit derivatives are included within the nonqualifying derivatives and derivatives for purposes other than hedging table. If a credit event occurs, as defined by the contract, the contract may be cash settled or it may be settled gross by the Company paying the counterparty the specified swap notional amount in exchange for the delivery of par quantities of the referenced credit obligation. The Company's maximum amount at risk, assuming the value of all referenced credit obligations is zero, was $11.4 billion at both December 31, 2018 and 2017. The Company can terminate these contracts at any time through cash settlement with the counterparty at an amount equal to the then current estimated fair value of the credit default swaps. At December 31, 2018 and 2017, the Company would have received $82 million and $271 million, respectively, to terminate all of these contracts.

9. Derivatives (continued)

The following table presents the estimated fair value, maximum amount of future payments and weighted average years to maturity of written credit default swaps at:

	December 31,					
	2018			2017		
Rating Agency Designation of Referenced Credit Obligations (1)	Estimated Fair Value of Credit Default Swaps	Maximum Amount of Future Payments under Credit Default Swaps	Weighted Average Years to Maturity (2)	Estimated Fair Value of Credit Default Swaps	Maximum Amount of Future Payments under Credit Default Swaps	Weighted Average Years to Maturity (2)
	(Dollars in millions)					
Aaa/Aa/A						
Single name credit default swaps (3)	$ 4	$ 354	1.7	$ 7	$ 375	2.6
Credit default swaps referencing indices	28	2,154	2.5	44	2,268	2.7
Subtotal	32	2,508	2.4	51	2,643	2.7
Baa						
Single name credit default swaps (3)	3	482	1.5	7	605	1.8
Credit default swaps referencing indices	40	8,056	5.0	183	7,662	5.0
Subtotal	43	8,538	4.8	190	8,267	4.8
Ba						
Single name credit default swaps (3)	—	15	2.0	1	115	3.4
Credit default swaps referencing indices	—	—	—	—	—	—
Subtotal	—	15	2.0	1	115	3.4
B						
Single name credit default swaps (3)	—	—	—	2	20	3.5
Credit default swaps referencing indices	7	330	5.0	27	330	5.0
Subtotal	7	330	5.0	29	350	4.9
Total	$ 82	$ 11,391	4.3	$ 271	$ 11,375	4.3

(1) The rating agency designations are based on availability and the midpoint of the applicable ratings among Moody's Investors Service ("Moody's"), S&P and Fitch Ratings. If no rating is available from a rating agency, then an internally developed rating is used.

(2) The weighted average years to maturity of the credit default swaps is calculated based on weighted average gross notional amounts.

(3) Single name credit default swaps may be referenced to the credit of corporations, foreign governments, or state and political subdivisions.

The Company has also entered into credit default swaps to purchase credit protection on certain of the referenced credit obligations in the table above. As a result, the maximum amounts of potential future recoveries available to offset the $11.4 billion of future payments under credit default provisions at both December 31, 2018 and 2017 set forth in the table above were $16 million and $27 million at December 31, 2018 and 2017, respectively.

Credit Risk on Freestanding Derivatives

The Company may be exposed to credit-related losses in the event of nonperformance by its counterparties to derivatives. Generally, the current credit exposure of the Company's derivatives is limited to the net positive estimated fair value of derivatives at the reporting date after taking into consideration the existence of master netting or similar agreements and any collateral received pursuant to such agreements.

9. Derivatives (continued)

The Company manages its credit risk related to derivatives by entering into transactions with creditworthy counterparties and establishing and monitoring exposure limits. The Company's OTC-bilateral derivative transactions are governed by ISDA Master Agreements which provide for legally enforceable set-off and close-out netting of exposures to specific counterparties in the event of early termination of a transaction, which includes, but is not limited to, events of default and bankruptcy. In the event of an early termination, the Company is permitted to set off receivables from the counterparty against payables to the same counterparty arising out of all included transactions. Substantially all of the Company's ISDA Master Agreements also include Credit Support Annex provisions which require both the pledging and accepting of collateral in connection with its OTC-bilateral derivatives.

The Company's OTC-cleared derivatives are effected through central clearing counterparties and its exchange-traded derivatives are effected through regulated exchanges. Such positions are marked to market and margined on a daily basis (both initial margin and variation margin), and the Company has minimal exposure to credit-related losses in the event of nonperformance by counterparties to such derivatives.

See Note 10 for a description of the impact of credit risk on the valuation of derivatives.

The estimated fair values of the Company's net derivative assets and net derivative liabilities after the application of master netting agreements and collateral were as follows at:

	December 31,			
	2018		2017	
Derivatives Subject to a Master Netting Arrangement or a Similar Arrangement	**Assets**	**Liabilities**	**Assets**	**Liabilities**
	(In millions)			
Gross estimated fair value of derivatives:				
OTC-bilateral (1)	$ 8,805	$ 3,758	$ 7,955	$ 4,059
OTC-cleared (1), (6)	245	33	649	223
Exchange-traded	18	80	22	8
Total gross estimated fair value of derivatives (1)	9,068	3,871	8,626	4,290
Amounts offset on the consolidated balance sheets	—	—	—	—
Estimated fair value of derivatives presented on the consolidated balance sheets (1), (6)	9,068	3,871	8,626	4,290
Gross amounts not offset on the consolidated balance sheets:				
Gross estimated fair value of derivatives: (2)				
OTC-bilateral	(2,570)	(2,570)	(2,528)	(2,528)
OTC-cleared	(25)	(25)	(35)	(35)
Exchange-traded	(1)	(1)	(1)	(1)
Cash collateral: (3), (4)				
OTC-bilateral	(4,709)	—	(4,169)	—
OTC-cleared	(145)	—	(584)	(179)
Exchange-traded	—	(57)	—	(5)
Securities collateral: (5)				
OTC-bilateral	(1,266)	(1,134)	(1,004)	(1,474)
OTC-cleared	—	(8)	—	(9)
Exchange-traded	—	(7)	—	(2)
Net amount after application of master netting agreements and collateral	$ 352	$ 69	$ 305	$ 57

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(1) At December 31, 2018 and 2017, derivative assets included income or (expense) accruals reported in accrued investment income or in other liabilities of $99 million and $75 million, respectively, and derivative liabilities included (income) or expense accruals reported in accrued investment income or in other liabilities of ($59) million and ($49) million, respectively.

9. Derivatives (continued)

(2) Estimated fair value of derivatives is limited to the amount that is subject to set-off and includes income or expense accruals.

(3) Cash collateral received by the Company for OTC-bilateral and OTC-cleared derivatives is included in cash and cash equivalents, short-term investments or in fixed maturity securities AFS, and the obligation to return it is included in payables for collateral under securities loaned and other transactions on the balance sheet.

(4) The receivable for the return of cash collateral provided by the Company is inclusive of initial margin on exchange-traded and OTC-cleared derivatives and is included in premiums, reinsurance and other receivables on the balance sheet. The amount of cash collateral offset in the table above is limited to the net estimated fair value of derivatives after application of netting agreements. At December 31, 2018 and 2017, the Company received excess cash collateral of $135 million and $253 million, respectively, and provided excess cash collateral of $226 million and $272 million, respectively, which is not included in the table above due to the foregoing limitation.

(5) Securities collateral received by the Company is held in separate custodial accounts and is not recorded on the balance sheet. Subject to certain constraints, the Company is permitted by contract to sell or re-pledge this collateral, but at December 31, 2018, none of the collateral had been sold or re-pledged. Securities collateral pledged by the Company is reported in fixed maturity securities AFS on the balance sheet. Subject to certain constraints, the counterparties are permitted by contract to sell or re-pledge this collateral. The amount of securities collateral offset in the table above is limited to the net estimated fair value of derivatives after application of netting agreements and cash collateral. At December 31, 2018 and 2017, the Company received excess securities collateral with an estimated fair value of $70 million and $108 million, respectively, for its OTC-bilateral derivatives, which are not included in the table above due to the foregoing limitation. At December 31, 2018 and 2017, the Company provided excess securities collateral with an estimated fair value of $212 million and $305 million, respectively, for its OTC-bilateral derivatives, $601 million and $522 million, respectively, for its OTC-cleared derivatives, and $90 million and $89 million, respectively, for its exchange-traded derivatives, which are not included in the table above due to the foregoing limitation.

(6) Effective January 16, 2018, the LCH amended its rulebook, resulting in the characterization of variation margin transfers as settlement payments, as opposed to adjustments to collateral. Effective January 3, 2017, the CME amended its rulebook, resulting in the characterization of variation margin transfers as settlement payments, as opposed to adjustments to collateral. See Note 1 for further information on the LCH and CME amendments.

The Company's collateral arrangements for its OTC-bilateral derivatives generally require the counterparty in a net liability position, after considering the effect of netting agreements, to pledge collateral when the collateral amount owed by that counterparty reaches a minimum transfer amount. A small number of these arrangements also include credit-contingent provisions that include a threshold above which collateral must be posted. Such agreements provide for a reduction of these thresholds (on a sliding scale that converges toward zero) in the event of downgrades in the credit ratings of MetLife, Inc. and/or the counterparty. In addition, substantially all of the Company's netting agreements for derivatives contain provisions that require both the Company and the counterparty to maintain a specific investment grade credit rating from each of Moody's and S&P. If a party's credit or financial strength rating, as applicable, were to fall below that specific investment grade credit rating, that party would be in violation of these provisions, and the other party to the derivatives could terminate the transactions and demand immediate settlement and payment based on such party's reasonable valuation of the derivatives.

9. Derivatives (continued)

The following table presents the estimated fair value of the Company's OTC-bilateral derivatives that were in a net liability position after considering the effect of netting agreements, together with the estimated fair value and balance sheet location of the collateral pledged. The table also presents the incremental collateral that MetLife, Inc. would be required to provide if there was a one-notch downgrade in MetLife, Inc.'s senior unsecured debt rating at the reporting date or if the Company's credit or financial strength rating, as applicable, at the reporting date sustained a downgrade to a level that triggered full overnight collateralization or termination of the derivative position. OTC-bilateral derivatives that are not subject to collateral agreements are excluded from this table.

	December 31,					
	2018			2017		
	Derivatives Subject to Credit-Contingent Provisions	Derivatives Not Subject to Credit-Contingent Provisions	Total	Derivatives Subject to Credit-Contingent Provisions	Derivatives Not Subject to Credit-Contingent Provisions	Total
	(In millions)					
Estimated Fair Value of Derivatives in a Net Liability Position (1)	$ 1,148	$ 40	$ 1,188	$ 1,508	$ 24	$ 1,532
Estimated Fair Value of Collateral Provided:						
Fixed maturity securities AFS	$ 1,218	$ 9	$ 1,227	$ 1,675	$ 26	$ 1,701
Cash	$ 6	$ —	$ 6	$ —	$ —	$ —
Estimated Fair Value of Incremental Collateral Provided Upon:						
One-notch downgrade in the Company's credit or financial strength rating, as applicable	$ 10	$ —	$ 10	$ 15	$ —	$ 15
Downgrade in the Company's credit or financial strength rating, as applicable, to a level that triggers full overnight collateralization or termination of the derivative position	$ 10	$ —	$ 10	$ 20	$ —	$ 20

(1) After taking into consideration the existence of netting agreements.

Embedded Derivatives

The Company issues certain products or purchases certain investments that contain embedded derivatives that are required to be separated from their host contracts and accounted for as freestanding derivatives. These host contracts principally include: variable annuities with guaranteed minimum benefits, including GMWBs, GMABs and certain GMIBs; ceded reinsurance of guaranteed minimum benefits related to certain GMIBs; assumed reinsurance of guaranteed minimum benefits related to GMWBs and GMABs; funding agreements with equity or bond indexed crediting rates; funds withheld on ceded reinsurance; fixed annuities with equity-indexed returns; and certain debt and equity securities.

9. Derivatives (continued)

The following table presents the estimated fair value and balance sheet location of the Company's embedded derivatives that have been separated from their host contracts at:

	Balance Sheet Location	December 31, 2018	December 31, 2017
		(In millions)	
Embedded derivatives within asset host contracts:			
Ceded guaranteed minimum benefits	Premiums, reinsurance and other receivables	$ 71	$ 144
Options embedded in debt or equity securities (1)	Investments	—	(132)
Embedded derivatives within asset host contracts		$ 71	$ 12
Embedded derivatives within liability host contracts:			
Direct guaranteed minimum benefits	Policyholder account balances	$ 298	$ 32
Assumed guaranteed minimum benefits	Policyholder account balances	495	291
Funds withheld on ceded reinsurance	Other liabilities	(41)	25
Fixed annuities with equity indexed returns	Policyholder account balances	58	70
Embedded derivatives within liability host contracts		$ 810	$ 418

(1) Effective January 1, 2018, in connection with the adoption of new guidance related to the recognition and measurement of financial instruments, the Company was no longer required to bifurcate and account separately for derivatives embedded in equity securities (see Note 1). Beginning January 1, 2018, the change in fair value of equity securities was recognized as a component of net investment gains and losses.

The following table presents changes in estimated fair value related to embedded derivatives:

	Years Ended December 31, 2018	2017	2016
		(In millions)	
Net derivative gains (losses) (1)	$ (150)	$ 799	$ (181)

(1) The valuation of guaranteed minimum benefits includes a nonperformance risk adjustment. The amounts included in net derivative gains (losses) in connection with this adjustment were $133 million, ($190) million and $156 million for the years ended December 31, 2018, 2017 and 2016, respectively.

10. Fair Value

When developing estimated fair values, the Company considers three broad valuation approaches: (i) the market approach, (ii) the income approach, and (iii) the cost approach. The Company determines the most appropriate valuation approach to use, given what is being measured and the availability of sufficient inputs, giving priority to observable inputs. The Company categorizes its assets and liabilities measured at estimated fair value into a three-level hierarchy, based on the significant input with the lowest level in its valuation. The input levels are as follows:

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities. The Company defines active markets based on average trading volume for equity securities. The size of the bid/ask spread is used as an indicator of market activity for fixed maturity securities AFS.

Level 2 Quoted prices in markets that are not active or inputs that are observable either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities other than quoted prices in Level 1, quoted prices in markets that are not active, or other significant inputs that are observable or can be derived principally from or corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and are significant to the determination of estimated fair value of the assets or liabilities. Unobservable inputs reflect the reporting entity's own assumptions about the assumptions that market participants would use in pricing the asset or liability.

Financial markets are susceptible to severe events evidenced by rapid depreciation in asset values accompanied by a reduction in asset liquidity. The Company's ability to sell securities, as well as the price ultimately realized for these securities, depends upon the demand and liquidity in the market and increases the use of judgment in determining the estimated fair value of certain securities.

Considerable judgment is often required in interpreting market data to develop estimates of fair value, and the use of different assumptions or valuation methodologies may have a material effect on the estimated fair value amounts.

10. Fair Value (continued)

Recurring Fair Value Measurements

The assets and liabilities measured at estimated fair value on a recurring basis and their corresponding placement in the fair value hierarchy, including those items for which the Company has elected the FVO, are presented below at:

	December 31, 2018			
	Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total Estimated Fair Value
	(In millions)			
Assets				
Fixed maturity securities AFS:				
U.S. corporate	$ —	$ 74,874	$ 4,074	$ 78,948
Foreign government	—	62,150	138	62,288
Foreign corporate	—	50,310	6,393	56,703
U.S. government and agency	19,656	19,666	—	39,322
RMBS	—	24,734	3,227	27,961
ABS	—	11,775	697	12,472
Municipals	—	11,533	—	11,533
CMBS	—	8,696	342	9,038
Total fixed maturity securities AFS	19,656	263,738	14,871	298,265
Equity securities	916	105	419	1,440
Unit-linked and FVO Securities (1)	10,216	1,995	405	12,616
Short-term investments (2)	1,470	1,746	33	3,249
Residential mortgage loans — FVO	—	—	299	299
Other investments	80	118	39	237
Derivative assets: (3)				
Interest rate	1	4,809	33	4,843
Foreign currency exchange rate	4	2,922	52	2,978
Credit	—	91	29	120
Equity market	13	956	59	1,028
Total derivative assets	18	8,778	173	8,969
Embedded derivatives within asset host contracts (4)	—	—	71	71
Separate account assets (5)	79,726	94,886	944	175,556
Total assets (6)	$ 112,082	$ 371,366	$ 17,254	$ 500,702
Liabilities				
Derivative liabilities: (3)				
Interest rate	$ 3	$ 194	$ 218	$ 415
Foreign currency exchange rate	—	2,660	89	2,749
Credit	—	48	4	52
Equity market	77	550	87	714
Total derivative liabilities	80	3,452	398	3,930
Embedded derivatives within liability host contracts (4)	—	—	810	810
Separate account liabilities (5)	1	20	7	28
Total liabilities	$ 81	$ 3,472	$ 1,215	$ 4,768

10. Fair Value (continued)

	December 31, 2017			
	Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total Estimated Fair Value
	(In millions)			
Assets				
Fixed maturity securities AFS:				
U.S. corporate	$ —	$ 78,171	$ 4,490	$ 82,661
Foreign government	—	61,325	209	61,534
Foreign corporate	—	48,840	6,729	55,569
U.S. government and agency	26,052	21,342	—	47,394
RMBS	—	25,339	3,461	28,800
ABS	—	11,204	1,087	12,291
Municipals	—	12,455	—	12,455
CMBS	—	7,934	293	8,227
Total fixed maturity securities AFS	26,052	266,610	16,269	308,931
Equity securities	1,104	981	428	2,513
Unit-linked and FVO Securities (1)	14,028	2,355	362	16,745
Short-term investments (2)	3,001	1,252	33	4,286
Residential mortgage loans — FVO	—	—	520	520
Other investments	81	84	—	165
Derivative assets: (3)				
Interest rate	2	5,553	8	5,563
Foreign currency exchange rate	2	1,954	113	2,069
Credit	—	240	38	278
Equity market	18	548	75	641
Total derivative assets	22	8,295	234	8,551
Embedded derivatives within asset host contracts (4)	—	—	144	144
Separate account assets (5)	89,916	114,124	961	205,001
Total assets	$ 134,204	$ 393,701	$ 18,951	$ 546,856
Liabilities				
Derivative liabilities: (3)				
Interest rate	$ 4	$ 638	$ 130	$ 772
Foreign currency exchange rate	—	2,553	37	2,590
Credit	—	43	—	43
Equity market	4	731	199	934
Total derivative liabilities	8	3,965	366	4,339
Embedded derivatives within liability host contracts (4)	—	—	418	418
Separate account liabilities (5)	—	7	2	9
Total liabilities	$ 8	$ 3,972	$ 786	$ 4,766

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(1) Unit-linked and FVO Securities were primarily comprised of Unit-linked investments at both December 31, 2018 and 2017.

(2) Short-term investments as presented in the tables above differ from the amounts presented on the consolidated balance sheets because certain short-term investments are not measured at estimated fair value on a recurring basis.

(3) Derivative assets are presented within other invested assets on the consolidated balance sheets and derivative liabilities are presented within other liabilities on the consolidated balance sheets. The amounts are presented gross in the tables above to reflect the presentation on the consolidated balance sheets, but are presented net for purposes of the rollforward in the Fair Value Measurements Using Significant Unobservable Inputs (Level 3) tables.

10. Fair Value (continued)

(4) Embedded derivatives within asset host contracts are presented within premiums, reinsurance and other receivables and other invested assets on the consolidated balance sheets. Embedded derivatives within liability host contracts are presented within policyholder account balances and other liabilities on the consolidated balance sheets. At December 31, 2018 and 2017, debt and equity securities also included embedded derivatives of $0 and ($132) million, respectively.

(5) Investment performance related to separate account assets is fully offset by corresponding amounts credited to contractholders whose liability is reflected within separate account liabilities. Separate account liabilities are set equal to the estimated fair value of separate account assets. Separate account liabilities presented in the tables above represent derivative liabilities.

(6) In connection with the adoption of new guidance related to the recognition and measurement of financial instruments (see Note 1), other limited partnership interests are measured at estimated fair value on a recurring basis, effective January 1, 2018. This represents the former cost method investments held as of January 1, 2018 that were measured at estimated fair value on a recurring basis upon adoption of this guidance. Total assets included in the fair value hierarchy exclude these other limited partnership interests that are measured at estimated fair value using the net asset value ("NAV") per share (or its equivalent) practical expedient. At December 31, 2018, the estimated fair value of such investments was $145 million.

The following describes the valuation methodologies used to measure assets and liabilities at fair value.

Investments

Securities, Short-term Investments and Other Investments

When available, the estimated fair value of these financial instruments is based on quoted prices in active markets that are readily and regularly obtainable. Generally, these are the most liquid of the Company's securities holdings and valuation of these securities does not involve management's judgment.

When quoted prices in active markets are not available, the determination of estimated fair value is based on market standard valuation methodologies, giving priority to observable inputs. The significant inputs to the market standard valuation methodologies for certain types of securities with reasonable levels of price transparency are inputs that are observable in the market or can be derived principally from, or corroborated by, observable market data. When observable inputs are not available, the market standard valuation methodologies rely on inputs that are significant to the estimated fair value that are not observable in the market or cannot be derived principally from, or corroborated by, observable market data. These unobservable inputs can be based in large part on management's judgment or estimation and cannot be supported by reference to market activity. Even though these inputs are unobservable, management believes they are consistent with what other market participants would use when pricing such securities and are considered appropriate given the circumstances.

The estimated fair value of other investments is determined on a basis consistent with the methodologies described herein for securities.

The valuation approaches and key inputs for each category of assets or liabilities that are classified within Level 2 and Level 3 of the fair value hierarchy are presented below. The valuation of most instruments listed below is determined using independent pricing sources, matrix pricing, discounted cash flow methodologies or other similar techniques that use either observable market inputs or unobservable inputs.

10. Fair Value (continued)

<table>
<tr><th>Instrument</th><th>Level 2
Observable Inputs</th><th>Level 3
Unobservable Inputs</th></tr>
<tr><td colspan="3">Fixed maturity securities AFS</td></tr>
<tr><td colspan="3">U.S. corporate and Foreign corporate securities</td></tr>
<tr><td></td><td>Valuation Approaches: Principally the market and income approaches.
Key Inputs:
• quoted prices in markets that are not active
• benchmark yields; spreads off benchmark yields; new issuances; issuer rating
• trades of identical or comparable securities; duration
• Privately-placed securities are valued using the additional key inputs:
  • market yield curve; call provisions
  • observable prices and spreads for similar public or private securities that incorporate the credit quality and industry sector of the issuer
  • delta spread adjustments to reflect specific credit-related issues</td><td>Valuation Approaches: Principally the market approach.
Key Inputs:
• illiquidity premium
• delta spread adjustments to reflect specific credit-related issues
• credit spreads
• quoted prices in markets that are not active for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2
• independent non-binding broker quotations</td></tr>
<tr><td colspan="3">Foreign government securities, U.S. government and agency securities and Municipals</td></tr>
<tr><td></td><td>Valuation Approaches: Principally the market approach.
Key Inputs:
• quoted prices in markets that are not active
• benchmark U.S. Treasury yield or other yields
• the spread off the U.S. Treasury yield curve for the identical security
• issuer ratings and issuer spreads; broker-dealer quotes
• comparable securities that are actively traded</td><td>Valuation Approaches: Principally the market approach.
Key Inputs:
• independent non-binding broker quotations
• quoted prices in markets that are not active for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2
• credit spreads</td></tr>
<tr><td colspan="3">Structured Securities</td></tr>
<tr><td></td><td>Valuation Approaches: Principally the market and income approaches.
Key Inputs:
• quoted prices in markets that are not active
• spreads for actively traded securities; spreads off benchmark yields
• expected prepayment speeds and volumes
• current and forecasted loss severity; ratings; geographic region
• weighted average coupon and weighted average maturity
• average delinquency rates; debt-service coverage ratios
• issuance-specific information, including, but not limited to:
  • collateral type; structure of the security; vintage of the loans
  • payment terms of the underlying assets
  • payment priority within the tranche; deal performance</td><td>Valuation Approaches: Principally the market and income approaches.
Key Inputs:
• credit spreads
• quoted prices in markets that are not active for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2
• independent non-binding broker quotations</td></tr>
</table>

10. Fair Value (continued)

Instrument	Level 2 Observable Inputs	Level 3 Unobservable Inputs
Equity securities		
	Valuation Approaches: Principally the market approach. Key Input: • quoted prices in markets that are not considered active	Valuation Approaches: Principally the market and income approaches. Key Inputs: • credit ratings; issuance structures • quoted prices in markets that are not active for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2 • independent non-binding broker quotations
Unit-linked and FVO Securities, Short-term investments and Other investments		
	• Unit-linked and FVO Securities include mutual fund interests without readily determinable fair values given prices are not published publicly. Valuation of these mutual funds is based upon quoted prices or reported NAV provided by the fund managers, which were based on observable inputs. • Short-term investments and other investments are of a similar nature and class to the fixed maturity securities AFS and equity securities described above; accordingly, the valuation approaches and observable inputs used in their valuation are also similar to those described above.	• Unit-linked and FVO Securities, short-term investments and other investments are of a similar nature and class to the fixed maturity securities AFS and equity securities described above; accordingly, the valuation approaches and unobservable inputs used in their valuation are also similar to those described above.
Residential mortgage loans — FVO		
	• N/A	Valuation Approaches: Principally the market approach. Valuation Techniques and Key Inputs: These investments are based primarily on matrix pricing or other similar techniques that utilize inputs from mortgage servicers that are unobservable or cannot be derived principally from, or corroborated by, observable market data.
Separate account assets and Separate account liabilities (1)		
Mutual funds and hedge funds without readily determinable fair values as prices are not published publicly		
	Key Input: • quoted prices or reported NAV provided by the fund managers	• N/A
Other limited partnership interests		
	• N/A	• Valued giving consideration to the underlying holdings of the partnerships and adjusting, if appropriate. Key Inputs: • liquidity; bid/ask spreads; performance record of the fund manager • other relevant variables that may impact the exit value of the particular partnership interest

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(1) Estimated fair value equals carrying value, based on the value of the underlying assets, including: mutual fund interests, fixed maturity securities, equity securities, derivatives, hedge funds, other limited partnership interests, short-term investments and cash and cash equivalents. Fixed maturity securities, equity securities, derivatives, short-term investments and cash and cash equivalents are similar in nature to the instruments described under "— Securities, Short-term Investments and Other Investments," and "— Derivatives — Freestanding Derivatives."

10. Fair Value (continued)

Derivatives

The estimated fair value of derivatives is determined through the use of quoted market prices for exchange-traded derivatives, or through the use of pricing models for OTC-bilateral and OTC-cleared derivatives. The determination of estimated fair value, when quoted market values are not available, is based on market standard valuation methodologies and inputs that management believes are consistent with what other market participants would use when pricing such instruments. Derivative valuations can be affected by changes in interest rates, foreign currency exchange rates, financial indices, credit spreads, default risk, nonperformance risk, volatility, liquidity and changes in estimates and assumptions used in the pricing models.

The significant inputs to the pricing models for most OTC-bilateral and OTC-cleared derivatives are inputs that are observable in the market or can be derived principally from, or corroborated by, observable market data. Certain OTC-bilateral and OTC-cleared derivatives may rely on inputs that are significant to the estimated fair value that are not observable in the market or cannot be derived principally from, or corroborated by, observable market data. These unobservable inputs may involve significant management judgment or estimation. Even though unobservable, these inputs are based on assumptions deemed appropriate given the circumstances and management believes they are consistent with what other market participants would use when pricing such instruments.

Most inputs for OTC-bilateral and OTC-cleared derivatives are mid-market inputs but, in certain cases, liquidity adjustments are made when they are deemed more representative of exit value. Market liquidity, as well as the use of different methodologies, assumptions and inputs, may have a material effect on the estimated fair values of the Company's derivatives and could materially affect net income.

The credit risk of both the counterparty and the Company are considered in determining the estimated fair value for all OTC-bilateral and OTC-cleared derivatives, and any potential credit adjustment is based on the net exposure by counterparty after taking into account the effects of netting agreements and collateral arrangements. The Company values its OTC-bilateral and OTC-cleared derivatives using standard swap curves which may include a spread to the risk-free rate, depending upon specific collateral arrangements. This credit spread is appropriate for those parties that execute trades at pricing levels consistent with similar collateral arrangements. As the Company and its significant derivative counterparties generally execute trades at such pricing levels and hold sufficient collateral, additional credit risk adjustments are not currently required in the valuation process. The Company's ability to consistently execute at such pricing levels is in part due to the netting agreements and collateral arrangements that are in place with all of its significant derivative counterparties. An evaluation of the requirement to make additional credit risk adjustments is performed by the Company each reporting period.

Freestanding Derivatives

Level 2 Valuation Approaches and Key Inputs:

This level includes all types of derivatives utilized by the Company with the exception of exchange-traded derivatives included within Level 1 and those derivatives with unobservable inputs as described in Level 3.

Level 3 Valuation Approaches and Key Inputs:

These valuation methodologies generally use the same inputs as described in the corresponding sections for Level 2 measurements of derivatives. However, these derivatives result in Level 3 classification because one or more of the significant inputs are not observable in the market or cannot be derived principally from, or corroborated by, observable market data.

10. Fair Value (continued)

Freestanding derivatives are principally valued using the income approach. Valuations of non-option-based derivatives utilize present value techniques, whereas valuations of option-based derivatives utilize option pricing models. Key inputs are as follows:

Instrument	Interest Rate	Foreign Currency Exchange Rate	Credit	Equity Market
Inputs common to Level 2 and Level 3 by instrument type	• swap yield curves • basis curves • interest rate volatility (1)	• swap yield curves • basis curves • currency spot rates • cross currency basis curves • currency volatility (1)	• swap yield curves • credit curves • recovery rates	• swap yield curves • spot equity index levels • dividend yield curves • equity volatility (1)
Level 3	• swap yield curves (2) • basis curves (2) • repurchase rates	• swap yield curves (2) • basis curves (2) • cross currency basis curves (2) • currency correlation • currency volatility (1)	• swap yield curves (2) • credit curves (2) • credit spreads • repurchase rates • independent non-binding broker quotations	• dividend yield curves (2) • equity volatility (1), (2) • correlation between model inputs (1)

(1) Option-based only.

(2) Extrapolation beyond the observable limits of the curve(s).

Embedded Derivatives

Embedded derivatives principally include certain direct, assumed and ceded variable annuity guarantees, equity or bond indexed crediting rates within certain funding agreements and annuity contracts, and those related to funds withheld on ceded reinsurance agreements. Embedded derivatives are recorded at estimated fair value with changes in estimated fair value reported in net income.

The Company issues certain variable annuity products with guaranteed minimum benefits. GMWBs, GMABs and certain GMIBs contain embedded derivatives, which are measured at estimated fair value separately from the host variable annuity contract, with changes in estimated fair value reported in net derivative gains (losses). These embedded derivatives are classified within policyholder account balances on the consolidated balance sheets.

The Company calculates the fair value of these embedded derivatives, which are estimated as the present value of projected future benefits minus the present value of projected future fees using actuarial and capital market assumptions including expectations concerning policyholder behavior. The calculation is based on in-force business, projecting future cash flows from the embedded derivative over multiple risk neutral stochastic scenarios using observable risk-free rates.

Capital market assumptions, such as risk-free rates and implied volatilities, are based on market prices for publicly traded instruments to the extent that prices for such instruments are observable. Implied volatilities beyond the observable period are extrapolated based on observable implied volatilities and historical volatilities. Actuarial assumptions, including mortality, lapse, withdrawal and utilization, are unobservable and are reviewed at least annually based on actuarial studies of historical experience.

The valuation of these guarantee liabilities includes nonperformance risk adjustments and adjustments for a risk margin related to non-capital market inputs. The nonperformance adjustment is determined by taking into consideration publicly available information relating to spreads in the secondary market for MetLife, Inc.'s debt, including related credit default swaps. These observable spreads are then adjusted, as necessary, to reflect the priority of these liabilities and the claims paying ability of the issuing insurance subsidiaries as compared to MetLife, Inc.

10. Fair Value (continued)

Risk margins are established to capture the non-capital market risks of the instrument which represent the additional compensation a market participant would require to assume the risks related to the uncertainties of such actuarial assumptions as annuitization, premium persistency, partial withdrawal and surrenders. The establishment of risk margins requires the use of significant management judgment, including assumptions of the amount and cost of capital needed to cover the guarantees. These guarantees may be more costly than expected in volatile or declining equity markets. Market conditions including, but not limited to, changes in interest rates, equity indices, market volatility and foreign currency exchange rates; changes in nonperformance risk; and variations in actuarial assumptions regarding policyholder behavior, mortality and risk margins related to non-capital market inputs, may result in significant fluctuations in the estimated fair value of the guarantees that could materially affect net income.

The Company ceded the risk associated with certain of the GMIBs previously described. These reinsurance agreements contain embedded derivatives which are included within premiums, reinsurance and other receivables on the consolidated balance sheets with changes in estimated fair value reported in net derivative gains (losses) or policyholder benefits and claims depending on the statement of operations classification of the direct risk. The value of the embedded derivatives on the ceded risk is determined using a methodology consistent with that described previously for the guarantees directly written by the Company with the exception of the input for nonperformance risk that reflects the credit of the reinsurer.

The estimated fair value of the embedded derivatives within funds withheld related to certain ceded reinsurance is determined based on the change in estimated fair value of the underlying assets held by the Company in a reference portfolio backing the funds withheld liability. The estimated fair value of the underlying assets is determined as described in "— Investments — Securities, Short-term Investments and Other Investments." The estimated fair value of these embedded derivatives is included, along with their funds withheld hosts, in other liabilities on the consolidated balance sheets with changes in estimated fair value recorded in net derivative gains (losses). Changes in the credit spreads on the underlying assets, interest rates and market volatility may result in significant fluctuations in the estimated fair value of these embedded derivatives that could materially affect net income.

The estimated fair value of the embedded equity and bond indexed derivatives contained in certain funding agreements is determined using market standard swap valuation models and observable market inputs, including a nonperformance risk adjustment. The estimated fair value of these embedded derivatives are included, along with their funding agreements host, within policyholder account balances with changes in estimated fair value recorded in net derivative gains (losses). Changes in equity and bond indices, interest rates and the Company's credit standing may result in significant fluctuations in the estimated fair value of these embedded derivatives that could materially affect net income.

The Company issues certain annuity contracts which allow the policyholder to participate in returns from equity indices. These equity indexed features are embedded derivatives which are measured at estimated fair value separately from the host fixed annuity contract, with changes in estimated fair value reported in net derivative gains (losses). These embedded derivatives are classified within policyholder account balances on the consolidated balance sheets.

The estimated fair value of the embedded equity indexed derivatives, based on the present value of future equity returns to the policyholder using actuarial and present value assumptions including expectations concerning policyholder behavior, is calculated by the Company's actuarial department. The calculation is based on in-force business and uses standard capital market techniques, such as Black-Scholes, to calculate the value of the portion of the embedded derivative for which the terms are set. The portion of the embedded derivative covering the period beyond where terms are set is calculated as the present value of amounts expected to be spent to provide equity indexed returns in those periods. The valuation of these embedded derivatives also includes the establishment of a risk margin, as well as changes in nonperformance risk.

10. Fair Value (continued)

Embedded Derivatives Within Asset and Liability Host Contracts

Level 3 Valuation Approaches and Key Inputs:

Direct and assumed guaranteed minimum benefits

These embedded derivatives are principally valued using the income approach. Valuations are based on option pricing techniques, which utilize significant inputs that may include swap yield curves, currency exchange rates and implied volatilities. These embedded derivatives result in Level 3 classification because one or more of the significant inputs are not observable in the market or cannot be derived principally from, or corroborated by, observable market data. Significant unobservable inputs generally include: the extrapolation beyond observable limits of the swap yield curves and implied volatilities, actuarial assumptions for policyholder behavior and mortality and the potential variability in policyholder behavior and mortality, nonperformance risk and cost of capital for purposes of calculating the risk margin.

Reinsurance ceded on certain guaranteed minimum benefits

These embedded derivatives are principally valued using the income approach. The valuation techniques and significant market standard unobservable inputs used in their valuation are similar to those described above in "— Direct and assumed guaranteed minimum benefits" and also include counterparty credit spreads.

Transfers between Levels

Overall, transfers between levels occur when there are changes in the observability of inputs and market activity.

Transfers into or out of Level 3:

Assets and liabilities are transferred into Level 3 when a significant input cannot be corroborated with market observable data. This occurs when market activity decreases significantly and underlying inputs cannot be observed, current prices are not available, and/or when there are significant variances in quoted prices, thereby affecting transparency. Assets and liabilities are transferred out of Level 3 when circumstances change such that a significant input can be corroborated with market observable data. This may be due to a significant increase in market activity, a specific event, or one or more significant input(s) becoming observable.

10. Fair Value (continued)

Assets and Liabilities Measured at Fair Value Using Significant Unobservable Inputs (Level 3)

The following table presents certain quantitative information about the significant unobservable inputs used in the fair value measurement, and the sensitivity of the estimated fair value to changes in those inputs, for the more significant asset and liability classes measured at fair value on a recurring basis using significant unobservable inputs (Level 3) at:

			December 31, 2018		December 31, 2017		
	Valuation Techniques	Significant Unobservable Inputs	Range	Weighted Average (1)	Range	Weighted Average (1)	Impact of Increase in Input on Estimated Fair Value (2)
Fixed maturity securities AFS (3)							
U.S. corporate and foreign corporate	• Matrix pricing	• Offered quotes (4)	85 - 134	104	83 - 142	110	Increase
	• Market pricing	• Quoted prices (4)	25 - 638	110	10 - 443	121	Increase
	• Consensus pricing	• Offered quotes (4)	100 - 110	102	97 - 104	101	Increase
RMBS	• Market pricing	• Quoted prices (4)	— - 106	94	— - 126	94	Increase (5)
ABS	• Market pricing	• Quoted prices (4)	3 - 116	97	5 - 117	100	Increase (5)
	• Consensus pricing	• Offered quotes (4)	100 - 103	101	100 - 103	100	Increase (5)
Derivatives							
Interest rate	• Present value techniques	• Swap yield (6)	268 - 317		200 - 300		Increase (7)
		• Repurchase rates (8)	(5) - 6		(5) - 5		Decrease (7)
Foreign currency exchange rate	• Present value techniques	• Swap yield (6)	(20) - 328		(14) - 309		Increase (7)
Credit	• Present value techniques	• Credit spreads (9)	97 - 103		— - —		Decrease (7)
	• Consensus pricing	• Offered quotes (10)					
Equity market	• Present value techniques or option pricing models	• Volatility (11)	21% - 26%		11% - 31%		Increase (7)
		• Correlation (12)	10% - 30%		10% - 30%		
Embedded derivatives							
Direct, assumed and ceded guaranteed minimum benefits	• Option pricing techniques	• Mortality rates:					
		Ages 0 - 40	0% - 0.18%		0% - 0.21%		Decrease (13)
		Ages 41 - 60	0.03% - 0.80%		0.03% - 0.75%		Decrease (13)
		Ages 61 - 115	0.12% - 100%		0.15% - 100%		Decrease (13)
		• Lapse rates:					
		Durations 1 - 10	0.25% - 100%		0.25% - 100%		Decrease (14)
		Durations 11 - 20	2% - 100%		2% - 100%		Decrease (14)
		Durations 21 - 116	1.25% - 100%		1.25% - 100%		Decrease (14)
		• Utilization rates	0% - 25%		0% - 25%		Increase (15)
		• Withdrawal rates	0% - 20%		0% - 20%		(16)
		• Long-term equity volatilities	7.16% - 30%		8.25% - 33%		Increase (17)
		• Nonperformance risk spread	0.04% - 1.77%		0.02% - 1.32%		Decrease (18)

(1) The weighted average for fixed maturity securities AFS is determined based on the estimated fair value of the securities.

(2) The impact of a decrease in input would have resulted in the opposite impact on estimated fair value. For embedded derivatives, changes to direct and assumed guaranteed minimum benefits are based on liability positions; changes to ceded guaranteed minimum benefits are based on asset positions.

(3) Significant increases (decreases) in expected default rates in isolation would have resulted in substantially lower (higher) valuations.

(4) Range and weighted average are presented in accordance with the market convention for fixed maturity securities AFS of dollars per hundred dollars of par.

10. Fair Value (continued)

(5) Changes in the assumptions used for the probability of default would have been accompanied by a directionally similar change in the assumption used for the loss severity and a directionally opposite change in the assumptions used for prepayment rates.

(6) Ranges represent the rates across different yield curves and are presented in basis points. The swap yield curves are utilized among different types of derivatives to project cash flows, as well as to discount future cash flows to present value. Since this valuation methodology uses a range of inputs across a yield curve to value the derivative, presenting a range is more representative of the unobservable input used in the valuation.

(7) Changes in estimated fair value are based on long U.S. dollar net asset positions and will be inversely impacted for short U.S. dollar net asset positions.

(8) Ranges represent different repurchase rates utilized as components within the valuation methodology and are presented in basis points.

(9) Represents the risk quoted in basis points of a credit default event on the underlying instrument. Credit derivatives with significant unobservable inputs are primarily comprised of written credit default swaps.

(10) At both December 31, 2018 and 2017, independent non-binding broker quotations were used in the determination of less than 1% of the total net derivative estimated fair value.

(11) Ranges represent the underlying equity volatility quoted in percentage points. Since this valuation methodology uses a range of inputs across multiple volatility surfaces to value the derivative, presenting a range is more representative of the unobservable input used in the valuation.

(12) Ranges represent the different correlation factors utilized as components within the valuation methodology. Presenting a range of correlation factors is more representative of the unobservable input used in the valuation. Increases (decreases) in correlation in isolation will increase (decrease) the significance of the change in valuations.

(13) Mortality rates vary by age and by demographic characteristics such as gender. Mortality rate assumptions are based on company experience. A mortality improvement assumption is also applied. For any given contract, mortality rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative.

(14) Base lapse rates are adjusted at the contract level based on a comparison of the actuarially calculated guaranteed values and the current policyholder account value, as well as other factors, such as the applicability of any surrender charges. A dynamic lapse function reduces the base lapse rate when the guaranteed amount is greater than the account value as in the money contracts are less likely to lapse. Lapse rates are also generally assumed to be lower in periods when a surrender charge applies. For any given contract, lapse rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative.

(15) The utilization rate assumption estimates the percentage of contractholders with a GMIB or lifetime withdrawal benefit who will elect to utilize the benefit upon becoming eligible. The rates may vary by the type of guarantee, the amount by which the guaranteed amount is greater than the account value, the contract's withdrawal history and by the age of the policyholder. For any given contract, utilization rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative.

(16) The withdrawal rate represents the percentage of account balance that any given policyholder will elect to withdraw from the contract each year. The withdrawal rate assumption varies by age and duration of the contract, and also by other factors such as benefit type. For any given contract, withdrawal rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative. For GMWBs, any increase (decrease) in withdrawal rates results in an increase (decrease) in the estimated fair value of the guarantees. For GMABs and GMIBs, any increase (decrease) in withdrawal rates results in a decrease (increase) in the estimated fair value.

(17) Long-term equity volatilities represent equity volatility beyond the period for which observable equity volatilities are available. For any given contract, long-term equity volatility rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative.

(18) Nonperformance risk spread varies by duration and by currency. For any given contract, multiple nonperformance risk spreads will apply, depending on the duration of the cash flow being discounted for purposes of valuing the embedded derivative.

10. Fair Value (continued)

The following is a summary of the valuation techniques and significant unobservable inputs used in the fair value measurement of assets and liabilities classified within Level 3 that are not included in the preceding table. Generally, all other classes of securities classified within Level 3, including those within separate account assets, and embedded derivatives within funds withheld related to certain ceded reinsurance, use the same valuation techniques and significant unobservable inputs as previously described for Level 3 securities. This includes matrix pricing and discounted cash flow methodologies, inputs such as quoted prices for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2, as well as independent non-binding broker quotations. The residential mortgage loans — FVO are valued using independent non-binding broker quotations and internal models including matrix pricing and discounted cash flow methodologies using current interest rates. The sensitivity of the estimated fair value to changes in the significant unobservable inputs for these other assets and liabilities is similar in nature to that described in the preceding table. The valuation techniques and significant unobservable inputs used in the fair value measurement for the more significant assets measured at estimated fair value on a nonrecurring basis and determined using significant unobservable inputs (Level 3) are summarized in "— Nonrecurring Fair Value Measurements."

10. Fair Value (continued)

The following tables summarize the change of all assets and (liabilities) measured at estimated fair value on a recurring basis using significant unobservable inputs (Level 3):

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)					
	Fixed Maturity Securities AFS					
	Corporate (1)	Foreign Government	Structured Securities	Municipals	Equity Securities	Unit-linked and FVO Securities
	(In millions)					
Balance, January 1, 2017	$ 11,537	$ 289	$ 5,215	$ 10	$ 468	$ 287
Total realized/unrealized gains (losses) included in net income (loss) (2) (3)	3	4	94	—	—	22
Total realized/unrealized gains (losses) included in AOCI	708	—	133	—	19	—
Purchases (4)	3,830	30	1,376	—	25	292
Sales (4)	(1,763)	(53)	(1,598)	—	(51)	(141)
Issuances (4)	—	—	—	—	—	—
Settlements (4)	—	—	—	—	—	—
Transfers into Level 3 (5)	72	5	70	—	1	8
Transfers out of Level 3 (5)	(3,168)	(66)	(449)	(10)	(34)	(106)
Balance, December 31, 2017	11,219	209	4,841	—	428	362
Total realized/unrealized gains (losses) included in net income (loss) (2) (3)	9	3	82	—	(36)	6
Total realized/unrealized gains (losses) included in AOCI	(745)	(14)	(23)	—	—	—
Purchases (4)	1,903	5	1,142	—	13	263
Sales (4)	(1,464)	(47)	(946)	—	(28)	(176)
Issuances (4)	—	—	—	—	—	—
Settlements (4)	—	—	—	—	—	—
Transfers into Level 3 (5)	152	—	59	—	52	9
Transfers out of Level 3 (5)	(607)	(18)	(889)	—	(10)	(59)
Balance, December 31, 2018	$ 10,467	$ 138	$ 4,266	$ —	$ 419	$ 405
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2016: (6)	$ 6	$ 12	$ 103	$ 1	$ (29)	$ 3
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2017: (6)	$ 1	$ 4	$ 84	$ —	$ (17)	$ 19
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2018: (6)	$ 1	$ 1	$ 70	$ —	$ (26)	$ 8
Gains (Losses) Data for the year ended December 31, 2016:						
Total realized/unrealized gains (losses) included in net income (loss) (2) (3)	$ 5	$ 12	$ 103	$ 1	$ (24)	$ 2
Total realized/unrealized gains (losses) included in AOCI	$ 59	$ (42)	$ 56	$ 2	$ 19	$ —

10. Fair Value (continued)

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)					
	Short-term Investments	Residential Mortgage Loans - FVO	Other Investments	Net Derivatives (7)	Net Embedded Derivatives (8)	Separate Accounts (9)
	(In millions)					
Balance, January 1, 2017	$ 46	$ 566	$ —	$ (562)	$ (729)	$ 1,141
Total realized/unrealized gains (losses) included in net income (loss) (2) (3)	—	40	—	87	823	(8)
Total realized/unrealized gains (losses) included in AOCI	—	—	—	216	(46)	—
Purchases (4)	32	175	—	—	—	187
Sales (4)	(1)	(179)	—	—	—	(80)
Issuances (4)	—	—	—	(7)	—	1
Settlements (4)	—	(82)	—	134	(322)	(93)
Transfers into Level 3 (5)	—	—	—	—	—	35
Transfers out of Level 3 (5)	(44)	—	—	—	—	(224)
Balance, December 31, 2017	33	520	—	(132)	(274)	959
Total realized/unrealized gains (losses) included in net income (loss) (2) (3)	(1)	7	—	(161)	(150)	7
Total realized/unrealized gains (losses) included in AOCI	(1)	—	—	(140)	(15)	—
Purchases (4)	34	—	39	5	—	198
Sales (4)	(12)	(162)	—	—	—	(168)
Issuances (4)	—	—	—	(1)	—	(3)
Settlements (4)	—	(66)	—	204	(300)	(1)
Transfers into Level 3 (5)	—	—	—	—	—	53
Transfers out of Level 3 (5)	(20)	—	—	—	—	(108)
Balance, December 31, 2018	$ 33	$ 299	$ 39	$ (225)	$ (739)	$ 937
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2016: (6)	$ 1	$ 8	$ —	$ (56)	$ (242)	$ —
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2017: (6)	$ —	$ 27	$ —	$ 53	$ 793	$ —
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2018: (6)	$ (1)	$ (15)	$ —	$ (59)	$ (150)	$ —
Gains (Losses) Data for the year ended December 31, 2016:						
Total realized/unrealized gains (losses) included in net income (loss) (2) (3)	$ 1	$ 8	$ —	$ (31)	$ (214)	$ (2)
Total realized/unrealized gains (losses) included in AOCI	$ 4	$ —	$ —	$ (367)	$ (20)	$ —

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(1) Comprised of U.S. and foreign corporate securities.

(2) Amortization of premium/accretion of discount is included within net investment income. Impairments charged to net income (loss) on securities are included in net investment gains (losses), while changes in estimated fair value of residential mortgage loans — FVO are included in net investment income. Lapses associated with net embedded derivatives are included in net derivative gains (losses). Substantially all realized/unrealized gains (losses) included in net income (loss) for net derivatives and net embedded derivatives are reported in net derivative gains (losses).

(3) Interest and dividend accruals, as well as cash interest coupons and dividends received, are excluded from the rollforward.

(4) Items purchased/issued and then sold/settled in the same period are excluded from the rollforward. Fees attributed to embedded derivatives are included in settlements.

(5) Items transferred into and then out of Level 3 in the same period are excluded from the rollforward.

(6) Changes in unrealized gains (losses) included in net income (loss) relate to assets and liabilities still held at the end of the respective periods. Substantially all changes in unrealized gains (losses) included in net income (loss) for net derivatives and net embedded derivatives are reported in net derivative gains (losses).

10. Fair Value (continued)

(7) Freestanding derivative assets and liabilities are presented net for purposes of the rollforward.

(8) Embedded derivative assets and liabilities are presented net for purposes of the rollforward.

(9) Investment performance related to separate account assets is fully offset by corresponding amounts credited to contractholders within separate account liabilities. Therefore, such changes in estimated fair value are not recorded in net income (loss). For the purpose of this disclosure, these changes are presented within net investment gains (losses). Separate account assets and liabilities are presented net for the purposes of the rollforward.

Fair Value Option

The Company elects the FVO for certain residential mortgage loans that are managed on a total return basis. The following table presents information for residential mortgage loans, which are accounted for under the FVO and were initially measured at fair value.

	December 31, 2018		December 31, 2017	
	(In millions)			
Unpaid principal balance	$	344	$	650
Difference between estimated fair value and unpaid principal balance		(45)		(130)
Carrying value at estimated fair value	$	299	$	520
Loans in nonaccrual status	$	89	$	198
Loans more than 90 days past due	$	41	$	94
Loans in nonaccrual status or more than 90 days past due, or both — difference between aggregate estimated fair value and unpaid principal balance	$	(36)	$	(102)

Nonrecurring Fair Value Measurements

The following table presents information for assets measured at estimated fair value on a nonrecurring basis during the periods and still held at the reporting dates (for example, when there is evidence of impairment). The estimated fair values for these assets were determined using significant unobservable inputs (Level 3).

	At December 31,						Years Ended December 31,					
	2018		2017		2016		2018		2017		2016	
	Carrying Value After Measurement						Gains (Losses)					
	(In millions)											
Other limited partnership interests (1)		N/A (2)	$	58	$	96		N/A (2)	$	(65)	$	(64)
Other assets (3)	$	—	$	—	$	—	$	—	$	10	$	(30)

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(1) Estimated fair value is determined from information provided on the financial statements of the underlying entities including NAV data. These investments include private equity and debt funds that typically invest primarily in various strategies including leveraged buyout funds; power, energy, timber and infrastructure development funds; venture capital funds; and below investment grade debt and mezzanine debt funds. In the future, distributions will be generated from investment gains, from operating income from the underlying investments of the funds and from liquidation of the underlying assets of the funds, the exact timing of which is uncertain.

(2) In connection with the adoption of new guidance related to the recognition and measurement of financial instruments (see Note 1), other limited partnership interests are measured at estimated fair value on a recurring basis effective January 1, 2018.

(3) As discussed in Note 3, during the year ended December 31, 2016, the Company recognized an impairment of computer software in connection with the U.S. Retail Advisor Force Divestiture.

10. Fair Value (continued)

Fair Value of Financial Instruments Carried at Other Than Fair Value

The following tables provide fair value information for financial instruments that are carried on the balance sheet at amounts other than fair value. These tables exclude the following financial instruments: cash and cash equivalents, accrued investment income, payables for collateral under securities loaned and other transactions, short-term debt and those short-term investments that are not securities, such as time deposits, and therefore are not included in the three-level hierarchy table disclosed in the "— Recurring Fair Value Measurements" section. The estimated fair value of the excluded financial instruments, which are primarily classified in Level 2, approximates carrying value as they are short-term in nature such that the Company believes there is minimal risk of material changes in interest rates or credit quality. All remaining balance sheet amounts excluded from the tables below are not considered financial instruments subject to this disclosure.

The carrying values and estimated fair values for such financial instruments, and their corresponding placement in the fair value hierarchy, are summarized as follows at:

	December 31, 2018				
		Fair Value Hierarchy			
	Carrying Value	Level 1	Level 2	Level 3	Total Estimated Fair Value
			(In millions)		
Assets					
Mortgage loans	$ 75,453	$ —	$ —	$ 76,379	$ 76,379
Policy loans	$ 9,699	$ —	$ 338	$ 11,028	$ 11,366
Other invested assets	$ 1,177	$ —	$ 793	$ 383	$ 1,176
Premiums, reinsurance and other receivables	$ 3,658	$ —	$ 903	$ 2,894	$ 3,797
Other assets	$ 326	$ —	$ 164	$ 186	$ 350
Liabilities					
Policyholder account balances	$ 114,040	$ —	$ —	$ 114,924	$ 114,924
Long-term debt	$ 12,820	$ —	$ 13,611	$ —	$ 13,611
Collateral financing arrangement	$ 1,060	$ —	$ —	$ 853	$ 853
Junior subordinated debt securities	$ 3,147	$ —	$ 3,738	$ —	$ 3,738
Other liabilities	$ 2,963	$ —	$ 1,324	$ 2,194	$ 3,518
Separate account liabilities	$ 104,010	$ —	$ 104,010	$ —	$ 104,010

10. Fair Value (continued)

	December 31, 2017				
		Fair Value Hierarchy			
	Carrying Value	Level 1	Level 2	Level 3	Total Estimated Fair Value
			(In millions)		
Assets					
Mortgage loans	$ 68,211	$ —	$ —	$ 69,797	$ 69,797
Policy loans	$ 9,669	$ —	$ 336	$ 11,176	$ 11,512
Other limited partnership interests	$ 219	$ —	$ —	$ 216	$ 216
Other invested assets	$ 443	$ —	$ —	$ 443	$ 443
Premiums, reinsurance and other receivables	$ 4,155	$ —	$ 1,283	$ 3,056	$ 4,339
Other assets	$ 285	$ —	$ 189	$ 139	$ 328
Liabilities					
Policyholder account balances	$ 114,355	$ —	$ —	$ 116,534	$ 116,534
Long-term debt	$ 15,675	$ —	$ 17,773	$ —	$ 17,773
Collateral financing arrangement	$ 1,121	$ —	$ —	$ 894	$ 894
Junior subordinated debt securities	$ 3,144	$ —	$ 4,319	$ —	$ 4,319
Other liabilities	$ 3,208	$ —	$ 1,496	$ 2,345	$ 3,841
Separate account liabilities	$ 124,011	$ —	$ 124,011	$ —	$ 124,011

11. Goodwill

Goodwill is the excess of cost over the estimated fair value of net assets acquired. Goodwill is not amortized but is tested for impairment at least annually or more frequently if events or circumstances, such as adverse changes in the business climate, indicate that there may be justification for conducting an interim test. The goodwill impairment process requires a comparison of the estimated fair value of a reporting unit to its carrying value. The Company tests goodwill for impairment by either performing a qualitative assessment or a quantitative test. The qualitative impairment assessment is an assessment of historical information and relevant events and circumstances to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. The Company may elect not to perform the qualitative impairment assessment for some or all of its reporting units and perform a quantitative impairment test. In performing the quantitative impairment test, the Company may determine the fair values of its reporting units by applying a market multiple, discounted cash flow, and/or an actuarial-based valuation approach.

The valuation methodologies utilized are subject to key judgments and assumptions that are sensitive to change. Estimates of fair value are inherently uncertain and represent only management's reasonable expectation regarding future developments. These estimates and the judgments and assumptions upon which the estimates are based will, in all likelihood, differ in some respects from actual future results. Declines in the estimated fair value of the Company's reporting units could result in goodwill impairments in future periods which could materially adversely affect the Company's results of operations or financial position.

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11. Goodwill (continued)

Information regarding goodwill by segment, as well as Corporate & Other, was as follows:

	U.S.	Asia (1)	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Balance at January 1, 2016							
Goodwill	$ 1,451	$ 4,508	$ 1,186	$ 1,143	$ 1,567	$ 42	$ 9,897
Accumulated impairment (2)	—	—	—	—	(680)	—	(680)
Total goodwill, net	1,451	4,508	1,186	1,143	887	42	9,217
Dispositions (3)	—	—	—	—	—	(42)	(42)
Effect of foreign currency translation and other	—	88	40	(83)	—	—	45
Balance at December 31, 2016							
Goodwill	1,451	4,596	1,226	1,060	1,567	—	9,900
Accumulated impairment	—	—	—	—	(680)	—	(680)
Total goodwill, net	1,451	4,596	1,226	1,060	887	—	9,220
Acquisition	—	—	—	—	—	103	103
Dispositions (4)	—	—	(16)	—	—	—	(16)
Effect of foreign currency translation and other	—	77	96	110	—	—	283
Balance at December 31, 2017							
Goodwill	1,451	4,673	1,306	1,170	1,567	103	10,270
Accumulated impairment	—	—	—	—	(680)	—	(680)
Total goodwill, net	1,451	4,673	1,306	1,170	887	103	9,590
Effect of foreign currency translation and other	—	17	(134)	(51)	—	—	(168)
Balance at December 31, 2018							
Goodwill	1,451	4,690	1,172	1,119	1,567	103	10,102
Accumulated impairment	—	—	—	—	(680)	—	(680)
Total goodwill, net	$ 1,451	$ 4,690	$ 1,172	$ 1,119	$ 887	$ 103	$ 9,422

(1) Includes goodwill of $4.5 billion, $4.5 billion and $4.4 billion from the Japan operations at December 31, 2018, 2017 and 2016, respectively.

(2) The $680 million accumulated impairment in the MetLife Holdings segment relates to the retail annuities business impaired in 2012 that was not part of the Separation. See Note 3.

(3) In connection with the U.S. Retail Advisor Force Divestiture, goodwill in Corporate & Other was reduced by $42 million for the year ended December 31, 2016. See Note 3.

(4) In connection with the disposition of MetLife Afore, goodwill was reduced by $16 million for the year ended December 31, 2017. See Note 3.

12. Long-term and Short-term Debt

Long-term and short-term debt outstanding, excluding debt relating to CSEs, was as follows:

	Interest Rates (1)			December 31,					
				2018			2017		
	Range	Weighted Average	Maturity	Face Value	Unamortized Discount and Issuance Costs	Carrying Value	Face Value	Unamortized Discount and Issuance Costs	Carrying Value
				(In millions)					
Senior notes	3.00% - 6.50%	4.96%	2020 - 2046	$ 11,923	$ (79)	$ 11,844	$ 14,685	$ (86)	$ 14,599
Surplus notes	7.63% - 7.88%	7.79%	2024 - 2025	507	(4)	503	507	(5)	502
Other notes (2)	2.99% - 6.50%	4.92%	2020 - 2058	477	$ (4)	473	578	(4)	574
Capital lease obligations				4	—	4	5	—	5
Total long-term debt				12,911	(87)	12,824	15,775	(95)	15,680
Total short-term debt				268	—	268	477	—	477
Total				$ 13,179	$ (87)	$ 13,092	$ 16,252	$ (95)	$ 16,157

(1) Range of interest rates and weighted average interest rates are for the year ended December 31, 2018.

(2) During 2017, an affiliate issued $139 million of long-term debt to a third party.

The aggregate maturities of long-term debt at December 31, 2018 for the next five years and thereafter are $2 million in 2019, $512 million in 2020, $368 million in 2021, $797 million in 2022, $1.0 billion in 2023 and $10.1 billion thereafter.

Capital lease obligations are collateralized and rank highest in priority, followed by unsecured senior notes and other notes, followed by subordinated debt which consists of junior subordinated debt securities (see Note 14). Payments of interest and principal on the Company's surplus notes, which are subordinate to all other obligations of the operating company issuing the notes and are senior to obligations of MetLife, Inc., may be made only with the prior approval of the insurance department of the state of domicile of the notes issuer. The Company's collateral financing arrangement (see Note 13) is supported by surplus notes of a subsidiary and, accordingly, has priority consistent with surplus notes.

Certain of the Company's debt instruments and committed facilities, as well as its unsecured revolving credit facility, contain various administrative, reporting, legal and financial covenants. The Company believes it was in compliance with all applicable financial covenants at December 31, 2018.

Senior Notes

In June 2018, MetLife, Inc. sold FVO Brighthouse Common Stock in exchange for $944 million aggregate principal amount of MetLife Inc.'s senior notes. MetLife, Inc. purchased and canceled $343 million of its $1,035 million aggregate principal amount 6.817% senior notes due August 2018; $469 million of its $1,035 million aggregate principal amount 7.717% senior notes due February 2019 and $132 million of its $1,000 million aggregate principal amount 4.750% senior notes due February 2021. In June 2018, MetLife, Inc. additionally purchased for cash and canceled $160 million of its $1,035 million aggregate principal amount 6.817% senior notes due August 2018. The Company recorded a premium of $30 million paid in excess of the debt principal and incurred $37 million of advisory and other fees related to the exchange transaction to other expenses for the year ended December 31, 2018. See Note 3 for additional information on the FVO Brighthouse Common Stock exchange transaction.

In August 2018, MetLife, Inc. purchased for cash and canceled the remaining $566 million of its $1,035 million aggregate principal amount 7.717% senior notes due February 2019. The Company recorded a premium of $14 million paid in excess of the debt principal and accrued, unpaid interest to other expenses for the year ended December 31, 2018.

In December 2018, MetLife, Inc. purchased for cash and canceled an additional $500 million of its $1,000 million aggregate principal amount 4.750% senior notes due February 2021. The Company recorded a premium of $18 million paid in excess of the debt principal and accrued, unpaid interest to other expenses for the year ended December 31, 2018.

12. Long-term and Short-term Debt (continued)

Term Loans

MetLife Private Equity Holdings, LLC ("MPEH"), a wholly-owned indirect investment subsidiary of MLIC, borrowed $350 million in December 2015 under a five-year credit agreement included within other notes in the table above. In November 2017, this agreement was amended to extend the maturity to November 2022, change the amount MPEH may borrow on a revolving basis to $75 million from $100 million, and change the interest rate to a variable rate of three-month London Interbank Offered Rate ("LIBOR") plus 3.25%, payable quarterly, from a variable rate of three-month LIBOR plus 3.70%. In December 2018, this agreement was further amended to change the interest rate to a variable rate of three-month LIBOR plus 3.10%. In connection with the initial borrowing in 2015, $6 million of costs were incurred, and additional costs of $1 million were incurred in connection with the 2017 amendment, which have been capitalized and are being amortized over the term of the loans. MPEH has pledged invested assets to secure the loans; however, these loans are non-recourse to MLIC and MetLife, Inc. In December 2018, MPEH repaid $50 million of the initial borrowing.

Short-term Debt

Short-term debt with maturities of one year or less was as follows:

	December 31,	
	2018	2017
	(Dollars in millions)	
Commercial paper	$ 99	$ 100
Short-term borrowings (1)	169	377
Total short-term debt	$ 268	$ 477
Average daily balance	$ 429	$ 280
Average days outstanding	32 days	27 days

(1) Includes $169 million and $374 million at December 31, 2018 and 2017, respectively, of short-term debt related to repurchase agreements, secured by assets of subsidiaries.

During the years ended December 31, 2018, 2017 and 2016, the weighted average interest rate on short-term debt was 3.02%, 2.41% and 1.32%, respectively.

Interest Expense

Interest expense included in other expenses was $827 million, $841 million and $874 million for the years ended December 31, 2018, 2017 and 2016, respectively. Such amounts do not include interest expense on long-term debt related to CSEs, the collateral financing arrangement, or junior subordinated debt securities. See Notes 13 and 14.

Credit and Committed Facilities

At December 31, 2018, the Company maintained a $3.0 billion unsecured revolving credit facility (the "Credit Facility") and certain committed facilities (the "Committed Facilities") aggregating $3.3 billion. When drawn upon, these facilities bear interest at varying rates in accordance with the respective agreements.

Credit Facility

The Company's Credit Facility is used for general corporate purposes, to support the borrowers' commercial paper programs and for the issuance of letters of credit. Total fees associated with the Credit Facility were $10 million, $13 million and $15 million for the years ended December 31, 2018, 2017 and 2016, respectively, and were included in other expenses. Information on the Credit Facility at December 31, 2018 was as follows:

Borrower(s)	Expiration	Maximum Capacity	Letters of Credit Issued	Drawdowns	Unused Commitments
			(In millions)		
MetLife, Inc. and MetLife Funding, Inc.	December 2021 (1)	$ 3,000 (1)	$ 446	$ —	$ 2,554

12. Long-term and Short-term Debt (continued)

(1) All borrowings under the Credit Facility must be repaid by December 20, 2021, except that letters of credit outstanding upon termination may remain outstanding until December 20, 2022.

Committed Facilities

Letters of credit issued under the Committed Facilities are used for collateral for certain of the Company's affiliated reinsurance liabilities. Total fees associated with the Committed Facilities, included in other expenses, were $15 million, $21 million and $27 million for the years ended December 31, 2018, 2017 and 2016, respectively. Total fees associated with the Committed Facilities, included in income (loss) from discontinued operations, net of income tax, were $305 million and $69 million for the years ended December 31, 2017 and 2016, respectively. See Note 3 for fees associated with termination of financing arrangements included within 2017 amounts. Information on the Committed Facilities at December 31, 2018 was as follows:

Account Party/Borrower(s)	Expiration	Maximum Capacity	Letters of Credit Issued	Drawdowns	Unused Commitments
			(In millions)		
MetLife Reinsurance Company of Vermont and MetLife, Inc.	December 2024 (1), (2)	$ 400	$ 385	$ —	$ 15
MetLife Reinsurance Company of Vermont and MetLife, Inc.	December 2037 (1), (3)	2,896	2,420	—	476
Total		$ 3,296	$ 2,805	$ —	$ 491

(1) MetLife, Inc. is a guarantor under the applicable facility.

(2) Capacity decreases in June 2022, December 2022, June 2023, December 2023 and December 2024 to $380 million, $360 million, $310 million, $260 million and $0, respectively.

(3) Capacity at December 31, 2018 of $2.6 billion increases periodically to a maximum of $2.9 billion in 2024, decreases periodically commencing in 2025 to $2.0 billion in 2037, and decreases to $0 at expiration in December 2037. Unused commitment of $476 million is based on maximum capacity. At December 31, 2018, Brighthouse is a beneficiary of $2.4 billion of letters of credit issued under this facility and, in consideration, Brighthouse reimburses MetLife, Inc. for a portion of the letter of credit fees. See Note 3.

In addition to the Committed Facilities, see also "— Term Loans" for information about the undrawn line of credit facility in the amount of $75 million.

13. Collateral Financing Arrangement

Information related to the collateral financing arrangement associated with the closed block (see Note 7) was as follows at:

	December 31,	
	2018	2017
	(In millions)	
Surplus notes outstanding (1)	$ 1,060	$ 1,121
Receivable from unaffiliated financial institution (1)	$ 139	$ 146
Pledged collateral (2)	$ 83	$ 97
Assets held in trust (2)	$ 1,370	$ 1,248

(1) Carrying value.

(2) Estimated fair value.

Interest expense on the collateral financing arrangement was $37 million, $30 million and $24 million for the years ended December 31, 2018, 2017 and 2016, respectively, which is included in other expenses.

In December 2007, MLIC reinsured a portion of its closed block liabilities to MetLife Reinsurance Company of Charleston ("MRC"), a wholly-owned subsidiary of MetLife, Inc. In connection with this transaction, MRC issued, to investors placed by an unaffiliated financial institution, $2.5 billion in aggregate principal amount of 35-year surplus notes to provide statutory reserve support for the assumed closed block liabilities. Interest on the surplus notes accrues at an annual rate of three-month LIBOR plus 0.55%, payable quarterly. The ability of MRC to make interest and principal payments on the surplus notes is contingent upon South Carolina regulatory approval.

Simultaneously with the issuance of the surplus notes, MetLife, Inc. entered into an agreement with the unaffiliated financial institution, under which MetLife, Inc. is entitled to the interest paid by MRC on the surplus notes of three-month LIBOR plus 0.55% in exchange for the payment of three-month LIBOR plus 1.12%, payable quarterly on such amount as adjusted, as described below. MetLife, Inc. may also be required to pledge collateral or make payments to the unaffiliated financial institution related to any decline in the estimated fair value of the surplus notes. Any such payments are accounted for as a receivable and included in other assets on the Company's consolidated balance sheets and do not reduce the principal amount outstanding of the surplus notes. Such payments, however, reduce the amount of interest payments due from MetLife, Inc. under the agreement. Any payment received from the unaffiliated financial institution reduces the receivable by an amount equal to such payment and also increases the amount of interest payments due from MetLife, Inc. under the agreement. In addition, the unaffiliated financial institution may be required to pledge collateral to MetLife, Inc. related to any increase in the estimated fair value of the surplus notes. MetLife, Inc. may also be required to make a payment to the unaffiliated financial institution in connection with any early termination of this agreement.

During 2018**,** 2017 and 2016 following regulatory approval, MRC repurchased $61 million, $153 million and $68 million, respectively, in aggregate principal amount of the surplus notes. Cumulatively, since December 2007, MRC repurchased $1.4 billion in aggregate principal amount of the surplus notes as of December 31, 2018. Payments made by the Company in 2018, 2017 and 2016 associated with the repurchases were exclusive of accrued interest on the surplus notes. In connection with the repurchases during 2018, 2017 and 2016, the Company received payments in the aggregate amount of $7 million, $20 million and $8 million, respectively, from the unaffiliated financial institution, which reduced the amount receivable from the unaffiliated financial institution by the same amounts. No other payments related to an increase or decrease in the estimated fair value of the surplus notes were made by MetLife, Inc. or received from the unaffiliated financial institution during 2018, 2017 or 2016.

A majority of the proceeds from the offering of the surplus notes was placed in a trust, which is consolidated by the Company, to support MRC's statutory obligations associated with the assumed closed block liabilities. During the year ended December 31, 2018, MRC transferred $97 million to the trust out of its general account. During the years ended December 31, 2017 and 2016, MRC transferred $3 million and $1 million, respectively, out of the trust to its general account. The assets are principally invested in fixed maturity securities AFS and are presented as such within the Company's consolidated balance sheets, with the related income included within net investment income on the Company's consolidated statements of operations.

14. Junior Subordinated Debt Securities

Outstanding Junior Subordinated Debt Securities

Outstanding junior subordinated debt securities and exchangeable surplus trust securities which are exchangeable for junior subordinated debt securities prior to redemption or repayment, were as follows:

						December 31,					
						2018			2017		
Issuer	Issue Date	Interest Rate (1)	Scheduled Redemption Date	Interest Rate Subsequent to Scheduled Redemption Date (2)	Final Maturity	Face Value	Unamortized Discount and Issuance Costs	Carrying Value	Face Value	Unamortized Discount and Issuance Costs	Carrying Value
						(In millions)					
MetLife, Inc.	December 2006	6.400%	December 2036	LIBOR + 2.205%	December 2066	$ 1,250	$ (19)	$ 1,231	$ 1,250	$ (21)	$ 1,229
MetLife Capital Trust IV (3)	December 2007	7.875%	December 2037	LIBOR + 3.960%	December 2067	700	(16)	684	700	(17)	683
MetLife, Inc. (4)	April 2008	9.250%	April 2038	LIBOR + 5.540%	April 2068	750	(11)	739	750	(11)	739
MetLife, Inc.	July 2009	10.750%	August 2039	LIBOR + 7.548%	August 2069	500	(7)	493	500	(7)	493
						$ 3,200	$ (53)	$ 3,147	$ 3,200	$ (56)	$ 3,144

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(1) Prior to the scheduled redemption date, interest is payable semiannually in arrears.

(2) In the event the securities are not redeemed on or before the scheduled redemption date, interest will accrue after such date at an annual rate of three-month LIBOR plus the indicated margin, payable quarterly in arrears.

(3) MetLife Capital Trust IV is a VIE which is consolidated on the financial statements of the Company. The securities issued by this entity are exchangeable surplus trust securities, which are exchangeable for a like amount of MetLife, Inc.'s junior subordinated debt securities on the scheduled redemption date, mandatorily under certain circumstances, and at any time upon MetLife, Inc. exercising its option to redeem the securities.

(4) On February 10, 2017, in connection with the Separation, MetLife, Inc. exchanged $750 million aggregate principal amount of its 9.250% Fixed-to-Floating Rate Junior Subordinated Debentures due 2068 for $750 million aggregate liquidation preference of the 9.250% Fixed-to-Floating Rate Exchangeable Surplus Trust Securities of MetLife Capital Trust X (the "Trust"). As a result of the exchange, MetLife, Inc. became the sole beneficial owner of the Trust, an SPE, which issued the exchangeable surplus trust securities to third-party investors. On March 23, 2017, MetLife, Inc. dissolved the Trust.

14. Junior Subordinated Debt Securities (continued)

In connection with each of the securities described above, MetLife, Inc. may redeem or may cause the redemption of the securities (i) in whole or in part, at any time on or after the date five years prior to the scheduled redemption date at their principal amount plus accrued and unpaid interest to, but excluding, the date of redemption, or (ii) in certain circumstances, in whole or in part, prior to the date five years prior to the scheduled redemption date at their principal amount plus accrued and unpaid interest to, but excluding, the date of redemption or, if greater, a make-whole price. MetLife, Inc. also has the right to, and in certain circumstances the requirement to, defer interest payments on the securities for a period up to 10 years. Interest compounds during such periods of deferral. If interest is deferred for more than five consecutive years, MetLife, Inc. is required to use proceeds from the sale of its common stock or warrants on common stock to satisfy this interest payment obligation. In connection with each of the securities described above, MetLife, Inc. entered into a separate replacement capital covenant ("RCC"). As part of each RCC, MetLife, Inc. agreed that it will not repay, redeem, or purchase the securities on or before a date 10 years prior to the final maturity date of each issuance, unless, subject to certain limitations, it has received cash proceeds during a specified period from the sale of specified replacement securities. Each RCC will terminate upon the occurrence of certain events, including an acceleration of the applicable securities due to the occurrence of an event of default. The RCCs are not intended for the benefit of holders of the securities and may not be enforced by them. Rather, each RCC is for the benefit of the holders of a designated series of MetLife, Inc.'s other indebtedness (the "Covered Debt"). Initially, the Covered Debt for each of the securities described above was MetLife, Inc.'s 5.700% senior notes due 2035 (the "5.700% Senior Notes"). As a result of the issuance of MetLife, Inc.'s 10.750% Fixed-to-Floating Rate Junior Subordinated Debentures due 2069 (the "10.750% JSDs"), the 10.750% JSDs became the Covered Debt with respect to, and in accordance with, the terms of the RCC relating to MetLife, Inc.'s 6.40% Fixed-to-Floating Rate Junior Subordinated Debentures due 2066. The 5.700% Senior Notes continue to be the Covered Debt with respect to, and in accordance with, the terms of the RCCs relating to each of MetLife Capital Trust IV's 7.875% Fixed-to-Floating Rate Exchangeable Surplus Trust Securities, MetLife, Inc.'s 9.250% Fixed-to-Floating Rate Junior Subordinated Debentures and the 10.750% JSDs. MetLife, Inc. also entered into a replacement capital obligation which will commence during the six-month period prior to the scheduled redemption date of each of the securities described above and under which MetLife, Inc. must use reasonable commercial efforts to raise replacement capital to permit repayment of the securities through the issuance of certain qualifying capital securities.

Interest expense on outstanding junior subordinated debt securities was $258 million for each of the years ended December 31, 2018, 2017 and 2016, which is included in other expenses.

15. Equity

Preferred Stock

Preferred stock authorized, issued and outstanding was as follows:

	December 31, 2018			December 31, 2017		
Series	Shares Authorized	Shares Issued	Shares Outstanding	Shares Authorized	Shares Issued	Shares Outstanding
Series A preferred stock	27,600,000	24,000,000	24,000,000	27,600,000	24,000,000	24,000,000
Series C preferred stock	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Series D preferred stock	500,000	500,000	500,000	—	—	—
Series E preferred stock	32,200	32,200	32,200	—	—	—
Series A Junior Participating Preferred Stock	10,000,000	—	—	10,000,000	—	—
Not designated	160,367,800	—	—	160,900,000	—	—
Total	200,000,000	26,032,200	26,032,200	200,000,000	25,500,000	25,500,000

In June 2018, MetLife, Inc. issued 32,200 shares of 5.625% Non-Cumulative Preferred Stock, Series E (the "Series E preferred stock") with a $0.01 par value per share and a liquidation preference of $25,000 per share, for aggregate net proceeds of $780 million. MetLife, Inc. deposited the Series E preferred stock under a deposit agreement with a depositary, which issued interests in fractional shares of the Series E preferred stock in the form of depositary shares ("Depositary Shares") evidenced by depositary receipts; each Depositary Share representing 1/1,000th interest in a share of the Series E preferred stock. In connection with the offering of the Depositary Shares, MetLife, Inc. incurred approximately $25 million of issuance costs which have been recorded as a reduction of additional paid-in capital.

15. Equity (continued)

In March 2018, MetLife, Inc. issued 500,000 shares of 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D (the "Series D preferred stock") with a $0.01 par value per share and a liquidation preference of $1,000 per share, for aggregate net proceeds of $494 million. In connection with the offering of the Series D preferred stock, MetLife, Inc. incurred $6 million of issuance costs which have been recorded as a reduction of additional paid-in capital.

The outstanding preferred stock ranks senior to MetLife, Inc.'s common stock with respect to the payment of dividends and distributions upon liquidation, dissolution or winding-up. Holders of the outstanding preferred stock are entitled to receive dividend payments only when, as and if declared by MetLife, Inc.'s Board of Directors or a duly authorized committee thereof. Dividends on the preferred stock are not cumulative or mandatory. Accordingly, if dividends are not declared on the preferred stock of the applicable series for any dividend period, then any accrued dividends for that dividend period will cease to accrue and be payable. If a dividend is not declared before the dividend payment date for any such dividend period, MetLife, Inc. will have no obligation to pay dividends accrued for such dividend period whether or not dividends are declared for any future period. No dividends may be paid or declared on MetLife, Inc.'s common stock (or any other securities ranking junior to the preferred stock) and MetLife, Inc. may not purchase, redeem, or otherwise acquire its common stock (or other such junior stock) unless the full dividends for the latest completed dividend period on all outstanding shares of preferred stock, and any parity stock, have been declared and paid or provided for.

The table below presents the dividend rates of MetLife, Inc.'s preferred stock outstanding at December 31, 2018:

Series	Per Annum Dividend Rate
A	Three-month LIBOR + 1.00%, with floor of 4.00%, payable quarterly in March, June, September and December
C	5.250% from issuance date to, but excluding, June 15, 2020, payable semiannually in June and December; three-month LIBOR + 3.575%, payable quarterly in March, June, September and December, thereafter
D	5.875% from issuance date to, but excluding, March 15, 2028, payable semiannually in March and September commencing in September 2018; three-month LIBOR + 2.959% payable quarterly in March, June, September and December, thereafter
E	5.625% from issuance date, payable quarterly in March, June, September and December, commencing in September 2018

In the table above, dividends on each series of preferred stock are payable in arrears for the periods specified, if declared.

MetLife, Inc. is prohibited from declaring dividends on the Floating Rate Non-Cumulative Preferred Stock, Series A (the "Series A preferred stock") if it fails to meet specified capital adequacy, net income and stockholders' equity levels. See "— Dividend Restrictions — MetLife, Inc."

Holders of the preferred stock do not have voting rights except in certain circumstances, including where the dividends have not been paid for an equivalent of six or more dividend payment periods whether or not those periods are consecutive. Under such circumstances, the holders of the preferred stock have certain voting rights with respect to members of the Board of Directors of MetLife, Inc.

The preferred stock is not subject to any mandatory redemption, sinking fund, retirement fund, purchase fund or similar provisions. The Series A preferred stock is redeemable at MetLife, Inc.'s option in whole or in part, at a redemption price of $25 per share of preferred stock, plus declared and unpaid dividends.

MetLife, Inc. may, at its option, redeem the 5.25% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C (the "Series C preferred stock"), (i) in whole but not in part, at any time prior to June 15, 2020, within 90 days after the occurrence of a "regulatory capital event," and (ii) in whole or in part, from time to time, on or after June 15, 2020, in each case, at a redemption price equal to $1,000 per Series C preferred share, plus an amount equal to any dividends per share that have accrued but not been declared and paid for the then-current dividend period to, but excluding, such redemption date. A "regulatory capital event" could occur as a result of a change or proposed change in capital adequacy rules (or the interpretation or application thereof) that would apply to MetLife, Inc. from rules (or the interpretation or application thereof) in effect with respect to bank holding companies as of June 1, 2015 that would create a more than insubstantial risk, as determined by MetLife, Inc., that the Series C preferred stock would not be treated as "Tier 1 Capital" or as capital with attributes similar to those of Tier 1 Capital.

15. Equity (continued)

MetLife, Inc. may, at its option, redeem the Series D preferred stock, (i) in whole but not in part at any time prior to March 15, 2028, within 90 days after the occurrence of a "rating agency event," at a redemption price equal to $1,020 per share of Series D preferred stock, plus an amount equal to any dividends per share that have accrued but have not been declared and paid for the then-current dividend period to, but excluding, the redemption date; (ii) in whole but not in part, at any time prior to March 15, 2028, within 90 days after the occurrence of a "regulatory capital event"; and (iii) in whole or in part, from time to time, on or after March 15, 2028, in the case of (ii) or (iii), at a redemption price equal to $1,000 per share of Series D preferred stock, plus an amount equal to any dividends per share that have accrued but not been declared and paid for the then-current dividend period to, but excluding, such redemption date. MetLife, Inc. may, at its option, redeem the Series E preferred stock, (i) in whole but not in part at any time prior to June 15, 2023, within 90 days after the occurrence of a "rating agency event," at a redemption price equal to $25,500 per share of Series E preferred stock, plus an amount equal to any dividends per share that have accrued but have not been declared and paid for the then-current dividend period to, but excluding, the redemption date; (ii) in whole but not in part, at any time prior to June 15, 2023, within 90 days after the occurrence of a "regulatory capital event"; and (iii) in whole or in part, from time to time, on or after June 15, 2023, in the case of (ii) or (iii), at a redemption price equal to $25,000 per share of Series E preferred stock, plus an amount equal to any dividends per share that have accrued but not been declared and paid for the then-current dividend period to, but excluding, such redemption date. A "rating agency event" means that any nationally recognized statistical rating organization that then publishes a rating for MetLife, Inc. amends, clarifies or changes the criteria used to assign equity credit to securities like the Series D preferred stock or Series E preferred stock, which results in the lowering of the equity credit assigned to the Series D preferred stock or Series E preferred stock, as applicable, or shortens the length of time that the Series D preferred stock or Series E preferred stock, as applicable, is assigned a particular level of equity credit. A "regulatory capital event" could occur as a result of a change or proposed change in capital adequacy rules (or the interpretation or application thereof) of any capital regulator, including but not limited to the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"), the Federal Insurance Office, the National Association of Insurance Commissioners ("NAIC") or any state insurance regulator as may then have group-wide oversight of MetLife, Inc.'s regulatory capital, from rules (or the interpretation or application thereof) in effect as of March 22, 2018, in the case of the Series D preferred stock, or June 4, 2018, in the case of the Series E preferred stock, that would create a more than insubstantial risk, as determined by MetLife, Inc., that the Series D preferred stock or the Series E preferred stock, as applicable, would not be treated as "Tier 1 capital" or as capital with attributes similar to those of Tier 1 capital, except that a "regulatory capital event" will not include a change or proposed change (or the interpretation or application thereof) that would result in the adoption of any criteria substantially the same as the criteria in the capital adequacy rules of the Federal Reserve Board applicable to bank holding companies as of March 22, 2018, in the case of the Series D preferred stock, or June 4, 2018, in the case of the Series E preferred stock.

On December 31, 2018, RCCs related to the Series A preferred stock and the Series C preferred stock expired.

15. Equity (continued)

The declaration, record and payment dates, as well as per share and aggregate dividend amounts, for MetLife, Inc.'s preferred stock were as follows for the years ended December 31, 2018, 2017 and 2016:

			Preferred Stock Dividend							
			Series A		Series C		Series D		Series E	
Declaration Date	Record Date	Payment Date	Per Share	Aggregate	Per Share	Aggregate	Per Share	Aggregate	Per Share	Aggregate
			(In millions, except per share data)							
Year Ended December 31, 2018										
November 15, 2018	November 30, 2018	December 17, 2018	$ 0.253	$ 6	$ 26.250	$ 40	$ —	$ —	$ 351.563	$ 11
August 15, 2018	August 31, 2018	September 17, 2018	0.256	6	—	—	28.233	14	394.531	12
May 15, 2018	May 31, 2018	June 15, 2018	0.256	7	26.250	39	—	—	—	—
March 5, 2018	February 28, 2018	March 15, 2018	0.250	6	—	—	—	—	—	—
Total			$ 1.015	$ 25	$ 52.500	$ 79	$ 28.233	$ 14	$ 746.094	$ 23
Year Ended December 31, 2017										
November 15, 2017	November 30, 2017	December 15, 2017	$ 0.253	$ 6	$ 26.250	$ 39	$ —	$ —	$ —	$ —
August 15, 2017	August 31, 2017	September 15, 2017	0.256	6	—	—	—	—	—	—
May 15, 2017	May 31, 2017	June 15, 2017	0.256	7	26.250	39	—	—	—	—
March 6, 2017	February 28, 2017	March 15, 2017	0.250	6	—	—	—	—	—	—
Total			$ 1.015	$ 25	$ 52.500	$ 78	$ —	$ —	$ —	$ —
Year Ended December 31, 2016										
November 15, 2016	November 30, 2016	December 15, 2016	$ 0.253	$ 6	$ 26.250	$ 39	$ —	$ —	$ —	$ —
August 15, 2016	August 31, 2016	September 15, 2016	0.256	6	—	—	—	—	—	—
May 16, 2016	May 31, 2016	June 15, 2016	0.256	7	26.250	39	—	—	—	—
March 7, 2016	February 29, 2016	March 15, 2016	0.253	6	—	—	—	—	—	—
Total			$ 1.018	$ 25	$ 52.500	$ 78	$ —	$ —	$ —	$ —

See Note 22 for information on subsequent preferred stock dividends declared.

Common Stock

Issuances

During the years ended December 31, 2018, 2017 and 2016, MetLife, Inc. issued 3,114,141 shares, 4,680,116 shares and 4,439,219 shares of its common stock for $108 million, $158 million and $166 million, respectively, in connection with stock option exercises and other stock-based awards. There were no shares of common stock issued from treasury stock for each of the years ended December 31, 2018, 2017 and 2016.

Repurchase Authorizations

In November 2016, MetLife, Inc. announced that its Board of Directors authorized $3.0 billion of common stock repurchases in addition to previously authorized repurchases. In November 2017, MetLife, Inc. announced that its Board of Directors authorized $2.0 billion of common stock repurchases. In May 2018 and November 2018, MetLife, Inc. announced that its Board of Directors authorized $1.5 billion and $2.0 billion of common stock repurchases, respectively.

During the years ended December 31, 2018, 2017 and 2016, MetLife, Inc. repurchased 88,029,138 shares, 56,599,540 shares and 6,948,739 shares under these repurchase authorizations for $4.0 billion, $2.9 billion, and $372 million, respectively. At December 31, 2018, MetLife, Inc. had $1.3 billion remaining under its common stock repurchase authorization. See Note 22 for information on subsequent common stock repurchases.

Under these authorizations, MetLife, Inc. may purchase its common stock from the MetLife Policyholder Trust, in the open market (including pursuant to the terms of a pre-set trading plan meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934 ("Exchange Act")), and in privately negotiated transactions. Common stock repurchases are subject to the discretion of MetLife, Inc.'s Board of Directors and will depend upon the Company's capital position, liquidity, financial strength and credit ratings, general market conditions, the market price of MetLife, Inc.'s common stock compared to management's assessment of the stock's underlying value, applicable regulatory approvals, and other legal and accounting factors.

15. Equity (continued)

Dividends

The declaration, record and payment dates, as well as per share and aggregate dividend amounts, for MetLife, Inc.'s common stock were as follows for the years ended December 31, 2018, 2017 and 2016:

Declaration Date	Record Date	Payment Date	Dividend Per Share	Dividend Aggregate
			(In millions, except per share data)	
Year Ended December 31, 2018				
October 23, 2018	November 6, 2018	December 13, 2018	$ 0.420	$ 415
July 6, 2018	August 6, 2018	September 13, 2018	0.420	419
April 24, 2018	May 7, 2018	June 13, 2018	0.420	428
January 5, 2018	February 5, 2018	March 13, 2018	0.400	416
Total			$ 1.660	$ 1,678
Year Ended December 31, 2017				
October 24, 2017	November 6, 2017	December 13, 2017	$ 0.400	$ 422
July 7, 2017	August 7, 2017	September 13, 2017	0.400	427
April 25, 2017	May 8, 2017	June 13, 2017	0.400	431
January 6, 2017	February 6, 2017	March 13, 2017	0.400	437
Total			$ 1.600	$ 1,717
Year Ended December 31, 2016				
October 25, 2016	November 7, 2016	December 13, 2016	$ 0.400	$ 441
July 7, 2016	August 8, 2016	September 13, 2016	0.400	441
April 26, 2016	May 9, 2016	June 13, 2016	0.400	441
January 6, 2016	February 5, 2016	March 14, 2016	0.375	413
Total			$ 1.575	$ 1,736

See Note 22 for information on subsequent common stock dividends declared.

The funding of the cash dividends and operating expenses of MetLife, Inc. is primarily provided by cash dividends from MetLife, Inc.'s insurance subsidiaries. The statutory capital and surplus, or net assets, of MetLife, Inc.'s insurance subsidiaries are subject to regulatory restrictions except to the extent that dividends are allowed to be paid in a given year without prior regulatory approval. Dividends exceeding these limitations can generally be made subject to regulatory approval. The nature and amount of these dividend restrictions, as well as the statutory capital and surplus of MetLife, Inc.'s U.S. insurance subsidiaries, are disclosed in "— Statutory Equity and Income" and "— Dividend Restrictions — Insurance Operations." MetLife, Inc.'s principal non-U.S. insurance operations are branches or subsidiaries of American Life Insurance Company ("American Life"), a U.S. insurance subsidiary of the Company. In addition, the payment of dividends by MetLife, Inc. to its shareholders is also subject to restrictions. See "— Dividend Restrictions — MetLife, Inc."

Stock-Based Compensation Plans

Plans for Employees and Agents

Under the MetLife, Inc. 2015 Stock and Incentive Compensation Plan (the "2015 Stock Plan"), MetLife, Inc. may grant awards to employees and agents in the form of Stock Options, Stock Appreciation Rights, Performance Shares or Performance Share Units, Restricted Stock or Restricted Stock Units, Cash-Based Awards and Stock-Based Awards (each, as applicable, as defined in the 2015 Stock Plan with reference to shares of MetLife, Inc. common stock ("Shares")). Awards under the 2015 Stock Plan and its predecessor plan, the MetLife, Inc. 2005 Stock and Incentive Compensation Plan (the "2005 Stock Plan") were outstanding at December 31, 2018. MetLife, Inc. granted all awards to employees and agents in 2018 under the 2015 Stock Plan.

The aggregate number of Shares authorized for issuance under the 2015 Stock Plan at December 31, 2018 was 37,344,024.

15. Equity (continued)

With the exception of Performance Shares MetLife, Inc. granted in 2013 through 2018, which are re-measured quarterly, MetLife recognizes compensation expense related to awards under the 2005 Stock Plan or 2015 Stock Plan based on the number of awards it expects to vest, which represents the awards granted less expected forfeitures over the life of the award, as estimated at the date of grant. Unless MetLife observes a material deviation from the assumed forfeiture rate during the term in which the awards are expensed, MetLife recognizes any adjustment necessary to reflect differences in actual experience in the period the award becomes payable or exercisable.

Compensation expense related to awards under the 2005 Stock Plan principally relates to the issuance of Stock Options. Under the 2015 Stock Plan, compensation expense principally relates to Stock Options, Unit Options, Performance Shares, Performance Units, Restricted Stock Units and Restricted Units. MetLife, Inc. granted the majority of each year's awards under the 2005 Stock Plan and 2015 Stock Plan in the first quarter of the year.

Awards that have become payable in Shares but the issuance of which has been deferred ("Deferred Shares"), payable to employees or agents related to awards under all plans equaled 1,188,792 Shares at December 31, 2018.

MetLife granted cash-settled awards based in whole or in part on the price of Shares or changes in the price of Shares ("Phantom Stock-Based Awards") under the MetLife, Inc. International Unit Option Incentive Plan, the MetLife International Performance Unit Incentive Plan, and the MetLife International Restricted Unit Incentive Plan prior to 2015, and under the 2015 Stock Plan in 2015 and later.

Plans for Non-Management Directors

Under the MetLife, Inc. 2015 Non-Management Director Stock Compensation Plan (the "2015 Director Stock Plan"), MetLife, Inc. may grant non-management Directors of MetLife, Inc. awards in the form of nonqualified Stock Options, Stock Appreciation Rights, Restricted Stock or Restricted Stock Units, or Stock-Based Awards (each, as applicable, as defined in the 2015 Director Stock Plan with reference to Shares).

The only awards MetLife, Inc. granted under the 2015 Director Stock Plan and its predecessor plan, the MetLife, Inc. 2005 Non-Management Director Stock Compensation Plan (the "2005 Director Stock Plan"), through December 31, 2018 were Stock-Based Awards that vested immediately. As a result, no awards under the 2005 Director Stock Plan or 2015 Director Stock Plan remained outstanding at December 31, 2018.

The aggregate number of Shares authorized for issuance under the 2015 Director Stock Plan at December 31, 2018 was 1,660,961.

MetLife recognizes compensation expense related to awards under the 2015 Director Stock Plan based on the number of Shares awarded. MetLife, Inc. granted the majority of the awards in 2015 and 2016 under the 2015 Director Stock Plan in the second quarter of each year.

Deferred Shares payable to Directors related to awards under the 2005 Director Stock Plan, 2015 Director Stock Plan, or earlier applicable plans equaled 246,391 Shares at December 31, 2018.

Compensation Expense Related to Stock-Based Compensation

The components of compensation expense related to stock-based compensation includes compensation expense related to Phantom Stock-Based Awards, and excludes the insignificant compensation expense related to the 2015 Director Stock Plan. Those components were:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Stock Options and Unit Options	$ 6	$ 8	$ 9
Performance Shares and Performance Units (1)	23	62	75
Restricted Stock Units and Restricted Units	57	58	63
Total compensation expense	$ 86	$ 128	$ 147
Income tax benefit	$ 18	$ 45	$ 51

15. Equity (continued)

(1) The Company may further adjust the number of Performance Shares it expects to vest, and the related compensation expense, if management changes its estimate of the most likely final performance factor.

The following table presents the total unrecognized compensation expense related to stock-based compensation and the expected weighted average period over which these expenses will be recognized at:

	December 31, 2018	
	Expense	Weighted Average Period
	(In millions)	(Years)
Stock Options	$ 3	1.12
Performance Shares	$ 21	1.72
Restricted Stock Units	$ 32	1.27

Equity Awards

Stock Options

Stock Options are the contingent right of award holders to purchase Shares at a stated price for a limited time. All Stock Options have an exercise price equal to the closing price of a Share reported on the New York Stock Exchange ("NYSE") on the date of grant, and have a maximum term of 10 years. The majority of Stock Options MetLife, Inc. has granted have become or will become exercisable at a rate of one-third of each award on each of the first three anniversaries of the grant date. Other Stock Options have become or will become exercisable on the third anniversary of the grant date. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances.

A summary of the activity related to Stock Options was as follows:

	Shares Under Option	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (1)
			(Years)	(In millions)
Outstanding at January 1, 2018	16,009,754	$ 38.77	3.54	$ 198
Granted	523,946	$ 45.50		
Exercised	(1,611,987)	$ 33.68		
Expired (2)	(2,488,045)	$ 53.63		
Forfeited (3)	(78,374)	$ 41.90		
Outstanding at December 31, 2018	12,355,294	$ 36.70	3.56	$ 66
Vested and expected to vest at December 31, 2018	12,343,714	$ 36.70	3.55	$ 66
Exercisable at December 31, 2018	11,116,386	$ 35.96	3.02	$ 64

(1) The intrinsic value of each Stock Option is the closing price on a particular date less the exercise price of the Stock Option, so long as the difference is greater than zero. The aggregate intrinsic value of all outstanding Stock Options is computed using the closing Share price on December 31, 2018 of $41.06 and December 31, 2017 of $50.56, as applicable.

(2) Expired options were exercisable, but unexercised, as of their expiration date.

(3) Forfeited awards were either (a) unvested or unexercisable at the end of the awardholder's employment, where the awardholder did not meet the criteria for post-employment award continuation; or (b) held by awardholders the Company terminated from employment for cause as defined in the terms of the awards.

15. Equity (continued)

MetLife estimates the fair value of Stock Options on the date of grant using a binomial lattice model. The significant assumptions the Company uses in its binomial lattice model include: expected volatility of the price of Shares; risk-free rate of return; dividend yield on Shares; exercise multiple; and the post-vesting termination rate.

MetLife bases expected volatility on an analysis of historical prices of Shares and call options on Shares traded on the open market. The Company uses a weighted-average of the implied volatility for publicly-traded call options with the longest remaining maturity nearest to the money as of each valuation date and the historical volatility, calculated using monthly closing prices of Shares. The Company chose a monthly measurement interval for historical volatility as this interval reflects the Company's view that employee option exercise decisions are based on longer-term trends in the price of the underlying Shares rather than on daily price movements.

The Company's binomial lattice model incorporates different risk-free rates based on the imputed forward rates for U.S. Treasury Strips for each year over the contractual term of the option. The table below presents the full range of rates that were used for options granted during the respective periods.

The Company determines dividend yield based on historical dividend distributions compared to the price of the underlying Shares as of the valuation date and held constant over the life of the Stock Option.

The Company's binomial lattice model incorporates the term of the Stock Options, expected exercise behavior and a post-vesting termination rate, or the rate at which vested options are exercised or expire prematurely due to termination of employment. From these factors, the model derives an expected life of the Stock Option. The model's exercise behavior is a multiple that reflects the ratio of stock price at the time of exercise over the exercise price of the Stock Option at the time the model expects holders to exercise. The model derives the exercise multiple from actual exercise activity. The model determines the post-vesting termination rate from actual exercise experience and expiration activity under the Incentive Plans.

The following table presents the weighted average assumptions, with the exception of risk-free rate (which is expressed as a range), that the model uses to determine the fair value of unexercised Stock Options:

	Years Ended December 31,		
	2018	2017	2016
Dividend yield	3.52%	3.05%	3.90%
Risk-free rate of return	2.02% - 3.40%	0.94% - 3.22%	0.62% - 2.85%
Expected volatility	34.18%	34.19%	33.58%
Exercise multiple	1.43	1.43	1.43
Post-vesting termination rate	3.77%	2.94%	2.58%
Contractual term (years)	10	10	10
Expected life (years)	6	6	7
Weighted average exercise price of stock options granted	$45.50	$46.85	$34.33
Weighted average fair value of stock options granted	$11.87	$12.36	$8.27

The following table presents a summary of Stock Option exercise activity:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Total intrinsic value of stock options exercised	$ 24	$ 59	$ 42
Cash received from exercise of stock options	$ 54	$ 116	$ 84
Income tax benefit realized from stock options exercised	$ 5	$ 20	$ 15

15. Equity (continued)

Performance Shares

Performance Shares are units that, if they vest, are multiplied by a performance factor to produce a number of final Performance Shares which are payable in Shares. MetLife accounts for Performance Shares as equity awards. MetLife, Inc. does not credit Performance Shares with dividend-equivalents for dividends paid on Shares. Performance Share awards normally vest in their entirety at the end of the three-year performance period. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances.

For awards granted for the 2016 – 2018 and later performance periods in progress through December 31, 2018, the vested Performance Shares will be multiplied by a performance factor of 0% to 175% that the MetLife, Inc. Compensation Committee will determine in its discretion (subject to MetLife, Inc. meeting threshold performance goals related to its adjusted income or total shareholder return). In doing so, the Compensation Committee may consider MetLife, Inc.'s total shareholder return relative to the performance of its competitors and adjusted return on MetLife, Inc.'s common stockholders' equity relative to its financial plan. MetLife estimates the fair value of Performance Shares each quarter until they become payable. The performance factor for the 2015 - 2017 performance period was 46.3%.

Restricted Stock Units

Restricted Stock Units are units that, if they vest, are payable in an equal number of Shares. MetLife accounts for Restricted Stock Units as equity awards. MetLife, Inc. does not credit Restricted Stock Units with dividend-equivalents for dividends paid on Shares. Accordingly, the estimated fair value of Restricted Stock Units is based upon the closing price of Shares on the date of grant, reduced by the present value of estimated dividends to be paid on that stock.

The majority of Restricted Stock Units normally vest in thirds on or shortly after the first three anniversaries of their grant date. Other Restricted Stock Units normally vest in their entirety on the third or later anniversary of their grant date. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances.

The following table presents a summary of Performance Share and Restricted Stock Unit activity:

	Performance Shares		Restricted Stock Units	
	Shares	Weighted Average Fair Value (1)	Units	Weighted Average Fair Value (1)
Outstanding at January 1, 2018	4,033,760	$ 46.02	3,304,377	$ 37.17
Granted	1,405,903	$ 34.31	1,446,289	$ 40.00
Forfeited (2)	(201,146)	$ 40.88	(201,914)	$ 38.79
Payable (3)	(1,194,283)	$ 46.34	(1,602,483)	$ 37.04
Outstanding at December 31, 2018	4,044,234	$ 34.18	2,946,269	$ 38.52
Vested and expected to vest at December 31, 2018	3,984,022	$ 34.18	2,903,433	$ 38.49

(1) Values for awards outstanding at January 1, 2018, represent weighted average number of awards multiplied by the fair value per Share at December 31, 2017. Otherwise, all values represent weighted average of number of awards multiplied by the fair value per Share at December 31, 2018. Fair value of Restricted Stock Units on December 31, 2018 was equal to Grant Date fair value.

(2) Forfeited awards were either (a) unvested or unexercisable at the end of the awardholder's employment, where the awardholder did not meet the criteria for post-employment award continuation; or (b) held by awardholders the Company terminated from employment for cause as defined in the terms of the awards.

(3) Includes both Shares paid and Deferred Shares for later payment.

15. Equity (continued)

Performance Share amounts above represent aggregate awards at target, and do not reflect potential increases or decreases that may result from the performance factor. At December 31, 2018, the performance period for the 2016 — 2018 Performance Share grants was completed, but the performance factor had not yet been determined. Included in the immediately preceding table are 1,594,846 outstanding Performance Shares to which the 2016 — 2018 performance factor will be applied.

Liability Awards (Phantom Stock-Based Awards)

Certain MetLife subsidiaries have a liability for Phantom Stock-Based Awards in the form of Unit Options, Performance Units, and/or Restricted Units. These Share-based cash settled awards are recorded as liabilities until MetLife makes payment. The fair value of unsettled or unvested liability awards is re-measured at the end of each reporting period based on the change in fair value of one Share. The liability and corresponding expense are adjusted accordingly until the award is settled.

Unit Options

Unit Options are the contingent right of award holders to receive a cash payment equal to the closing price of a Share on the exercise date, less the closing price on the grant date, if the difference is greater than zero, for a limited time. All Unit Options have an exercise price equal to the closing price of a Share reported on the NYSE on the date of grant, and have a maximum term of 10 years. The majority of Unit Options have become or will become eligible for exercise at a rate of one-third of each award on each of the first three anniversaries of the grant date. Other Unit Options have become or will become eligible for exercise on the third anniversary of the grant date. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances.

Performance Units

Performance Units are units that, if they vest, are multiplied by a performance factor to produce a number of final Performance Units which are payable in cash equal to the closing price of a Share on a date following the last day of the three-year performance period. Performance Units are accounted for as liability awards. MetLife, Inc. does not credit them with dividend-equivalents for dividends paid on Shares. Accordingly, the estimated fair value of Performance Units is based upon the closing price of a Share on the date of grant, reduced by the present value of estimated dividends to be paid on that stock during the performance period.

See "— Equity Awards — Performance Shares" for a discussion of the Performance Shares vesting period and performance factor calculation, which are also used for Performance Units.

Restricted Units

Restricted Units are units that, if they vest, are payable in cash equal to the closing price of a Share on the last day of the restriction period. The majority of Restricted Units normally vest in thirds on or shortly after the first three anniversaries of their grant date. Other Restricted Units normally vest in their entirety on the third or later anniversary of their grant date. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances. Restricted Units are accounted for as liability awards. MetLife, Inc. does not credit Restricted Units with dividend-equivalents for dividends paid on Shares. Accordingly, the estimated fair value of Restricted Units is based upon the closing price of a Share on the date of grant, reduced by the present value of estimated dividends to be paid on that stock during the performance period.

15. Equity (continued)

The following table presents a summary of Liability Awards activity:

	Unit Options	Performance Units	Restricted Units
Outstanding at January 1, 2018	681,012	688,229	779,076
Granted	37,904	235,076	392,549
Exercised	(54,361)	—	—
Expired (1)	(118,107)	—	—
Forfeited (2)	—	(142,621)	(140,321)
Paid	—	(186,085)	(362,202)
Outstanding at December 31, 2018	546,448	594,599	669,102
Vested and expected to vest at December 31, 2018	539,165	577,005	651,263

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(1) Expired options were exercisable, but unexercised, as of their expiration date.

(2) Forfeited awards were either (a) unvested or unexercisable at the end of the awardholder's employment, where the awardholder did not meet the criteria for post-employment award continuation; or (b) held by awardholders the Company terminated from employment for cause as defined in the terms of the awards.

Performance Units amounts above represent aggregate awards at target, and do not reflect potential increases or decreases that may result from the performance factor. At December 31, 2018, the performance period for the 2016 - 2018 Performance Unit grants was completed, but the performance factor had not yet been determined. Included in the immediately preceding table are 212,464 outstanding Performance Units to which the 2016 - 2018 performance factor will be applied.

Statutory Equity and Income

The states of domicile of MetLife, Inc.'s U.S. insurance subsidiaries each impose risk-based capital ("RBC") requirements that were developed by the NAIC. American Life does not write business in Delaware or any other U.S. state and, as such, is exempt from RBC requirements by Delaware law. Regulatory compliance is determined by a ratio of a company's total adjusted capital, calculated in the manner prescribed by the NAIC ("TAC") to its authorized control level RBC, calculated in the manner prescribed by the NAIC ("ACL RBC"), based on the statutory-based filed financial statements. Companies below specific trigger levels or ratios are classified by their respective levels, each of which requires specified corrective action. The minimum level of TAC before corrective action commences is twice ACL RBC ("Company Action Level RBC"). While not required by or filed with insurance regulators, the Company also calculates an internally defined combined RBC ratio ("Statement-Based Combined RBC Ratio"), which is determined by dividing the sum of TAC for MetLife, Inc.'s principal U.S. insurance subsidiaries, excluding American Life, by the sum of Company Action Level RBC for such subsidiaries. The Company's Statement-Based Combined RBC Ratio was in excess of 360% and in excess of 390% at December 31, 2018 and 2017, respectively. In addition, all non-exempted U.S. insurance subsidiaries individually exceeded Company Action Level RBC for all periods presented.

MetLife, Inc.'s foreign insurance operations are regulated by applicable authorities of the jurisdictions in which each entity operates and are subject to minimum capital and solvency requirements in those jurisdictions before corrective action commences. At December 31, 2018 and 2017, the adjusted capital of American Life's insurance subsidiary in Japan, the Company's largest foreign insurance operation, was in excess of four times the 200% solvency margin ratio that would require corrective action. Excluding Japan, the aggregate required capital and surplus of the Company's other foreign insurance operations was $4.1 billion and the aggregate actual regulatory capital and surplus of such operations was $11.1 billion as of the date of the most recent required capital adequacy calculation for each jurisdiction. The Company's foreign insurance operations exceeded the minimum capital and solvency requirements as of the date of the most recent fiscal year-end capital adequacy calculation for each jurisdiction, with immaterial exceptions.

15. Equity (continued)

MetLife, Inc.'s insurance subsidiaries prepare statutory-basis financial statements in accordance with statutory accounting practices prescribed or permitted by the insurance department of the state of domicile or applicable foreign jurisdiction. The NAIC has adopted the Codification of Statutory Accounting Principles ("Statutory Codification"). Statutory Codification is intended to standardize regulatory accounting and reporting to state insurance departments. However, statutory accounting principles continue to be established by individual state laws and permitted practices. Modifications by the various state insurance departments may impact the effect of Statutory Codification on the statutory capital and surplus of MetLife, Inc.'s U.S. insurance subsidiaries.

Statutory accounting principles differ from GAAP primarily by charging policy acquisition costs to expense as incurred, establishing future policy benefit liabilities using different actuarial assumptions, reporting surplus notes as surplus instead of debt and valuing securities on a different basis.

In addition, certain assets are not admitted under statutory accounting principles and are charged directly to surplus. The most significant assets not admitted by the Company are net deferred income tax assets resulting from temporary differences between statutory accounting principles basis and tax basis not expected to reverse and become recoverable within three years. Further, statutory accounting principles do not give recognition to purchase accounting adjustments. MetLife, Inc.'s U.S. insurance subsidiaries have no material state prescribed accounting practices, except as described below.

New York has adopted certain prescribed accounting practices, primarily consisting of the continuous Commissioners' Annuity Reserve Valuation Method, which impacts deferred annuities, and the New York Special Consideration Letter, which mandates certain assumptions in asset adequacy testing. The collective impact of these prescribed accounting practices decreased the statutory capital and surplus of MLIC for the years ended December 31, 2018 and 2017 by $1.2 billion and $1.1 billion, respectively, compared to what capital and surplus would have been had it been measured under NAIC guidance.

American Life calculates its policyholder reserves on insurance written in each foreign jurisdiction in accordance with the reserve standards required by such jurisdiction. Additionally, American Life's insurance subsidiaries are valued based on each respective subsidiary's underlying local statutory equity, adjusted in a manner consistent with the reporting prescribed for its branch operations. The prescribed practice exempts American Life from calculating and disclosing the impact to its statutory capital and surplus. The tables below present amounts from MetLife, Inc.'s U.S. insurance subsidiaries, which are derived from the statutory-basis financial statements as filed with the insurance regulators.

Statutory net income (loss) was as follows:

		Years Ended December 31,		
Company	**State of Domicile**	**2018**	**2017**	**2016**
			(In millions)	
Metropolitan Life Insurance Company (1)	New York	$ 3,656	$ 1,982	$ 3,444
American Life Insurance Company	Delaware	$ 2,086	$ 3,077	$ 341
Brighthouse Life Insurance Company (2)	Delaware	N/A	N/A	$ 1,186
Metropolitan Property and Casualty Insurance Company	Rhode Island	$ 345	$ 197	$ 171
Metropolitan Tower Life Insurance Company (3)	Nebraska	$ 76	$ 164	$ 8
New England Life Insurance Company (2)	Massachusetts	N/A	N/A	$ 109
Other (4)	Various	$ 16	$ 11	$ (70)

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(1) In December 2016, MLIC transferred all of the issued and outstanding shares of the common stock of each of New England Life Insurance Company ("NELICO") and General American Life Insurance Company ("GALIC") to MetLife, Inc., in the form of a non-cash extraordinary dividend.

(2) In April 2017, in connection with the Separation, MetLife, Inc. contributed all of the issued and outstanding shares of common stock of each of Brighthouse Insurance and NELICO to Brighthouse Holdings, LLC. As a result of the Separation, Brighthouse Insurance and NELICO ceased to be subsidiaries of MetLife, Inc.

(3) In April 2018, Metropolitan Tower Life Insurance Company ("MTL") merged with GALIC ("MTL Merger"). The surviving entity of the merger was MTL, which re-domesticated from Delaware to Nebraska immediately prior to the merger. For the year ended December 31, 2016, MTL's statutory net income (loss) is as filed with the Delaware Department of Insurance and accordingly, does not include GALIC's statutory net income (loss) of ($2) million.

15. Equity (continued)

(4) In April 2017, in connection with the Separation, MetLife, Inc. contributed all of the issued and outstanding shares of Brighthouse Life Insurance Company of NY ("Brighthouse NY") to Brighthouse Holdings, LLC. As a result of the Separation, Brighthouse NY ceased to be a subsidiary of MetLife, Inc. For the year ended December 31, 2016, statutory net income (loss) of Brighthouse NY was ($87) million.

Statutory capital and surplus was as follows at:

Company	December 31, 2018	December 31, 2017
	(In millions)	
Metropolitan Life Insurance Company	$ 11,098	$ 10,384
American Life Insurance Company	$ 4,921	$ 6,548
Metropolitan Property and Casualty Insurance Company	$ 2,322	$ 2,266
Metropolitan Tower Life Insurance Company (1)	$ 1,549	$ 1,751
Other	$ 106	$ 100

(1) See discussion of MTL Merger above.

The Company's U.S. captive life reinsurance subsidiaries, which reinsure risks including the closed block, level premium term life and ULSG assumed from other MetLife subsidiaries, have no state prescribed accounting practices, except for MRV.

MRV, with the explicit permission of the Commissioner of Insurance of the State of Vermont, has included, as admitted assets, the value of letters of credit serving as collateral for reinsurance credit taken by various affiliated cedants, in connection with reinsurance agreements entered into between MRV and the various affiliated cedants, which resulted in higher statutory capital and surplus of $2.8 billion and $2.7 billion for the years ended December 31, 2018 and 2017, respectively. MRV's RBC would have triggered a regulatory event without the use of the state prescribed practice.

The combined statutory net income (loss) of MetLife, Inc.'s U.S. captive life reinsurance subsidiaries was ($59) million, $2.1 billion and ($344) million for the years ended December 2018, 2017 and 2016, respectively, and the combined statutory capital and surplus, including the aforementioned prescribed practice, was $1.7 billion at both December 31, 2018 and 2017.

Dividend Restrictions

Insurance Operations

The table below sets forth the dividends permitted to be paid by MetLife, Inc.'s primary insurance subsidiaries without insurance regulatory approval and the actual dividends paid:

Company	2019 Permitted Without Approval (1)	2018 Paid (2)	2017 Paid (2)
		(In millions)	
Metropolitan Life Insurance Company	$ 3,096	$ 3,736	$ 2,523
American Life Insurance Company	$ —	$ 3,200	$ 2,200
Metropolitan Property and Casualty Insurance Company	$ 171	$ 233	$ 185
Metropolitan Tower Life Insurance Company (3)	$ 154	$ 191	$ —
General American Life Insurance Company (3)	N/A	$ —	$ 1

(1) Reflects dividend amounts that may be paid by the end of 2019 without prior regulatory approval.

(2) Reflects all amounts paid, including those where regulatory approval was obtained as required.

(3) See discussion of MTL Merger above.

15. Equity (continued)

Under the New York State Insurance Law, MLIC is permitted, without prior insurance regulatory clearance, to pay stockholder dividends to MetLife, Inc. in any calendar year based on either of two standards. Under one standard, MLIC is permitted, without prior insurance regulatory clearance, to pay dividends out of earned surplus (defined as positive unassigned funds (surplus), excluding 85% of the change in net unrealized capital gains or losses (less capital gains tax), for the immediately preceding calendar year), in an amount up to the greater of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) its statutory net gain from operations for the immediately preceding calendar year (excluding realized capital gains), not to exceed 30% of surplus to policyholders as of the end of the immediately preceding calendar year. In addition, under this standard, MLIC may not, without prior insurance regulatory clearance, pay any dividends in any calendar year immediately following a calendar year for which its net gain from operations, excluding realized capital gains, was negative. Under the second standard, if dividends are paid out of other than earned surplus, MLIC may, without prior insurance regulatory clearance, pay an amount up to the lesser of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) its statutory net gain from operations for the immediately preceding calendar year (excluding realized capital gains). In addition, MLIC will be permitted to pay a dividend to MetLife, Inc. in excess of the amounts allowed under both standards only if it files notice of its intention to declare such a dividend and the amount thereof with the New York Superintendent of Financial Services (the “Superintendent”) and the Superintendent either approves the distribution of the dividend or does not disapprove the dividend within 30 days of its filing. Under the New York State Insurance Law, the Superintendent has broad discretion in determining whether the financial condition of a stock life insurance company would support the payment of such dividends to its stockholder.

Under the Delaware Insurance Code, American Life is permitted, without prior insurance regulatory clearance, to pay a stockholder dividend to MetLife, Inc. as long as the amount of the dividend, when aggregated with all other dividends in the preceding 12 months, does not exceed the greater of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) its net statutory gain from operations for the immediately preceding calendar year (excluding realized capital gains), not including pro rata distributions of American Life’s own securities. American Life will be permitted to pay a dividend to MetLife, Inc. in excess of the greater of such two amounts only if it files notice of the declaration of such a dividend and the amount thereof with the Delaware Commissioner of Insurance (the “Delaware Commissioner”) and the Delaware Commissioner either approves the distribution of the dividend or does not disapprove the distribution within 30 days of its filing. In addition, any dividend that exceeds earned surplus (defined as “unassigned funds (surplus)”) as of the immediately preceding calendar year requires insurance regulatory approval. Under the Delaware Insurance Code, the Delaware Commissioner has broad discretion in determining whether the financial condition of a stock life insurance company would support the payment of such dividends to its stockholders.

Under the Rhode Island Insurance Code, Metropolitan Property and Casualty Insurance Company (“MPC”) is permitted, without prior insurance regulatory clearance, to pay a stockholder dividend to MetLife, Inc. as long as the aggregate amount of all such dividends in any 12 month period does not exceed the lesser of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) net income, not including realized capital gains, for the immediately preceding calendar year, not including pro rata distributions of MPC’s own securities. In determining whether a dividend is extraordinary, MPC may include carry forward net income from the previous two calendar years, excluding realized capital gains less dividends paid in the second and immediately preceding calendar years. MPC will be permitted to pay a dividend to MetLife, Inc. in excess of the lesser of such two amounts only if it files notice of its intention to declare such a dividend and the amount thereof with the Rhode Island Commissioner of Insurance (the “Rhode Island Commissioner”) and the Rhode Island Commissioner either approves the distribution of the dividend or does not disapprove the distribution within 30 days of its filing. Under the Rhode Island Insurance Code, the Rhode Island Commissioner has broad discretion in determining whether the financial condition of a stock property and casualty insurance company would support the payment of such dividends to its stockholders.

15. Equity (continued)

Under the Nebraska Insurance Code, MTL is permitted, without prior insurance regulatory clearance, to pay a stockholder dividend to MetLife, Inc. as long as the amount of the dividend, when aggregated with all other dividends in the preceding 12 months, does not exceed the greater of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) its net statutory gain from operations for the immediately preceding calendar year (excluding realized capital gains), not including pro rata distributions of MTL's own securities. MTL will be permitted to pay a dividend to MetLife, Inc. in excess of the greater of such two amounts only if it files notice of the declaration of such a dividend and the amount thereof with the Director of the Nebraska Department of Insurance (the "Nebraska Director") and the Nebraska Director either approves the distribution of the dividend or does not disapprove the distribution within 30 days of its filing. In addition, any dividend that exceeds earned surplus (defined as "unassigned funds (surplus)"), excluding unrealized capital gains) as of the immediately preceding calendar year requires insurance regulatory approval. Under the Nebraska Insurance Code, the Nebraska Director has broad discretion in determining whether the financial condition of a stock life insurance company would support the payment of such dividends to its stockholders.

MetLife, Inc.

In addition to regulatory restrictions on the payment of dividends by its insurance subsidiaries to MetLife, Inc., the payment of dividends by MetLife, Inc. to its stockholders is also subject to other restrictions. The declaration and payment of dividends are subject to the discretion of MetLife, Inc.'s Board of Directors and will depend on its financial condition, results of operations, cash requirements, future prospects and other factors deemed relevant by the Board of Directors. In addition, the payment of dividends on MetLife, Inc.'s common stock, and MetLife, Inc.'s ability to repurchase its common stock, may be subject to restrictions described below arising under the terms of MetLife, Inc.'s Series A preferred stock and its junior subordinated debentures in situations where MetLife, Inc. may be experiencing financial stress, as described below. For purposes of this discussion, "junior subordinated debentures" are deemed to include MetLife, Inc.'s Fixed-to-Floating Rate Exchangeable Surplus Trust Securities, as discussed in Note 14.

"Dividend Stopper" Provisions in the Preferred Stock and Junior Subordinated Debentures. If MetLife, Inc. has not paid the full dividends on its preferred stock for the latest completed dividend period, MetLife, Inc. may not repurchase or pay dividends on its common stock during a dividend period under so-called "dividend stopper" provisions. Further, MetLife, Inc.'s Series A preferred stock and its junior subordinated debentures contain provisions that would suspend the payment of preferred stock dividends and interest on junior subordinated debentures if MetLife, Inc. fails to meet certain risk-based capital ratio, net income and stockholders' equity tests at specified times, except to the extent of the net proceeds from the issuance of certain securities during specified periods. If Series A preferred stock dividends or interest on junior subordinated debentures are not paid, certain provisions in those instruments (including under "dividend stopper" provisions) may restrict MetLife, Inc. from repurchasing its common or preferred stock or paying dividends on its common or preferred stock and interest on its junior subordinated debentures.

The junior subordinated debentures further provide that MetLife, Inc. may, at its option and provided that certain conditions are met, defer payment of interest without giving rise to an event of default for periods of up to 10 years. In that case, after five years MetLife, Inc. would be obligated to use commercially reasonable efforts to sell equity securities to raise proceeds to pay the interest. MetLife, Inc. would not be subject to limitations on the number of deferral periods that MetLife, Inc. could begin, so long as all accrued and unpaid interest is paid with respect to prior deferral periods. If MetLife, Inc. were to defer payments of interest, the "dividend stopper" provisions in the junior subordinated debentures would thus prevent MetLife, Inc. from repurchasing or paying dividends on its common stock or other capital stock (including the preferred stock) during the period of deferral, subject to exceptions.

MetLife, Inc. is a party to certain RCCs which limit its ability to eliminate these restrictions through the repayment, redemption or purchase of junior subordinated debentures by requiring MetLife, Inc., with some limitations, to receive cash proceeds during a specified period from the sale of specified replacement securities prior to any repayment, redemption or purchase. See Note 14 for a description of such covenants.

15. Equity (continued)

Accumulated Other Comprehensive Income (Loss)

Information regarding changes in the balances of each component of AOCI attributable to MetLife, Inc., was as follows:

	Unrealized Investment Gains (Losses), Net of Related Offsets (1)	Unrealized Gains (Losses) on Derivatives	Foreign Currency Translation Adjustments	Defined Benefit Plans Adjustment	Total
			(In millions)		
Balance at December 31, 2015	$ 10,311	$ 1,458	$ (4,950)	$ (2,052)	$ 4,767
OCI before reclassifications	800	344	(476)	(62)	606
Deferred income tax benefit (expense)	(338)	(100)	114	24	(300)
AOCI before reclassifications, net of income tax	10,773	1,702	(5,312)	(2,090)	5,073
Amounts reclassified from AOCI	21	229	—	193	443
Deferred income tax benefit (expense)	(9)	(66)	—	(75)	(150)
Amounts reclassified from AOCI, net of income tax	12	163	—	118	293
Balance at December 31, 2016	10,785	1,865	(5,312)	(1,972)	5,366
OCI before reclassifications	5,392	(140)	765	(23)	5,994
Deferred income tax benefit (expense)	(1,732)	47	125	8	(1,552)
AOCI before reclassifications, net of income tax	14,445	1,772	(4,422)	(1,987)	9,808
Amounts reclassified from AOCI	(289)	(1,025)	—	167	(1,147)
Deferred income tax benefit (expense)	87	356	—	(43)	400
Amounts reclassified from AOCI, net of income tax	(202)	(669)	—	124	(747)
Disposal of subsidiary (3)	(2,286)	(305)	51	28	(2,512)
Deferred income tax benefit (expense)	800	107	(19)	(10)	878
Disposal of subsidiary, net of income tax	(1,486)	(198)	32	18	(1,634)
Balance at December 31, 2017	12,757	905	(4,390)	(1,845)	7,427
OCI before reclassifications	(8,735)	157	(679)	143	(9,114)
Deferred income tax benefit (expense)	1,961	(41)	36	(35)	1,921
AOCI before reclassifications, net of income tax	5,983	1,021	(5,033)	(1,737)	234
Amounts reclassified from AOCI	14	517	—	120	651
Deferred income tax benefit (expense)	(3)	(135)	—	(29)	(167)
Amounts reclassified from AOCI, net of income tax	11	382	—	91	484
Cumulative effects of changes in accounting principles	(425)	—	—	—	(425)
Deferred income tax benefit (expense), cumulative effects of changes in accounting principles	1,473	210	36	(382)	1,337
Cumulative effects of changes in accounting principles, net of income tax (2)	1,048	210	36	(382)	912
Sale of subsidiary (3)	—	—	92	—	92
Balance at December 31, 2018	$ 7,042	$ 1,613	$ (4,905)	$ (2,028)	$ 1,722

(1) See Note 8 for information on offsets to investments related to future policy benefits, DAC, VOBA and DSI, and the policyholder dividend obligation.

(2) See Note 1 for further information on adoption of new accounting pronouncements.

(3) See Note 3.

MetLife, Inc.

Notes to the Consolidated Financial Statements — (continued)

15. Equity (continued)

Information regarding amounts reclassified out of each component of AOCI was as follows:

AOCI Components	Amounts Reclassified from AOCI			Consolidated Statements of Operations Locations
	Years Ended December 31,			
	2018	2017	2016	
	(In millions)			
Net unrealized investment gains (losses):				
Net unrealized investment gains (losses)	$ 6	$ 404	$ 78	Net investment gains (losses)
Net unrealized investment gains (losses)	(1)	20	39	Net investment income
Net unrealized investment gains (losses)	(19)	(49)	(37)	Net derivative gains (losses)
Net unrealized investment gains (losses)	—	(86)	(101)	Discontinued operations
Net unrealized investment gains (losses), before income tax	(14)	289	(21)	
Income tax (expense) benefit	3	(87)	9	
Net unrealized investment gains (losses), net of income tax	(11)	202	(12)	
Unrealized gains (losses) on derivatives - cash flow hedges:				
Interest rate swaps	23	24	56	Net derivative gains (losses)
Interest rate swaps	18	16	12	Net investment income
Interest rate swaps	—	2	36	Discontinued operations
Interest rate forwards	(2)	(11)	(1)	Net derivative gains (losses)
Interest rate forwards	2	2	4	Net investment income
Interest rate forwards	1	1	1	Other expenses
Interest rate forwards	—	3	4	Discontinued operations
Foreign currency swaps	(558)	974	(350)	Net derivative gains (losses)
Foreign currency swaps	(5)	—	(2)	Net investment income
Foreign currency swaps	2	2	2	Other expenses
Foreign currency swaps	—	11	5	Discontinued operations
Credit forwards	1	1	3	Net derivative gains (losses)
Credit forwards	1	—	1	Net investment income
Gains (losses) on cash flow hedges, before income tax	(517)	1,025	(229)	
Income tax (expense) benefit	135	(356)	66	
Gains (losses) on cash flow hedges, net of income tax	(382)	669	(163)	
Defined benefit plans adjustment: (1)				
Amortization of net actuarial gains (losses)	(145)	(190)	(199)	
Amortization of prior service (costs) credit	25	23	6	
Amortization of defined benefit plan items, before income tax	(120)	(167)	(193)	
Income tax (expense) benefit	29	43	75	
Amortization of defined benefit plan items, net of income tax	(91)	(124)	(118)	
Total reclassifications, net of income tax	$ (484)	$ 747	$ (293)	

(1) These AOCI components are included in the computation of net periodic benefit costs. See Note 17.

16. Other Revenues and Other Expenses

Other Revenues

Information on other revenues, which primarily includes fees related to service contracts from customers, was as follows:

	Year Ended December 31, 2018	
	(In millions)	
Prepaid legal plans	$	296
Fee-based investment management		293
Recordkeeping and administrative services (1)		221
Administrative services-only contracts		205
Other revenue from service contracts from customers		241
Total revenues from service contracts from customers	$	1,256
Other		624
Total other revenues	$	1,880

(1) Related to products and businesses no longer actively marketed by the Company.

Other Expenses

Information on other expenses was as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Employee related costs	$ 3,664	$ 3,595	$ 3,840
Third party staffing costs	1,703	1,693	1,619
General and administrative expenses	910	1,129	1,007
Pension, postretirement and postemployment benefit costs	185	307	400
Premium taxes, other taxes, and licenses & fees	758	842	688
Commissions and other variable expenses	5,707	5,387	5,741
Capitalization of DAC	(3,254)	(3,002)	(3,152)
Amortization of DAC and VOBA	2,975	2,681	2,718
Amortization of negative VOBA	(56)	(140)	(269)
Interest expense on debt	1,122	1,129	1,157
Total other expenses	$ 13,714	$ 13,621	$ 13,749

See Note 3 for further information on Separation-related transaction costs.

Capitalization of DAC and Amortization of DAC and VOBA

See Note 5 for additional information on DAC and VOBA including impacts of capitalization and amortization. See also Note 7 for a description of the DAC amortization impact associated with the closed block.

Expenses related to Debt

See Notes 12, 13, and 14 for attribution of interest expense by debt issuance and other expenses related to debt transactions.

16. Other Revenues and Other Expenses (continued)

Restructuring Charges

The Company commenced in 2016 a unit cost improvement program related to the Company's refreshed enterprise strategy. This global strategy focuses on transforming the Company to become more digital, driving efficiencies and innovation to achieve competitive advantage, and simplified, decreasing the costs and risks associated with the Company's highly complex industry to customers and shareholders. Restructuring charges related to this program are included in other expenses. As the expenses relate to an enterprise-wide initiative, they are reported in Corporate & Other. Such restructuring charges were as follows:

	Years Ended December 31,		
	2018	2017	2016
		Severance	
		(In millions)	
Balance at January 1,	$ 22	$ 35	$ —
Restructuring charges	63	38	35
Cash payments	(62)	(51)	—
Balance at December 31,	$ 23	$ 22	$ 35
Total restructuring charges incurred since inception of initiative	$ 136	$ 73	$ 35

Management anticipates further restructuring charges through the year ending December 31, 2019. However, such restructuring plans were not sufficiently developed to enable management to make an estimate of such restructuring charges at December 31, 2018.

In 2016, the Company completed a previous enterprise-wide strategic initiative. These restructuring charges were included in other expenses. As the expenses related to an enterprise-wide initiative, they were reported in Corporate & Other. Information regarding such restructuring charges was as follows:

	Year Ended December 31, 2016		
	Severance	Lease and Asset Impairment	Total
		(In millions)	
Balance at January 1,	$ 18	$ 4	$ 22
Restructuring charges	—	1	1
Cash payments	(17)	(4)	(21)
Balance at December 31,	$ 1	$ 1	$ 2
Total restructuring charges incurred since inception of initiative	$ 383	$ 47	$ 430

17. Employee Benefit Plans

Pension and Other Postretirement Benefit Plans

Certain subsidiaries of MetLife, Inc. sponsor and/or administer a U.S. qualified and various U.S. and non-U.S. nonqualified defined benefit pension plans and other postretirement employee benefit plans covering employees who meet specified eligibility requirements. U.S. pension benefits are provided utilizing either a traditional formula or cash balance formula. The traditional formula provides benefits that are primarily based upon years of credited service and either final average or career average earnings. The cash balance formula utilizes hypothetical or notional accounts which credit participants with benefits equal to a percentage of eligible pay, as well as interest credits, determined annually based upon the annual rate of interest on 30-year U.S. Treasury securities, for each account balance. In September 2018, the U.S. qualified and nonqualified defined benefit pension plans were amended, effective January 1, 2023, to provide benefits accruals for all active participants under the cash balance formula and to cease future accruals under the traditional formula. The U.S. nonqualified pension plans provide supplemental benefits in excess of limits applicable to a qualified plan. The non-U.S. pension plans generally provide benefits based upon either years of credited service and earnings preceding retirement or points earned on job grades and other factors in years of service.

17. Employee Benefit Plans (continued)

These subsidiaries also provide certain postemployment benefits and certain postretirement medical and life insurance benefits for U.S. and non-U.S. retired employees. Employees of these subsidiaries who were hired prior to 2003 (or, in certain cases, rehired during or after 2003) and meet age and service criteria while working for one of the subsidiaries may become eligible for these other postretirement benefits, at various levels, in accordance with the applicable plans. Virtually all retirees, or their beneficiaries, contribute a portion of the total costs of postretirement medical benefits. Employees hired after 2003 are not eligible for any employer subsidy for postretirement medical benefits. In September 2018, the U.S. postretirement medical and life insurance benefit plans were amended, effective January 1, 2023, to discontinue the accrual of the employer subsidy credits for eligible employees.

The benefit obligations, funded status and net periodic benefit costs related to these pension and other postretirement benefits were comprised of the following:

	December 31, 2018						December 31, 2017					
	Pension Benefits			Other Postretirement Benefits			Pension Benefits			Other Postretirement Benefits		
	U.S. Plans	Non-U.S. Plans	Total	U.S. Plans	Non-U.S. Plans	Total	U.S. Plans	Non-U.S. Plans	Total	U.S. Plans	Non-U.S. Plans	Total
	(In millions)											
Benefit obligations	$ 9,580	$ 1,011	$10,591	$ 1,288	$ 36	$ 1,324	$10,500	$ 909	$11,409	$ 1,648	$ 26	$ 1,674
Estimated fair value of plan assets	8,615	333	8,948	1,334	26	1,360	9,371	317	9,688	1,426	8	1,434
Over (under) funded status	$ (965)	$ (678)	$(1,643)	$ 46	$ (10)	$ 36	$(1,129)	$ (592)	$(1,721)	$ (222)	$ (18)	$ (240)
Net periodic benefit costs	$ 176	$ 83	$ 259	$ (66)	$ 2	$ (64)	$ 267	$ 82	$ 349	$ (12)	$ 2	$ (10)

17. Employee Benefit Plans (continued)

Obligations and Funded Status

	December 31,			
	2018		2017	
	Pension Benefits (1)	Other Postretirement Benefits	Pension Benefits (1)	Other Postretirement Benefits
	(In millions)			
Change in benefit obligations:				
Benefit obligations at January 1,	$ 11,409	$ 1,674	$ 10,741	$ 1,759
Service costs	223	6	238	6
Interest costs	391	55	429	76
Plan participants' contributions	—	30	—	33
Plan amendments	(110)	(7)	—	—
Net actuarial (gains) losses	(713)	(348)	595	(95)
Acquisition, divestitures, settlements and curtailments	(6)	13	(27)	—
Benefits paid	(623)	(97)	(600)	(107)
Effect of foreign currency translation	20	(2)	33	2
Benefit obligations at December 31,	10,591	1,324	11,409	1,674
Change in plan assets:				
Estimated fair value of plan assets at January 1,	9,688	1,434	9,009	1,386
Actual return on plan assets	(423)	(27)	968	125
Acquisition, divestitures and settlements	(5)	16	(30)	(1)
Plan participants' contributions	—	32	—	33
Employer contributions	306	4	329	(2)
Benefits paid	(623)	(97)	(600)	(107)
Effect of foreign currency translation	5	(2)	12	—
Estimated fair value of plan assets at December 31,	8,948	1,360	9,688	1,434
Over (under) funded status at December 31,	$ (1,643)	$ 36	$ (1,721)	$ (240)
Amounts recognized on the consolidated balance sheets:				
Other assets	$ 135	$ 373	$ 59	$ 160
Other liabilities	(1,778)	(337)	(1,780)	(400)
Net amount recognized	$ (1,643)	$ 36	$ (1,721)	$ (240)
AOCI:				
Net actuarial (gains) losses	$ 2,979	$ (269)	$ 2,917	$ (55)
Prior service costs (credit)	(118)	(14)	(11)	(27)
AOCI, before income tax	$ 2,861	$ (283)	$ 2,906	$ (82)
Accumulated benefit obligation	$ 10,301	N/A	$ 10,996	N/A

(1) Includes nonqualified unfunded plans, for which the aggregate PBO was $1.1 billion and $1.2 billion at December 31, 2018 and 2017, respectively.

17. Employee Benefit Plans (continued)

Information for pension plans with PBOs in excess of plan assets and accumulated benefit obligations (“ABO”) in excess of plan assets was as follows at:

	December 31,			
	2018	2017	2018	2017
	PBO Exceeds Estimated Fair Value of Plan Assets		ABO Exceeds Estimated Fair Value of Plan Assets	
	(In millions)			
Projected benefit obligations	$ 2,021	$ 2,016	$ 1,999	$ 1,996
Accumulated benefit obligations	$ 1,921	$ 1,904	$ 1,906	$ 1,890
Estimated fair value of plan assets	$ 301	$ 285	$ 280	$ 266

Net Periodic Benefit Costs

The components of net periodic benefit costs and other changes in plan assets and benefit obligations recognized in OCI were as follows:

	Years Ended December 31,					
	2018		2017		2016	
	Pension Benefits	Other Postretirement Benefits	Pension Benefits	Other Postretirement Benefits	Pension Benefits	Other Postretirement Benefits
	(In millions)					
Net periodic benefit costs:						
Service costs	$ 223	$ 6	$ 238	$ 6	$ 272	$ 9
Interest costs	391	55	429	76	423	82
Settlement and curtailment costs (1)	(1)	—	4	2	2	19
Expected return on plan assets	(533)	(71)	(516)	(72)	(527)	(75)
Amortization of net actuarial (gains) losses	182	(34)	195	—	189	10
Amortization of prior service costs (credit)	(3)	(20)	(1)	(22)	—	(6)
Total net periodic benefit costs (credit)	259	(64)	349	(10)	359	39
Other changes in plan assets and benefit obligations recognized in OCI:						
Net actuarial (gains) losses	244	(248)	149	(146)	238	(124)
Prior service costs (credit)	(110)	(7)	(1)	—	(11)	(41)
Amortization of net actuarial (gains) losses	(182)	34	(195)	—	(189)	(10)
Amortization of prior service (costs) credit	3	20	1	22	—	6
Discontinued operations	—	—	—	—	(1)	1
Disposal of subsidiary	—	—	(30)	2	—	—
Total recognized in OCI	(45)	(201)	(76)	(122)	37	(168)
Total recognized in net periodic benefit costs and OCI	$ 214	$ (265)	$ 273	$ (132)	$ 396	$ (129)

(1) The Company recognized curtailment charges in 2016 on certain postretirement benefit plans in connection with the U.S. Retail Advisor Force Divestiture. See Note 3.

17. Employee Benefit Plans (continued)

The estimated net actuarial (gains) losses and prior service costs (credit) for the defined benefit pension plans and other postretirement benefit plans that will be amortized from AOCI into net periodic benefit costs over the next year are $184 million and ($17) million, and ($34) million and ($11) million, respectively.

Assumptions

Assumptions used in determining benefit obligations for the U.S. plans were as follows:

	Pension Benefits	Other Postretirement Benefits
December 31, 2018		
Weighted average discount rate	4.35%	4.35%
Rate of compensation increase	2.25% - 8.50%	N/A
December 31, 2017		
Weighted average discount rate	3.65%	3.70%
Rate of compensation increase	2.25% - 8.50%	N/A

Assumptions used in determining net periodic benefit costs for the U.S. plans were as follows:

	Pension Benefits	Other Postretirement Benefits
Year Ended December 31, 2018		
Weighted average discount rate	3.65%	3.70%
Weighted average expected rate of return on plan assets	5.75%	5.11%
Rate of compensation increase	2.25% - 8.50%	N/A
Year Ended December 31, 2017		
Weighted average discount rate	4.30%	4.45%
Weighted average expected rate of return on plan assets	6.00%	5.36%
Rate of compensation increase	2.25% - 8.50%	N/A
Year Ended December 31, 2016		
Weighted average discount rate	4.13%	4.37%
Weighted average expected rate of return on plan assets	6.00%	5.53%
Rate of compensation increase	2.25% - 8.50%	N/A

The weighted average discount rate for the U.S. plans is determined annually based on the yield, measured on a yield to worst basis, of a hypothetical portfolio constructed of high quality debt instruments available on the valuation date, which would provide the necessary future cash flows to pay the aggregate PBO when due.

The weighted average expected rate of return on plan assets for the U.S. plans is based on anticipated performance of the various asset sectors in which the plans invest, weighted by target allocation percentages. Anticipated future performance is based on long-term historical returns of the plan assets by sector, adjusted for the long-term expectations on the performance of the markets. While the precise expected rate of return derived using this approach will fluctuate from year to year, the policy is to hold this long-term assumption constant as long as it remains within reasonable tolerance from the derived rate.

The weighted average expected rate of return on plan assets for use in that plan's valuation in 2019 is currently anticipated to be 5.75% for U.S. pension benefits and 5.11% for U.S. other postretirement benefits.

17. Employee Benefit Plans (continued)

The assumed healthcare costs trend rates used in measuring the APBO and net periodic benefit costs were as follows:

	December 31,			
	2018		2017	
	Before Age 65	Age 65 and older	Before Age 65	Age 65 and older
Following year	5.4%	2.8%	5.6%	6.6%
Ultimate rate to which cost increase is assumed to decline	3.9%	4.2%	4.0%	4.3%
Year in which the ultimate trend rate is reached	2080	2097	2086	2098

Assumed healthcare costs trend rates may have a significant effect on the amounts reported for healthcare plans. A 1% change in assumed healthcare costs trend rates would have the following effects on the U.S. plans as of December 31, 2018:

	One Percent Increase	One Percent Decrease
	(In millions)	
Effect on total of service and interest costs components	$ 5	$ (4)
Effect of accumulated postretirement benefit obligations	$ 121	$ (102)

Plan Assets

Certain U.S. subsidiaries provide employees with benefits under various Employee Retirement Income Security Act of 1974 ("ERISA") benefit plans. These include qualified pension plans, postretirement medical plans and certain retiree life insurance coverage. The assets of these U.S. subsidiaries' qualified pension plans are held in an insurance group annuity contract, and the vast majority of the assets of the postretirement medical plan and backing the retiree life coverage are held in a trust which largely utilizes insurance contracts to hold the assets. All of these contracts are issued by the Company's insurance affiliates, and the assets under the contracts are held in insurance separate accounts that have been established by the Company. The underlying assets of the separate accounts are principally comprised of cash and cash equivalents, short-term investments, fixed maturity securities AFS, equity securities, derivatives, real estate, private equity investments and hedge fund investments.

The insurance contract provider engages investment management firms ("Managers") to serve as sub-advisors for the separate accounts based on the specific investment needs and requests identified by the plan fiduciary. These Managers have portfolio management discretion over the purchasing and selling of securities and other investment assets pursuant to the respective investment management agreements and guidelines established for each insurance separate account. The assets of the qualified pension plans and postretirement medical plans (the "Invested Plans") are well diversified across multiple asset categories and across a number of different Managers, with the intent of minimizing risk concentrations within any given asset category or with any of the given Managers.

The Invested Plans, other than those held in participant directed investment accounts, are managed in accordance with investment policies consistent with the longer-term nature of related benefit obligations and within prudent risk parameters. Specifically, investment policies are oriented toward (i) maximizing the Invested Plan's funded status; (ii) minimizing the volatility of the Invested Plan's funded status; (iii) generating asset returns that exceed liability increases; and (iv) targeting rates of return in excess of a custom benchmark and industry standards over appropriate reference time periods. These goals are expected to be met through identifying appropriate and diversified asset classes and allocations, ensuring adequate liquidity to pay benefits and expenses when due and controlling the costs of administering and managing the Invested Plan's investments. Independent investment consultants are periodically used to evaluate the investment risk of the Invested Plan's assets relative to liabilities, analyze the economic and portfolio impact of various asset allocations and management strategies and recommend asset allocations.

Derivative contracts may be used to reduce investment risk, to manage duration and to replicate the risk/return profile of an asset or asset class. Derivatives may not be used to leverage a portfolio in any manner, such as to magnify exposure to an asset, asset class, interest rates or any other financial variable. Derivatives are also prohibited for use in creating exposures to securities, currencies, indices or any other financial variable that is otherwise restricted.

17. Employee Benefit Plans (continued)

The table below summarizes the actual weighted average allocation of the estimated fair value of total plan assets by asset class at December 31 for the years indicated and the approved target allocation by major asset class at December 31, 2018 for the Invested Plans:

	December 31,					
	2018				2017	
	U.S. Pension Benefits		U.S. Other Postretirement Benefits (1)		U.S. Pension Benefits	U.S. Other Postretirement Benefits (1)
	Target	Actual Allocation	Target	Actual Allocation	Actual Allocation	Actual Allocation
Asset Class						
Fixed maturity securities AFS	82%	82%	85%	82%	82%	84%
Equity securities (2)	10%	10%	15%	18%	10%	15%
Alternative securities (3)	8%	8%	—%	—%	8%	1%
Total assets		100%		100%	100%	100%

(1) U.S. other postretirement benefits do not reflect postretirement life's plan assets invested in fixed maturity securities AFS.

(2) Equity securities percentage includes derivative assets.

(3) Alternative securities primarily include hedge, private equity and real estate funds.

Estimated Fair Value

The pension and other postretirement benefit plan assets are categorized into a three-level fair value hierarchy, as described in Note 10, based upon the significant input with the lowest level in its valuation. The Level 2 asset category includes certain separate accounts that are primarily invested in liquid and readily marketable securities. The estimated fair value of such separate accounts is based upon reported NAV provided by fund managers and this value represents the amount at which transfers into and out of the respective separate account are effected. These separate accounts provide reasonable levels of price transparency and can be corroborated through observable market data. Directly held investments are primarily invested in U.S. and foreign government and corporate securities. The Level 3 asset category includes separate accounts that are invested in assets that provide little or no price transparency due to the infrequency with which the underlying assets trade and generally require additional time to liquidate in an orderly manner. Accordingly, the values for separate accounts invested in these alternative asset classes are based on inputs that cannot be readily derived from or corroborated by observable market data.

17. Employee Benefit Plans (continued)

The pension and other postretirement plan assets measured at estimated fair value on a recurring basis and their corresponding placement in the fair value hierarchy are summarized as follows:

	December 31, 2018							
	Pension Benefits				Other Postretirement Benefits			
	Fair Value Hierarchy				Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total Estimated Fair Value	Level 1	Level 2	Level 3	Total Estimated Fair Value
	(In millions)							
Assets								
Fixed maturity securities AFS:								
Corporate	$ —	$ 3,350	$ 1	$ 3,351	$ —	$ 313	$ —	$ 313
U.S. government bonds	1,314	471	—	1,785	268	—	—	268
Foreign bonds	—	837	—	837	—	90	—	90
Federal agencies	—	88	—	88	—	16	—	16
Municipals	—	240	—	240	—	29	—	29
Short-term investments	1	198	—	199	1	397	—	398
Other (1)	210	590	1	801	3	69	—	72
Total fixed maturity securities AFS	1,525	5,774	2	7,301	272	914	—	1,186
Equity securities	706	195	—	901	155	18	—	173
Other investments	20	—	688	708	—	—	—	—
Derivative assets	33	4	1	38	1	—	—	1
Total assets	$ 2,284	$ 5,973	$ 691	$ 8,948	$ 428	$ 932	$ —	$ 1,360

	December 31, 2017							
	Pension Benefits				Other Postretirement Benefits			
	Fair Value Hierarchy				Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total Estimated Fair Value	Level 1	Level 2	Level 3	Total Estimated Fair Value
	(In millions)							
Assets								
Fixed maturity securities AFS:								
Corporate	$ —	$ 3,833	$ 1	$ 3,834	$ 20	$ 362	$ —	$ 382
U.S. government bonds	1,256	528	—	1,784	269	6	—	275
Foreign bonds	—	1,037	—	1,037	—	102	—	102
Federal agencies	35	134	—	169	—	17	—	17
Municipals	—	335	—	335	—	28	—	28
Short-term investments	135	192	—	327	8	390	—	398
Other (1)	7	388	10	405	—	68	—	68
Total fixed maturity securities AFS	1,433	6,447	11	7,891	297	973	—	1,270
Equity securities	797	177	3	977	154	—	—	154
Other investments	19	144	622	785	—	9	—	9
Derivative assets	33	2	—	35	1	—	—	1
Total assets	$ 2,282	$ 6,770	$ 636	$ 9,688	$ 452	$ 982	$ —	$ 1,434

17. Employee Benefit Plans (continued)

(1) Other primarily includes money market securities, mortgage-backed securities, collateralized mortgage obligations and ABS.

A rollforward of all pension and other postretirement benefit plan assets measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs was as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)				
	Pension Benefits				
	Fixed Maturity Securities AFS:				
	Corporate	Other (1)	Equity Securities	Other Investments	Derivative Assets
	(In millions)				
Balance, January 1, 2017	$ —	$ 9	$ —	$ 637	$ 65
Realized gains (losses)	(10)	—	2	—	(22)
Unrealized gains (losses)	10	—	—	(12)	6
Purchases, sales, issuances and settlements, net	—	8	(4)	—	(48)
Transfers into and/or out of Level 3	1	(7)	5	(3)	(1)
Balance, December 31, 2017	$ 1	$ 10	$ 3	$ 622	$ —
Realized gains (losses)	—	—	—	—	—
Unrealized gains (losses)	—	—	—	23	—
Purchases, sales, issuances and settlements, net	—	(3)	—	43	—
Transfers into and/or out of Level 3	—	(6)	(3)	—	1
Balance, December 31, 2018	$ 1	$ 1	$ —	$ 688	$ 1

(1) Other includes ABS and collateralized mortgage obligations.

For the years ended December 31, 2018 and 2017, there were no other postretirement benefit plan assets measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs.

Expected Future Contributions and Benefit Payments

It is the subsidiaries' practice to make contributions to the U.S. qualified pension plan to comply with minimum funding requirements of ERISA. In accordance with such practice, no contributions are required for 2019. The subsidiaries expect to make discretionary contributions to the qualified pension plan of $150 million in 2019. For information on employer contributions, see "— Obligations and Funded Status."

Benefit payments due under the U.S. nonqualified pension plans are primarily funded from the subsidiaries' general assets as they become due under the provisions of the plans, and therefore benefit payments equal employer contributions. The U.S. subsidiaries expect to make contributions of $70 million to fund the benefit payments in 2019.

Postretirement benefits are either: (i) not vested under law; (ii) a non-funded obligation of the subsidiaries; or (iii) both. Current regulations do not require funding for these benefits. The subsidiaries use their general assets, net of participant's contributions, to pay postretirement medical claims as they come due. As permitted under the terms of the governing trust document, the subsidiaries may be reimbursed from plan assets for postretirement medical claims paid from their general assets. The U.S. subsidiaries expect to make contributions of $50 million towards benefit obligations in 2019 to pay postretirement medical claims.

17. Employee Benefit Plans (continued)

Gross benefit payments for the next 10 years, which reflect expected future service where appropriate, are expected to be as follows:

	Pension Benefits	Other Postretirement Benefits
	(In millions)	
2019	$ 620	$ 85
2020	$ 636	$ 83
2021	$ 643	$ 81
2022	$ 661	$ 82
2023	$ 682	$ 84
2024-2028	$ 3,596	$ 413

Additional Information

As previously discussed, most of the assets of the U.S. pension benefit plans are held in group annuity contracts issued by the subsidiaries while some of the assets of the U.S. postretirement benefit plans are held in a trust which largely utilizes life insurance contracts issued by the subsidiaries to hold such assets. Total revenues from these contracts recognized on the consolidated statements of operations were $56 million, $56 million and $58 million for the years ended December 31, 2018, 2017 and 2016, respectively, and included policy charges and net investment income from investments backing the contracts and administrative fees. Total investment income (loss), including realized and unrealized gains (losses), credited (debited) to the account balances was ($448) million, $1.1 billion and $660 million for the years ended December 31, 2018, 2017 and 2016, respectively. The terms of these contracts are consistent in all material respects with those the subsidiaries offer to unaffiliated parties that are similarly situated.

Defined Contribution Plans

Certain subsidiaries sponsor defined contribution plans under which a portion of employee contributions are matched. These subsidiaries contributed $63 million, $72 million and $81 million for the years ended December 31, 2018, 2017 and 2016, respectively.

18. Income Tax

The provision for income tax from continuing operations was as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Current:			
U.S. federal	$ (207)	$ (246)	$ 520
U.S. state and local	11	5	3
Non-U.S.	932	891	628
Subtotal	736	650	1,151
Deferred:			
U.S. federal	342	(2,373)	(827)
Non-U.S.	101	253	369
Subtotal	443	(2,120)	(458)
Provision for income tax expense (benefit)	$ 1,179	$ (1,470)	$ 693

The Company's income (loss) from continuing operations before income tax expense (benefit) was as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Income (loss) from continuing operations:			
U.S.	$ (803)	$ 684	$ 185
Non-U.S.	7,110	2,852	4,096
Total	$ 6,307	$ 3,536	$ 4,281

18. Income Tax (continued)

The reconciliation of the income tax provision at the U.S. statutory rate (21% in 2018; 35% in 2017 and 2016) to the provision for income tax as reported for continuing operations was as follows:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Tax provision at U.S. statutory rate	$ 1,325	$ 1,238	$ 1,498
Tax effect of:			
Dividend received deduction	(35)	(67)	(69)
Tax-exempt income	(29)	(97)	(86)
Prior year tax (1)	(197)	(27)	(13)
Low income housing tax credits	(284)	(278)	(270)
Other tax credits	(79)	(102)	(98)
Foreign tax rate differential (2), (3), (4)	335	(95)	(332)
Change in valuation allowance	(2)	(8)	(9)
Separation tax benefits	—	(540)	—
U.S. Tax Reform impact (5), (6)	78	(1,519)	—
Other, net (7)	67	25	72
Provision for income tax expense (benefit)	$ 1,179	$ (1,470)	$ 693

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(1) As discussed further below, for the year ended December 31, 2018, prior year tax includes a $168 million non-cash benefit related to an uncertain tax position.

(2) For the year ended December 31, 2018, foreign tax rate differential includes tax charges of $45 million related to Global Intangible Low-Taxed Income (“GILTI”), $17 million related to a tax adjustment in Chile and $13 million from changes in the valuation of the peso in Argentina.

(3) For the year ended December 31, 2017, foreign tax rate differential includes a net tax charge of $180 million as a result of repatriation. Included in the net tax charge of $180 million is a $444 million tax charge related to the repatriation of approximately $3.0 billion of pre-2017 earnings following the post-Separation review of the Company’s capital needs. This charge was partially offset by a $264 million tax benefit associated with dividends from other non-U.S. operations. This charge was recorded prior to U.S. Tax Reform and is incremental to the $170 million repatriation transition tax recorded for the year ended December 31, 2017.

(4) For the year ended December 31, 2016, foreign tax rate differential includes a tax benefit of $110 million in Japan related to a change in tax rate, offset by a tax charge of $19 million in Chile related to a change in tax rate.

(5) For the year ended December 31, 2018, U.S. Tax Reform impact includes a $468 million tax charge related to the deemed repatriation transition tax, offset by a $390 million tax benefit related to the adjustment of deferred taxes due to the U.S. tax rate change. This excludes $12 million of tax provision at the U.S. statutory rate for a total tax reform charge of $66 million.

(6) For the year ended December 31, 2017, U.S. Tax Reform impact of ($1.5) billion excludes ($101) million of tax provision at the U.S. statutory rate for a total tax reform benefit of ($1.6) billion.

(7) For the year ended December 31, 2018, other includes tax charges of $69 million related to the non-deductible loss incurred on the mark-to-market and exchange of FVO Brighthouse Common Stock and $18 million related to a non-deductible Patient Protection and Affordable Care Act excise tax, offset by a tax benefit of $36 million related to a non-cash transfer of assets from a wholly-owned U.K. subsidiary to its U.S. parent.

On December 22, 2017, President Trump signed into law U.S. Tax Reform. U.S. Tax Reform includes numerous changes in tax law, including a permanent reduction in the U.S. federal corporate income tax rate from 35% to 21%, which took effect for taxable years beginning on or after January 1, 2018. U.S. Tax Reform moves the United States from a worldwide tax system

18. Income Tax (continued)

to a participation exemption system by providing corporations a 100% dividends received deduction for dividends distributed by a controlled foreign corporation. To transition to that new system, U.S. Tax Reform imposed a one-time deemed repatriation tax on unremitted earnings and profits at a rate of 8.0% for illiquid assets and 15.5% for cash and cash equivalents.

The incremental financial statement impact related to U.S. Tax Reform was as follows:

	Years Ended December 31,	
	2018	2017
	(In millions)	
Income (loss) from continuing operations before provision for income tax	$ (58)	$ (289)
Provision for income tax expense (benefit):		
Deemed repatriation	468	170
Deferred tax revaluation	(402)	(1,790)
Total provision for income tax expense (benefit)	66	(1,620)
Income (loss) from continuing operations, net of income tax	(124)	1,331
Income tax (expense) benefit related to items of other comprehensive income (loss)	—	144
Increase to net equity from U.S. Tax Reform	$ (124)	$ 1,475

In accordance with SAB 118 issued by the SEC in December 2017, the Company recorded provisional amounts for certain items for which the income tax accounting is not complete. For these items, the Company recorded a reasonable estimate of the tax effects of U.S. Tax Reform. The estimates were reported as provisional amounts during the measurement period, which did not exceed one year from the date of enactment of U.S. Tax Reform. The Company reflected adjustments to its provisional amounts upon obtaining, preparing, or analyzing additional information about facts and circumstances that existed as of the enactment date that, if known, would have affected the income tax effects initially reported as provisional amounts.

As of December 31, 2017, the following items were considered provisional estimates due to complexities and ambiguities in U.S. Tax Reform which resulted in incomplete accounting for the tax effects of these provisions. Further guidance, either legislative or interpretive, and analysis were completed during the measurement period. As a result, the following updates were made to complete the accounting for these items as of December 31, 2018:

- Deemed Repatriation Transition Tax - The Company recorded a $170 million charge for this item for the year ended December 31, 2017. This charge was in addition to the $180 million charge recorded in the third quarter of 2017 resulting from the post-Separation review of the Company's capital needs. The total transition tax liability recorded for the year ended December 31, 2017 was $350 million. In 2018, the IRS issued proposed regulations related to the transition tax. As a result, for the year ended December 31, 2018, the Company recorded a $468 million charge.
- GILTI - U.S. Tax Reform imposes a minimum tax on GILTI, which is generally the excess income of foreign subsidiaries over a 10% rate of routine return on tangible business assets. For the year ended December 31, 2017, the Company did not record a tax charge for this item. In 2018, the Company established an accounting policy in which it treats taxes due on GILTI as a current-period expense when incurred. Accordingly, for the year ended December 31, 2018, the Company recorded a $45 million tax charge related to this income.
- Compensation and Fringe Benefits - U.S. Tax Reform limits certain employer deductions for fringe benefit and related expenses and also repeals the exception allowing the deduction of certain performance-based compensation paid to certain senior executives. The Company recorded an $8 million tax charge, included within the deferred tax revaluation as of December 31, 2017. The Company determined that no additional adjustment was required for the year ended December 31, 2018.

18. Income Tax (continued)

- Alternative Minimum Tax Credits - U.S. Tax Reform eliminates the corporate alternative minimum tax and allows for minimum tax credit carryforwards to be used to offset future regular tax or to be refunded 50% each tax year beginning in 2018, with any remaining balance fully refunded in 2021. However, pursuant to the requirements of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, refund payments issued for corporations claiming refundable prior year alternative minimum tax credits are subject to a sequestration rate of 6.2%. The application of this fee to refunds in future years is subject to further guidance. Additionally, the sequestration reduction rate in effect at the time is subject to uncertainty. For the year ended December 31, 2017, the Company recorded a $9 million tax charge, included within the deferred tax revaluation. For the year ended December 31, 2018, the Company determined that no additional adjustment was required. In early 2019, the IRS issued guidance indicating that for years beginning after December 31, 2017, refund payments and credit elect and refund offset transactions due to refundable minimum tax credits will not be subject to sequestration. The Company will incorporate the impacts of this IRS announcement in 2019.
- Tax Credit Partnerships - The reduction in the federal corporate income tax rate due to U.S. Tax Reform required adjustments for multiple investment portfolios, including tax credit partnerships and tax-advantaged leverage leases. Certain tax credit partnership investments derive returns in part from income tax credits. The Company recognizes changes in tax attributes at the partnership level when reported by the investee in its financial information. The Company did not receive the necessary investee financial information to determine the impact of U.S. Tax Reform on the tax attributes of its tax credit partnership investments until the third quarter of 2018. Accordingly, prior to the third quarter of 2018, the Company applied prior law to these equity method investments in accordance with SAB 118. For the year ended December 31, 2018, after receiving additional investee information, a reduction in tax credit partnerships' equity method income of $46 million, net of income tax, was included in net investment income. The tax-advantaged leveraged lease portfolio is valued on an after-tax yield-basis. In 2018, the Company received third party data that was used to complete a comprehensive review of its portfolio to determine the full and complete impact of U.S. Tax Reform on these investments. As a result of this review, a tax benefit of $125 million was recorded for the year ended December 31, 2018.

18. Income Tax (continued)

U.S. Tax Reform required the Company to recognize a transition tax on all previously unremitted non-U.S. earnings at December 31, 2017. However, the Company has not provided for U.S. deferred taxes on the remaining excess of book bases over tax bases of certain investments in non-U.S. subsidiaries that are essentially permanent in duration. The amount of deferred tax liability related to the Company's remaining basis difference in these non-U.S. subsidiaries is $181 million at December 31, 2018.

Deferred income tax represents the tax effect of the differences between the book and tax bases of assets and liabilities. Net deferred income tax assets and liabilities consisted of the following at:

	December 31,	
	2018	2017
	(In millions)	
Deferred income tax assets:		
Policyholder liabilities and receivables	$ 2,887	$ 2,654
Net operating loss carryforwards	104	512
Employee benefits	705	802
Capital loss carryforwards	—	6
Tax credit carryforwards	1,113	1,322
Litigation-related and government mandated	161	160
Other	191	657
Total gross deferred income tax assets	5,161	6,113
Less: Valuation allowance	169	189
Total net deferred income tax assets	4,992	5,924
Deferred income tax liabilities:		
Investments, including derivatives	2,494	2,772
Intangibles	1,256	1,321
Net unrealized investment gains	2,898	4,783
DAC	3,263	3,206
Other	495	609
Total deferred income tax liabilities	10,406	12,691
Net deferred income tax asset (liability)	$ (5,414)	$ (6,767)

The Company also has recorded a valuation allowance benefit of $12 million related to certain U.S. state and non-U.S. net operating loss carryforwards for the year ended December 31, 2018. In addition, an $8 million decrease was related to foreign currency exchange rate movement for the year ended December 31, 2018. The valuation allowance reflects management's assessment, based on available information, that it is more likely than not that the deferred income tax asset for certain U.S. state and non-U.S. net operating loss carryforwards will not be realized. The tax benefit will be recognized when management believes that it is more likely than not that these deferred income tax assets are realizable.

18. Income Tax (continued)

The following table sets forth the net operating loss carryforwards for tax return purposes at December 31, 2018.

	Net Operating Loss Carryforwards		
	U.S. Federal	U.S. State	Non-U.S.
		(In millions)	
Expiration:			
2019-2023	$ 1	$ —	$ 67
2024-2028	—	—	18
2029-2033	6	—	—
2034-2038	—	140	—
Indefinite	—	—	416
	$ 7	$ 140	$ 501

The following table sets forth the general business credits, foreign tax credits, and other credit carryforwards for tax return purposes at December 31, 2018.

	Tax Credit Carryforwards		
	General Business Credits	Foreign Tax Credits	Other
		(In millions)	
Expiration:			
2019-2023	$ —	$ —	$ —
2024-2028	—	2	—
2029-2033	203	—	—
2034-2038	1,140	—	—
Indefinite	—	23	145
	$ 1,343	$ 25	$ 145

The Company files income tax returns with the U.S. federal government and various U.S. state and local jurisdictions, as well as non-U.S. jurisdictions. The Company is under continuous examination by the IRS and other tax authorities in jurisdictions in which the Company has significant business operations. The income tax years under examination vary by jurisdiction and subsidiary. The Company is no longer subject to U.S. federal, state, or local income tax examinations for years prior to 2007, except for refund claims filed in 2017 with the IRS for 2000 through 2002 to recover tax and interest predominantly related to the disallowance of certain foreign tax credits for which the Company received a statutory notice of deficiency in 2015 and paid the tax thereon. The disallowed foreign tax credits relate to certain non-U.S. investments held by MLIC in support of its life insurance business through a United Kingdom investment subsidiary that was structured as a joint venture until early 2009.

For tax years 2003 through 2006, the Company entered into binding agreements with the IRS under which all remaining issues, including the foreign tax credit matter noted above, for these years were resolved. Accordingly, in the fourth quarter of 2018, the Company recorded a non-cash benefit to net income of $349 million, net of tax, comprised of a $168 million tax benefit recorded in provision for income tax expense (benefit) and a $229 million interest benefit ($181 million, net of tax) included in other expenses. For tax years 2000 through 2002 (which are closed to IRS examination except for the refund claim described above) and 2007 through 2009 (which are the subject of the current IRS examination), the Company has established adequate reserves for tax liabilities. The Company continues to pursue final resolution of disallowed foreign tax credits, as well as related issues, for the open tax years in a manner consistent with the final resolution of such issues for 2003 through 2006. Although the final timing and details of any such resolution remain uncertain, and could be affected by many factors, closure with the IRS for tax years 2000 through 2002, and 2007 through 2009, may occur in 2019. In material non-U.S. jurisdictions, the Company is no longer subject to income tax examinations for years prior to 2011.

18. Income Tax (continued)

The Company's overall liability for unrecognized tax benefits may increase or decrease in the next 12 months. For example, federal tax legislation and regulation could impact unrecognized tax benefits. A reasonable estimate of the increase or decrease cannot be made at this time. However, the Company continues to believe that the ultimate resolution of the pending issues will not result in a material change to its consolidated financial statements, although the resolution of income tax matters could impact the Company's effective tax rate for a particular future period.

A reconciliation of the beginning and ending amount of unrecognized tax benefits was as follows:

	Years Ended December 31,		
	2018	2017	2016
	(In millions)		
Balance at January 1,	$ 1,102	$ 1,146	$ 1,259
Additions for tax positions of prior years (1)	269	70	24
Reductions for tax positions of prior years (2)	(195)	(101)	(112)
Additions for tax positions of current year (1)	226	33	23
Reductions for tax positions of current year	(3)	(3)	—
Settlements with tax authorities (3)	(288)	(43)	(48)
Balance at December 31,	$ 1,111	$ 1,102	$ 1,146
Unrecognized tax benefits that, if recognized, would impact the effective rate	$ 1,046	$ 1,073	$ 1,112

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(1) The increase in 2018 is primarily related to the deemed repatriation transition tax and the IRS issued proposed regulations.

(2) The decrease in 2018 is primarily related to the non-cash benefit from the tax audit settlement discussed above.

(3) The decrease in 2018 is primarily related to the tax audit settlement, of which $284 million was reclassified to the current income tax payable account.

The Company classifies interest accrued related to unrecognized tax benefits in interest expense, included within other expenses, while penalties are included in income tax expense.

Interest was as follows:

	Years Ended December 31,		
	2018	2017	2016
	(In millions)		
Interest expense (benefit) recognized on the consolidated statements of operations (1)	$ (441)	$ 37	$ (41)

	December 31,	
	2018	2017
	(In millions)	
Interest included in other liabilities on the consolidated balance sheets	$ 218	$ 659

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(1) The decrease in 2018 is primarily related to the tax audit settlement, of which $168 million was recorded in other expenses and $273 million was reclassified to the current income tax payable account.

The Company had insignificant penalties for the years ended December 31, 2018, 2017 and 2016.

19. Earnings Per Common Share

The following table presents the weighted average shares, basic earnings per common share and diluted earnings per common share for each income category presented:

	Years Ended December 31,		
	2018	2017	2016
	(In millions, except per share data)		
Weighted Average Shares:			
Weighted average common stock outstanding for basic earnings per common share	1,005.9	1,069.7	1,100.5
Incremental common shares from assumed exercise or issuance of stock-based awards	8.0	8.8	8.0
Weighted average common stock outstanding for diluted earnings per common share	1,013.9	1,078.5	1,108.5
Income (Loss) from Continuing Operations:			
Income (loss) from continuing operations, net of income tax	$ 5,128	$ 5,006	$ 3,588
Less: Income (loss) from continuing operations, net of income tax, attributable to noncontrolling interests	5	10	4
Less: Preferred stock dividends	141	103	103
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders	$ 4,982	$ 4,893	$ 3,481
Basic	$ 4.95	$ 4.57	$ 3.16
Diluted	$ 4.91	$ 4.53	$ 3.13
Income (Loss) from Discontinued Operations:			
Income (loss) from discontinued operations, net of income tax	$ —	$ (986)	$ (2,734)
Less: Income (loss) from discontinued operations, net of income tax, attributable to noncontrolling interests	—	—	—
Income (loss) from discontinued operations, net of income tax, available to MetLife, Inc.'s common shareholders	$ —	$ (986)	$ (2,734)
Basic	$ —	$ (0.92)	$ (2.48)
Diluted	$ —	$ (0.91)	$ (2.46)
Net Income (Loss):			
Net income (loss)	$ 5,128	$ 4,020	$ 854
Less: Net income (loss) attributable to noncontrolling interests	5	10	4
Less: Preferred stock dividends	141	103	103
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 4,982	$ 3,907	$ 747
Basic	$ 4.95	$ 3.65	$ 0.68
Diluted	$ 4.91	$ 3.62	$ 0.67

20. Contingencies, Commitments and Guarantees

Contingencies

Litigation

The Company is a defendant in a large number of litigation matters. Putative or certified class action litigation and other litigation and claims and assessments against the Company, in addition to those discussed below and those otherwise provided for in the Company's consolidated financial statements, have arisen in the course of the Company's business, including, but not limited to, in connection with its activities as an insurer, mortgage lending bank, employer, investor, investment advisor, broker-dealer, and taxpayer.

The Company also receives and responds to subpoenas or other inquiries seeking a broad range of information from state regulators, including state insurance commissioners; state attorneys general or other state governmental authorities; federal regulators, including the SEC; federal governmental authorities, including congressional committees; and the Financial Industry Regulatory Authority, as well as from local and national regulators and government authorities in jurisdictions outside the United States where the Company conducts business. The issues involved in information requests and regulatory matters vary widely, but can include inquiries or investigations concerning the Company's compliance with applicable insurance and other laws and regulations. The Company cooperates in these inquiries.

In some of the matters, very large and/or indeterminate amounts, including punitive and treble damages, are sought. Modern pleading practice in the U.S. permits considerable variation in the assertion of monetary damages or other relief. Jurisdictions may permit claimants not to specify the monetary damages sought or may permit claimants to state only that the amount sought is sufficient to invoke the jurisdiction of the trial court. In addition, jurisdictions may permit plaintiffs to allege monetary damages in amounts well exceeding reasonably possible verdicts in the jurisdiction for similar matters. This variability in pleadings, together with the actual experience of the Company in litigating or resolving through settlement numerous claims over an extended period of time, demonstrates to management that the monetary relief which may be specified in a lawsuit or claim bears little relevance to its merits or disposition value.

It is not possible to predict the ultimate outcome of all pending investigations and legal proceedings. The Company establishes liabilities for litigation and regulatory loss contingencies when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Liabilities have been established for a number of the matters noted below. It is possible that some of the matters could require the Company to pay damages or make other expenditures or establish accruals in amounts that could not be reasonably estimated at December 31, 2018. While the potential future charges could be material in the particular quarterly or annual periods in which they are recorded, based on information currently known to management, management does not believe any such charges are likely to have a material effect on the Company's financial position. Given the large and/or indeterminate amounts sought in certain of these matters and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material effect on the Company's consolidated net income or cash flows in particular quarterly or annual periods.

Matters as to Which an Estimate Can Be Made

For some of the matters disclosed below, the Company is able to estimate a reasonably possible range of loss. For matters where a loss is believed to be reasonably possible, but not probable, the Company has not made an accrual. As of December 31, 2018, the Company estimates the aggregate range of reasonably possible losses in excess of amounts accrued for these matters to be $0 to $550 million.

Matters as to Which an Estimate Cannot Be Made

For other matters disclosed below, the Company is not currently able to estimate the reasonably possible loss or range of loss. The Company is often unable to estimate the possible loss or range of loss until developments in such matters have provided sufficient information to support an assessment of the range of possible loss, such as quantification of a damage demand from plaintiffs, discovery from other parties and investigation of factual allegations, rulings by the court on motions or appeals, analysis by experts, and the progress of settlement negotiations. On a quarterly and annual basis, the Company reviews relevant information with respect to litigation contingencies and updates its accruals, disclosures and estimates of reasonably possible losses or ranges of loss based on such reviews.

Asbestos-Related Claims

MLIC is and has been a defendant in a large number of asbestos-related suits filed primarily in state courts. These suits principally allege that the plaintiff or plaintiffs suffered personal injury resulting from exposure to asbestos and seek both actual and punitive damages. MLIC has never engaged in the business of manufacturing, producing, distributing or selling asbestos or asbestos-containing products nor has MLIC issued liability or workers' compensation insurance to companies in the business of manufacturing, producing, distributing or selling asbestos or asbestos-containing products. The lawsuits principally have focused on allegations with respect to certain research, publication and other activities of one or more of MLIC's employees during the period from the 1920's through approximately the 1950's and allege that MLIC learned or should have learned of certain health risks posed by asbestos and, among other things, improperly publicized or failed to disclose those health risks. MLIC believes that it should not have legal liability in these cases. The outcome of most asbestos litigation matters, however, is uncertain and can be impacted by numerous variables, including differences in legal rulings in various jurisdictions, the nature of the alleged injury and factors unrelated to the ultimate legal merit of the claims asserted against MLIC. MLIC employs a number of resolution strategies to manage its asbestos loss exposure, including seeking resolution of pending litigation by judicial rulings and settling individual or groups of claims or lawsuits under appropriate circumstances.

Claims asserted against MLIC have included negligence, intentional tort and conspiracy concerning the health risks associated with asbestos. MLIC's defenses (beyond denial of certain factual allegations) include that: (i) MLIC owed no duty to the plaintiffs — it had no special relationship with the plaintiffs and did not manufacture, produce, distribute or sell the asbestos products that allegedly injured plaintiffs; (ii) plaintiffs did not rely on any actions of MLIC; (iii) MLIC's conduct was not the cause of the plaintiffs' injuries; (iv) plaintiffs' exposure occurred after the dangers of asbestos were known; and (v) the applicable time with respect to filing suit has expired. During the course of the litigation, certain trial courts have granted motions dismissing claims against MLIC, while other trial courts have denied MLIC's motions. There can be no assurance that MLIC will receive favorable decisions on motions in the future. While most cases brought to date have settled, MLIC intends to continue to defend aggressively against claims based on asbestos exposure, including defending claims at trials.

The approximate total number of asbestos personal injury claims pending against MLIC as of the dates indicated, the approximate number of new claims during the years ended on those dates and the approximate total settlement payments made to resolve asbestos personal injury claims at or during those years are set forth in the following table:

	December 31,		
	2018	2017	2016
	(In millions, except number of claims)		
Asbestos personal injury claims at year end	62,522	62,930	67,223
Number of new claims during the year	3,359	3,514	4,146
Settlement payments during the year (1)	$ 51.4	$ 48.6	$ 50.2

(1) Settlement payments represent payments made by MLIC during the year in connection with settlements made in that year and in prior years. Amounts do not include MLIC's attorneys' fees and expenses.

The number of asbestos cases that may be brought, the aggregate amount of any liability that MLIC may incur, and the total amount paid in settlements in any given year are uncertain and may vary significantly from year to year.

The ability of MLIC to estimate its ultimate asbestos exposure is subject to considerable uncertainty, and the conditions impacting its liability can be dynamic and subject to change. The availability of reliable data is limited and it is difficult to predict the numerous variables that can affect liability estimates, including the number of future claims, the cost to resolve claims, the disease mix and severity of disease in pending and future claims, the impact of the number of new claims filed in a particular jurisdiction and variations in the law in the jurisdictions in which claims are filed, the possible impact of tort reform efforts, the willingness of courts to allow plaintiffs to pursue claims against MLIC when exposure to asbestos took place after the dangers of asbestos exposure were well known, and the impact of any possible future adverse verdicts and their amounts.

20. Contingencies, Commitments and Guarantees (continued)

The ability to make estimates regarding ultimate asbestos exposure declines significantly as the estimates relate to years further in the future. In the Company's judgment, there is a future point after which losses cease to be probable and reasonably estimable. It is reasonably possible that the Company's total exposure to asbestos claims may be materially greater than the asbestos liability currently accrued and that future charges to income may be necessary. While the potential future charges could be material in the particular quarterly or annual periods in which they are recorded, based on information currently known by management, management does not believe any such charges are likely to have a material effect on the Company's financial position.

The Company believes adequate provision has been made in its consolidated financial statements for all probable and reasonably estimable losses for asbestos-related claims. MLIC's recorded asbestos liability is based on its estimation of the following elements, as informed by the facts presently known to it, its understanding of current law and its past experiences: (i) the probable and reasonably estimable liability for asbestos claims already asserted against MLIC, including claims settled but not yet paid; (ii) the probable and reasonably estimable liability for asbestos claims not yet asserted against MLIC, but which MLIC believes are reasonably probable of assertion; and (iii) the legal defense costs associated with the foregoing claims. Significant assumptions underlying MLIC's analysis of the adequacy of its recorded liability with respect to asbestos litigation include: (i) the number of future claims; (ii) the cost to resolve claims; and (iii) the cost to defend claims.

MLIC reevaluates on a quarterly and annual basis its exposure from asbestos litigation, including studying its claims experience, reviewing external literature regarding asbestos claims experience in the United States, assessing relevant trends impacting asbestos liability and considering numerous variables that can affect its asbestos liability exposure on an overall or per claim basis. These variables include bankruptcies of other companies involved in asbestos litigation, legislative and judicial developments, the number of pending claims involving serious disease, the number of new claims filed against it and other defendants and the jurisdictions in which claims are pending. Based upon its regular reevaluation of its exposure from asbestos litigation, MLIC has updated its recorded liability for asbestos-related claims to $502 million at December 31, 2018.

In the Matter of Chemform, Inc. Site, Pompano Beach, Broward County, Florida

In July 2010, the Environmental Protection Agency ("EPA") advised MLIC that it believed payments were due under two settlement agreements, known as "Administrative Orders on Consent," that New England Mutual Life Insurance Company ("New England Mutual") signed in 1989 and 1992 with respect to the cleanup of a Superfund site in Florida (the "Chemform Site"). The EPA originally contacted MLIC (as successor to New England Mutual) and a third party in 2001, and advised that they owed additional clean-up costs for the Chemform Site. The matter was not resolved at that time. In September 2012, the EPA, MLIC and the third party executed an Administrative Order on Consent under which MLIC and the third party agreed to be responsible for certain environmental testing at the Chemform Site. The EPA may seek additional costs if the environmental testing identifies issues. The EPA and MLIC have reached a settlement in principle on the EPA's claim for past costs. The Company estimates that the aggregate cost to resolve this matter, including the settlement for claims of past costs and the costs of environmental testing, will not exceed $300 thousand.

Sun Life Assurance Company of Canada Indemnity Claim

In 2006, Sun Life Assurance Company of Canada ("Sun Life"), as successor to the purchaser of MLIC's Canadian operations, filed a lawsuit in Toronto, seeking a declaration that MLIC remains liable for "market conduct claims" related to certain individual life insurance policies sold by MLIC that were subsequently transferred to Sun Life. In January 2010, the court found that Sun Life had given timely notice of its claim for indemnification but, because it found that Sun Life had not yet incurred an indemnifiable loss, granted MLIC's motion for summary judgment. In September 2010, Sun Life notified MLIC that a purported class action lawsuit was filed against Sun Life in Toronto alleging sales practices claims regarding the policies sold by MLIC and transferred to Sun Life (the "Ontario Litigation"). On August 30, 2011, Sun Life notified MLIC that another purported class action lawsuit was filed against Sun Life in Vancouver, BC alleging sales practices claims regarding certain of the same policies sold by MLIC and transferred to Sun Life. Sun Life contends that MLIC is obligated to indemnify Sun Life for some or all of the claims in these lawsuits. In September 2018, the Court of Appeal for Ontario affirmed the lower court's decision to not certify the sales practices claims in the Ontario Litigation. These sales practices cases against Sun Life are ongoing, and the Company is unable to estimate the reasonably possible loss or range of loss arising from this litigation.

20. Contingencies, Commitments and Guarantees (continued)

City of Westland Police and Fire Retirement System v. MetLife, Inc., et. al. (S.D.N.Y., filed January 12, 2012)

Plaintiff filed this class action on behalf of a class of persons who either purchased MetLife, Inc. common shares between February 9, 2011, and October 6, 2011, or purchased or acquired MetLife, Inc. common stock in the Company's August 3, 2010 offering or the Company's March 4, 2011 offering. Plaintiff alleges that MetLife, Inc. and several current and former directors and executive officers of MetLife, Inc. violated the Securities Act of 1933, as well as the Exchange Act and Rule 10b-5 promulgated thereunder by issuing, or causing MetLife, Inc. to issue, materially false and misleading statements concerning MetLife, Inc.'s potential liability for millions of dollars in insurance benefits that should have purportedly been paid to beneficiaries or escheated to the states. Plaintiff seeks unspecified compensatory damages and other relief. The defendants intend to defend this action vigorously.

Owens v. Metropolitan Life Insurance Company (N.D. Ga., filed April 17, 2014)

Plaintiff filed this class action lawsuit on behalf of persons for whom MLIC established a Total Control Account ("TCA") to pay death benefits under an ERISA plan. The action alleges that MLIC's use of the TCA as the settlement option for life insurance benefits under some group life insurance policies violates MLIC's fiduciary duties under ERISA. As damages, plaintiff seeks disgorgement of profits that MLIC realized on accounts owned by members of the class. In addition, plaintiff, on behalf of a subgroup of the class, seeks interest under Georgia's delayed settlement interest statute, alleging that the use of the TCA as the settlement option did not constitute payment. On September 27, 2016, the court denied MLIC's summary judgment motion in full and granted plaintiff's partial summary judgment motion. On September 29, 2017, the court certified a nationwide class. The court also certified a Georgia subclass. The Company intends to defend this action vigorously.

Voshall v. Metropolitan Life Insurance Company (Superior Court of the State of California, County of Los Angeles, April 8, 2015)

Plaintiff filed this putative class action lawsuit on behalf of himself and all persons covered under a long-term group disability income insurance policy issued by MLIC to public entities in California between April 8, 2011 and April 8, 2015. Plaintiff alleges that MLIC improperly reduced benefits by including cost of living adjustments and employee paid contributions in the employer retirement benefits and other income that reduces the benefit payable under such policies. Plaintiff asserts causes of action for declaratory relief, violation of the California Business & Professions Code, breach of contract and breach of the implied covenant of good faith and fair dealing. The parties reached a settlement, which the court approved on January 3, 2019.

Martin v. Metropolitan Life Insurance Company, (Superior Court of the State of California, County of Contra Costa, filed December 17, 2015)

Plaintiffs filed this putative class action lawsuit on behalf of themselves and all California persons who have been charged compound interest by MLIC in life insurance policy and/or premium loan balances within the last four years. Plaintiffs allege that MLIC has engaged in a pattern and practice of charging compound interest on life insurance policy and premium loans without the borrower authorizing such compounding, and that this constitutes an unlawful business practice under California law. Plaintiffs assert causes of action for declaratory relief, violation of California's Unfair Competition Law and Usury Law, and unjust enrichment. Plaintiffs seek declaratory and injunctive relief, restitution of interest, and damages in an unspecified amount. On April 12, 2016, the court granted MLIC's motion to dismiss. Plaintiffs appealed this ruling to the United States Court of Appeals for the Ninth Circuit. The Company intends to defend this action vigorously.

Newman v. Metropolitan Life Insurance Company (N.D. Ill., filed March 23, 2016)

Plaintiff filed this putative class action alleging causes of action for breach of contract, fraud, and violations of the Illinois Consumer Fraud and Deceptive Business Practices Act, on behalf of herself and all persons over age 65 who selected a Reduced Pay at Age 65 payment feature on their long-term care insurance policies and whose premium rates were increased after age 65. Plaintiff seeks unspecified compensatory, statutory and punitive damages, as well as recessionary and injunctive relief. On April 12, 2017, the court granted MLIC's motion to dismiss the action. Plaintiff appealed this ruling and the United States Court of Appeals for the Seventh Circuit reversed and remanded the case to the district court for further proceedings. The Company intends to defend this action vigorously.

20. Contingencies, Commitments and Guarantees (continued)

Julian & McKinney v. Metropolitan Life Insurance Company (S.D.N.Y., filed February 9, 2017)

Plaintiffs filed this putative class and collective action on behalf of themselves and all current and former long-term disability ("LTD") claims specialists between February 2011 and the present for alleged wage and hour violations under the Fair Labor Standards Act, the New York Labor Law, and the Connecticut Minimum Wage Act. The suit alleges that MetLife improperly reclassified the plaintiffs and similarly situated LTD claims specialists from non-exempt to exempt from overtime pay in November 2013. As a result, they and members of the putative class were no longer eligible for overtime pay even though they allege they continued to work more than 40 hours per week. Plaintiffs seek unspecified compensatory and punitive damages, as well as other relief. On March 22, 2018, the Court conditionally certified the case as a collective action, requiring that notice be mailed to LTD claims specialists who worked for the Company from February 8, 2014 to the present. The Company intends to defend this action vigorously.

Total Asset Recovery Services, LLC. v. MetLife, Inc., et al. (Supreme Court of the State of New York, County of New York, filed December 27, 2017)

Total Asset Recovery Services ("The Relator") brought an action under the qui tam provision of the New York False Claims Act (the "Act") on behalf of itself and the State of New York. The Relator originally filed this action under seal in 2010, and the complaint was unsealed on December 19, 2017. The Relator alleges that MetLife, Inc., MLIC, and several other insurance companies violated the Act by filing false unclaimed property reports with the State of New York from 1986 to 2017, to avoid having to escheat the proceeds of more than 25,000 life insurance policies, including policies for which the defendants escheated funds as part of their demutualizations in the late 1990s. The Relator seeks treble damages and other relief. The Company intends to defend this action vigorously.

Regulatory and Litigation Matters Related to Group Annuity Benefits

In 2018, the Company announced that it identified a material weakness in its internal control over financial reporting related to the practices and procedures for estimating reserves for certain group annuity benefits. The Company is exposed to lawsuits and regulatory investigations, and could be exposed to additional legal actions relating to these issues. These may result in payments, including damages, fines, penalties, interest and other amounts assessed or awarded by courts or regulatory authorities under applicable escheat, tax, securities, ERISA, or other laws or regulations. The Company could incur significant costs in connection with these actions.

Regulatory Matters

The New York Department of Financial Services examined these issues and other unrelated issues as part of its quinquennial exam and entered into a consent order with MLIC on January 28, 2019. The Division of Enforcement of the SEC is also investigating this issue and several additional regulators have made similar inquiries. It is possible that other jurisdictions may pursue similar investigations or inquiries.

In the Matter of MetLife, Inc. (Mass. Sec. Div., filed June 25, 2018)

The Enforcement Section of the Massachusetts Securities Division of the Office of the Secretary of the Commonwealth (the "MSD") filed an administrative complaint in order to commence an adjudicatory proceeding against the Company for alleged violations of Section 101 of the Massachusetts Uniform Securities Act and regulations promulgated thereunder, alleging that the Company made materially misleading statements regarding the sufficiency of its reserves related to group annuity contracts and the effectiveness of its internal control over financial reporting. The Company settled this matter with the MSD on December 18, 2018.

Litigation Matters

Parchmann v. MetLife, Inc., et. al. (E.D.N.Y., filed February 5, 2018)

Plaintiff filed this putative class action seeking to represent a class of persons who purchased MetLife, Inc. common stock from February 27, 2013 through January 29, 2018. Plaintiff alleges that MetLife, Inc., its Chief Executive Officer and Chairman of the Board, and its Chief Financial Officer violated Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder by issuing materially false and/or misleading financial statements. Plaintiff alleges that MetLife's practices and procedures for estimating reserves for certain group annuity benefits were inadequate, and that MetLife had inadequate internal control over financial reporting. Plaintiff seeks unspecified compensatory damages and other relief. Defendants intend to defend this action vigorously.

20. Contingencies, Commitments and Guarantees (continued)

Roycroft v. MetLife, Inc., et al. (S.D.N.Y., filed June 18, 2018)

Plaintiff filed this putative class action on behalf of all persons due benefits under group annuity contracts but who did not receive the entire amount to which they were entitled. Plaintiff asserts claims for unjust enrichment, accounting, and restitution based on allegations that the Company failed to timely pay annuity benefits to certain group annuitants. Plaintiff seeks declaratory and injunctive relief, as well as unspecified compensatory and punitive damages, and other relief. The court dismissed this matter as to all defendants on January 15, 2019.

Derivative Action and Demands

Kates v. Kandarian, et al. (E.D.N.Y., filed January 18, 2019)

A shareholder seeking to sue derivatively on behalf of MetLife, Inc. commenced an action in federal court against members of the MetLife, Inc. Board of Directors. Plaintiff asserts claims for breach of fiduciary duty, gross mismanagement, waste of corporate assets, as well as securities fraud claims. Plaintiff alleges that the defendants disseminated or approved public statements that failed to disclose that MetLife's practices and procedures for estimating reserves for certain group annuity benefits were inadequate, and that MetLife had inadequate internal control over financial reporting. Plaintiffs allege that because of the defendants' breaches of duty, MetLife, Inc. has incurred damage to its reputation and has suffered other unspecified damages. The defendants intend to defend this action vigorously.

Demands

The MetLife, Inc. Board of Directors received five letters, dated March 28, 2018, May 11, 2018, July 16, 2018, December 20, 2018 and February 5, 2019, written on behalf of individual stockholders, demanding that MetLife, Inc. take action against current and former directors and officers for alleged breaches of fiduciary duty and/or investigate, remediate, and recover damages allegedly suffered by the Company as a result of (i) the Company's allegedly inadequate practices and procedures for estimating reserves for certain group annuity benefits, (ii) the Company's allegedly inadequate internal controls over financial reporting and corporate governance practices and procedures, and (iii) the alleged dissemination of false or misleading information related to these issues. The MetLife, Inc. Board of Directors appointed a special committee to investigate the allegations set forth in these five letters.

Regulatory Inquiry Related to Assumed Variable Annuity Guarantee Reserves

In 2018, the Company announced that it identified a material weakness in its internal control over financial reporting related to the calculation of reserves associated with certain variable annuity guarantees assumed from the former operating joint venture in Japan. The Division of Enforcement of the SEC is investigating this issue and the Company has informed other regulators. It is possible that other regulators may pursue similar investigations or inquiries. The Company is exposed to lawsuits and regulatory investigations, and could be exposed to additional legal actions relating to these issues. These may result in payments, including damages, fines, penalties, interest and other amounts assessed or awarded by courts or regulatory authorities under applicable laws or regulations. The Company could incur significant costs in connection with these actions.

Insolvency Assessments

Many jurisdictions in which the Company is admitted to transact business require insurers doing business within the jurisdiction to participate in guaranty associations, which are organized to pay contractual benefits owed pursuant to insurance policies issued by impaired, insolvent or failed insurers or those that may become impaired, insolvent or fail. These associations levy assessments, up to prescribed limits, on all member insurers in a particular jurisdiction on the basis of the proportionate share of the premiums written by member insurers in the lines of business in which the impaired, insolvent or failed insurer engaged. In addition, certain jurisdictions have government owned or controlled organizations providing life, health and property and casualty insurance to their citizens, whose activities could place additional stress on the adequacy of guaranty fund assessments. Many of these organizations have the power to levy assessments similar to those of the guaranty associations. Some jurisdictions permit member insurers to recover assessments paid through full or partial premium tax offsets.

20. Contingencies, Commitments and Guarantees (continued)

Assets and liabilities held for insolvency assessments were as follows:

	December 31, 2018	December 31, 2017
	(In millions)	
Other Assets:		
Premium tax offset for future discounted and undiscounted assessments	$ 47	$ 56
Premium tax offset currently available for paid assessments	46	50
Total	$ 93	$ 106
Other Liabilities:		
Insolvency assessments	$ 67	$ 75

Commitments

Leases

The Company, as lessee, has entered into various lease and sublease agreements for office space and equipment. Future minimum gross rental payments relating to these lease arrangements are as follows:

	Amount
	(In millions)
2019	$ 292
2020	282
2021	260
2022	224
2023	209
Thereafter	859
Total	$ 2,126

Operating lease expense was $342 million, $374 million and $383 million for the years ended December 31, 2018, 2017 and 2016, respectively. Total minimum rental payments to be received in the future under non-cancelable subleases were $645 million as of December 31, 2018. Non-cancelable sublease income was $72 million, $46 million and $21 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Mortgage Loan Commitments

The Company commits to lend funds under mortgage loan commitments. The amounts of these mortgage loan commitments were $4.0 billion and $3.4 billion at December 31, 2018 and 2017, respectively.

Commitments to Fund Partnership Investments, Bank Credit Facilities, Bridge Loans and Private Corporate Bond Investments

The Company commits to fund partnership investments and to lend funds under bank credit facilities, bridge loans and private corporate bond investments. The amounts of these unfunded commitments were $7.7 billion and $6.1 billion at December 31, 2018 and 2017, respectively.

20. Contingencies, Commitments and Guarantees (continued)

Guarantees

In the normal course of its business, the Company has provided certain indemnities, guarantees and commitments to third parties such that it may be required to make payments now or in the future. In the context of acquisition, disposition, investment and other transactions, the Company has provided indemnities and guarantees, including those related to tax, environmental and other specific liabilities and other indemnities and guarantees that are triggered by, among other things, breaches of representations, warranties or covenants provided by the Company. In addition, in the normal course of business, the Company provides indemnifications to counterparties in contracts with triggers similar to the foregoing, as well as for certain other liabilities, such as third-party lawsuits. These obligations are often subject to time limitations that vary in duration, including contractual limitations and those that arise by operation of law, such as applicable statutes of limitation. In some cases, the maximum potential obligation under the indemnities and guarantees is subject to a contractual limitation ranging from less than $1 million to $329 million, with a cumulative maximum of $778 million, while in other cases such limitations are not specified or applicable. Since certain of these obligations are not subject to limitations, the Company does not believe that it is possible to determine the maximum potential amount that could become due under these guarantees in the future. Management believes that it is unlikely the Company will have to make any material payments under these indemnities, guarantees, or commitments.

In addition, the Company indemnifies its directors and officers as provided in its charters and by-laws. Also, the Company indemnifies its agents for liabilities incurred as a result of their representation of the Company's interests. Since these indemnities are generally not subject to limitation with respect to duration or amount, the Company does not believe that it is possible to determine the maximum potential amount that could become due under these indemnities in the future.

The Company also has minimum fund yield requirements on certain pension funds. Since these guarantees are not subject to limitation with respect to duration or amount, the Company does not believe that it is possible to determine the maximum potential amount that could become due under these guarantees in the future.

The Company's recorded liabilities were $7 million and $5 million at December 31, 2018 and 2017, respectively, for indemnities, guarantees and commitments.

MetLife, Inc.

Notes to the Consolidated Financial Statements — (continued)

21. Quarterly Results of Operations (Unaudited)

The unaudited quarterly results of operations for 2018 and 2017 are summarized in the table below:

	Three Months Ended			
	March 31,	June 30,	September 30,	December 31,
	(In millions, except per share data)			
2018				
Total revenues	$ 14,805	$ 21,185	$ 16,289	$ 15,662
Total expenses	$ 13,149	$ 20,084	$ 15,210	$ 13,191
Income (loss) from continuing operations, net of income tax	$ 1,257	$ 894	$ 915	$ 2,062
Income (loss) from discontinued operations, net of income tax	$ —	$ —	$ —	$ —
Net income (loss)	$ 1,257	$ 894	$ 915	$ 2,062
Less: Net income (loss) attributable to noncontrolling interests	$ 4	$ 3	$ 3	$ (5)
Net income (loss) attributable to MetLife, Inc.	$ 1,253	$ 891	$ 912	$ 2,067
Less: Preferred stock dividends	$ 6	$ 46	$ 32	$ 57
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1,247	$ 845	$ 880	$ 2,010
Basic earnings per common share				
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders	$ 1.20	$ 0.83	$ 0.89	$ 2.05
Income (loss) from discontinued operations, net of income tax, attributable to MetLife, Inc.	$ —	$ —	$ —	$ —
Net income (loss) attributable to MetLife, Inc.	$ 1.21	$ 0.88	$ 0.92	$ 2.11
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1.20	$ 0.83	$ 0.89	$ 2.05
Diluted earnings per common share				
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders	$ 1.19	$ 0.83	$ 0.88	$ 2.04
Income (loss) from discontinued operations, net of income tax, attributable to MetLife, Inc.	$ —	$ —	$ —	$ —
Net income (loss) attributable to MetLife, Inc.	$ 1.20	$ 0.87	$ 0.91	$ 2.09
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1.19	$ 0.83	$ 0.88	$ 2.04
2017				
Total revenues	$ 14,964	$ 15,333	$ 16,171	$ 15,840
Total expenses	$ 13,892	$ 14,315	$ 15,686	$ 14,879
Income (loss) from continuing operations, net of income tax	$ 952	$ 856	$ 883	$ 2,315
Income (loss) from discontinued operations, net of income tax	$ (76)	$ 58	$ (968)	$ —
Net income (loss)	$ 876	$ 914	$ (85)	$ 2,315
Less: Net income (loss) attributable to noncontrolling interests	$ 3	$ 3	$ 6	$ (2)
Net income (loss) attributable to MetLife, Inc.	$ 873	$ 911	$ (91)	$ 2,317
Less: Preferred stock dividends	$ 6	$ 46	$ 6	$ 45
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 867	$ 865	$ (97)	$ 2,272
Basic earnings per common share				
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders	$ 0.87	$ 0.76	$ 0.82	$ 2.16
Income (loss) from discontinued operations, net of income tax, attributable to MetLife, Inc.	$ (0.07)	$ 0.05	$ (0.91)	$ —
Net income (loss) attributable to MetLife, Inc.	$ 0.80	$ 0.86	$ (0.09)	$ 2.20
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 0.80	$ 0.81	$ (0.09)	$ 2.16
Diluted earnings per common share				
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders	$ 0.86	$ 0.75	$ 0.81	$ 2.14
Income (loss) from discontinued operations, net of income tax, attributable to MetLife, Inc.	$ (0.07)	$ 0.05	$ (0.90)	$ —
Net income (loss) attributable to MetLife, Inc.	$ 0.79	$ 0.85	$ (0.08)	$ 2.18
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 0.79	$ 0.80	$ (0.09)	$ 2.14

22. Subsequent Events

Preferred Stock Dividends

On February 15, 2019, MetLife, Inc. announced a first quarter 2019 dividend of $0.25 per share, for a total of $6 million, on its Series A preferred stock, subject to the final confirmation that it has met the financial tests specified in the certificate of designation for the Series A preferred stock, which the Company anticipates will be made and announced on or about March 5, 2019. The dividend will be payable on March 15, 2019 to shareholders of record as of February 28, 2019.

On February 15, 2019, MetLife, Inc. announced a first quarter 2019 dividend of $29.375 per share, for a total of $15 million, on its Series D preferred stock, and $351.563 per share, for a total of $11 million, on its Series E preferred stock. Both dividends will be payable on March 15, 2019 to shareholders of record as of February 28, 2019.

Common Stock Repurchases

In 2019, through February 14, 2019, MetLife, Inc. repurchased 1,947,100 shares of its common stock in the open market for $85 million.

Common Stock Dividend

On January 7, 2019, the MetLife, Inc. Board of Directors declared a first quarter 2019 common stock dividend of $0.42 per share payable on March 13, 2019 to shareholders of record as of February 5, 2019. The Company estimates that the aggregate dividend payment will be $404 million.

MetLife, Inc.

Schedule I

**Consolidated Summary of Investments —
Other Than Investments in Related Parties
December 31, 2018**

(In millions)

Types of Investments	Cost or Amortized Cost (1)	Estimated Fair Value	Amount at Which Shown on Balance Sheet
Fixed maturity securities AFS:			
Bonds:			
Foreign government	$ 56,353	$ 62,288	$ 62,288
U.S. government and agency	37,030	39,322	39,322
Public utilities	12,430	13,075	13,075
Municipals	10,376	11,533	11,533
All other corporate bonds	120,505	121,423	121,423
Total bonds	236,694	247,641	247,641
Mortgage-backed and asset-backed securities	49,006	49,471	49,471
Redeemable preferred stock	1,116	1,153	1,153
Total fixed maturity securities AFS	286,816	298,265	298,265
Unit-linked and FVO Securities	11,809	12,616	12,616
Equity securities:			
Common stock:			
Industrial, miscellaneous and all other	667	827	827
Banks, trust and insurance companies	67	119	119
Public utilities	102	91	91
Non-redeemable preferred stock	422	403	403
Total equity securities	1,258	1,440	1,440
Mortgage loans	75,752		75,752
Policy loans	9,699		9,699
Real estate and real estate joint ventures	9,653		9,653
Real estate acquired in satisfaction of debt	45		45
Other limited partnership interests	6,613		6,613
Short-term investments	3,937		3,937
Other invested assets	18,190		18,190
Total investments	$ 423,772		$ 436,210

(1) The Unit-linked and FVO Securities are primarily equity securities (including mutual funds) and fixed maturity securities AFS. Amortized cost for fixed maturity securities AFS and mortgage loans represents original cost reduced by repayments, valuation allowances and impairments from other-than-temporary declines in estimated fair value that are charged to earnings and adjusted for amortization of premium or accretion of discount; for equity securities, cost represents original cost; for real estate, cost represents original cost reduced by impairments and depreciation; for real estate joint ventures and other limited partnership interests, cost represents original cost reduced for impairments or original cost adjusted for equity in earnings and distributions.

MetLife, Inc.

Schedule II

Condensed Financial Information
(Parent Company Only)
December 31, 2018 and 2017

(In millions, except share and per share data)

	2018	2017
Condensed Balance Sheets		
Assets		
Investments:		
Fixed maturity securities available-for-sale, at estimated fair value (amortized cost: $2,745 and $4,520, respectively)	$ 2,726	$ 4,510
Fair value option securities, at estimated fair value	—	1,357
Short-term investments, principally at estimated fair value	16	30
Other invested assets, at estimated fair value	87	127
Total investments	2,829	6,024
Cash and cash equivalents	376	516
Accrued investment income	53	24
Investment in subsidiaries	66,567	73,274
Loans to subsidiaries	100	100
Other assets	843	1,153
Total assets	$ 70,768	$ 81,091
Liabilities and Stockholders' Equity		
Liabilities		
Payables for collateral under derivatives transactions	$ 9	$ 36
Long-term debt — unaffiliated	11,844	14,599
Long-term debt — affiliated	1,957	2,000
Junior subordinated debt securities	2,456	2,454
Other liabilities	1,761	3,326
Total liabilities	18,027	22,415
Stockholders' Equity		
Preferred stock, par value $0.01 per share; $3,405 and $2,100 aggregate liquidation preference, respectively	—	—
Common stock, par value $0.01 per share; 3,000,000,000 shares authorized; 1,171,824,242 and 1,168,710,101 shares issued, respectively; 958,613,542 and 1,043,588,396 shares outstanding, respectively	12	12
Additional paid-in capital	32,474	31,111
Retained earnings	28,926	26,527
Treasury stock, at cost; 213,210,700 and 125,121,705 shares, respectively	(10,393)	(6,401)
Accumulated other comprehensive income (loss)	1,722	7,427
Total stockholders' equity	52,741	58,676
Total liabilities and stockholders' equity	$ 70,768	$ 81,091

See accompanying notes to the condensed financial information.

MetLife, Inc.

Schedule II

Condensed Financial Information — (continued)
(Parent Company Only)
For the Years Ended December 31, 2018, 2017 and 2016

(In millions)

	2018	2017	2016
Condensed Statements of Operations			
Revenues			
Equity in earnings of subsidiaries	$ 6,466	$ 7,162	$ 1,833
Net investment income	87	101	129
Other revenues	19	59	151
Net investment gains (losses)	(277)	(1,142)	86
Net derivative gains (losses)	(56)	(186)	(68)
Total revenues	6,239	5,994	2,131
Expenses			
Interest expense	1,009	1,108	1,152
Goodwill impairment	—	—	147
Termination of financing arrangements	—	294	2
Other expenses	158	657	388
Total expenses	1,167	2,059	1,689
Income (loss) before provision for income tax	5,072	3,935	442
Provision for income tax expense (benefit)	(51)	(75)	(408)
Net income (loss)	5,123	4,010	850
Less: Preferred stock dividends	141	103	103
Net income (loss) available to common shareholders	$ 4,982	$ 3,907	$ 747
Comprehensive income (loss)	$ (1,494)	$ 7,391	$ 1,449

See accompanying notes to the condensed financial information.

MetLife, Inc.

Schedule II

Condensed Financial Information — (continued)
(Parent Company Only)
For the Years Ended December 31, 2018, 2017 and 2016

(In millions)

	2018	2017	2016
Condensed Statements of Cash Flows			
Cash flows from operating activities			
Net income (loss)	$ 5,123	$ 4,010	$ 850
Earnings of subsidiaries	(6,466)	(7,162)	(1,833)
Dividends from subsidiaries	7,367	6,745	4,470
(Gains) losses on investments and from sales of businesses, net	277	1,142	(86)
Goodwill impairment	—	—	147
Tax separation agreement charge	—	1,093	—
Other, net	(807)	634	199
Net cash provided by (used in) operating activities	5,494	6,462	3,747
Cash flows from investing activities			
Sales of fixed maturity securities available-for-sale	9,635	7,217	8,603
Purchases of fixed maturity securities available-for-sale	(8,178)	(7,733)	(7,409)
Cash received in connection with freestanding derivatives	227	452	311
Cash paid in connection with freestanding derivatives	(237)	(629)	(561)
Sales of businesses	—	—	291
Expense paid on behalf of subsidiaries	(14)	(42)	(68)
Receipts on loans to subsidiaries	—	—	140
Issuances of loans to subsidiaries	—	—	(140)
Returns of capital from subsidiaries	87	610	80
Capital contributions to subsidiaries	(767)	(339)	(1,733)
Net change in short-term investments	14	118	120
Other, net	(3)	(14)	(18)
Net cash provided by (used in) investing activities	764	(360)	(384)
Cash flows from financing activities			
Net change in payables for collateral under derivative transactions	(27)	(111)	(80)
Long-term debt repaid	(1,759)	(1,000)	(1,250)
Fees paid for the termination of a committed facility related to Separation	—	(244)	(2)
Treasury stock acquired in connection with share repurchases	(3,992)	(2,927)	(372)
Preferred stock issued, net of issuance costs	1,274	—	—
Dividends on preferred stock	(141)	(103)	(103)
Dividends on common stock	(1,678)	(1,717)	(1,736)
Other, net	(75)	182	93
Net cash provided by (used in) financing activities	(6,398)	(5,920)	(3,450)
Change in cash and cash equivalents	(140)	182	(87)
Cash and cash equivalents, beginning of year	516	334	421
Cash and cash equivalents, end of year	$ 376	$ 516	$ 334

MetLife, Inc.

Schedule II

Condensed Financial Information — (continued)
(Parent Company Only)
For the Years Ended December 31, 2018, 2017 and 2016

(In millions)

	2018	2017	2016
Supplemental disclosures of cash flow information			
Net cash paid (received) for:			
Interest	$ 1,040	$ 1,096	$ 1,146
Income tax:			
Amounts paid to (received from) subsidiaries, net	$ (33)	$ (1,552)	$ (569)
Amounts paid to Brighthouse in accordance with the tax separation agreement	909	729	—
Income tax paid (received) by MetLife, Inc., net	1	(37)	136
Total income tax, net	$ 877	$ (860)	$ (433)
Non-cash transactions:			
Dividends from subsidiary	$ —	$ —	$ 2,652
Returns of capital from subsidiaries	$ 3,844	$ 17,518	$ 372
Capital contributions to subsidiaries	$ 3,844	$ 15,655	$ 157
Distribution of Brighthouse	$ —	$ 10,346	$ —
Allocation of interest expense to subsidiary	$ —	$ 15	$ 39
Allocation of interest income to subsidiary	$ —	$ 4	$ 54
Brighthouse common stock exchange transaction (Note 3):			
Reduction of long-term debt	$ 944	$ —	$ —
Reduction of fair value option securities	$ 1,030	$ —	$ —

MetLife, Inc.

Schedule II

Notes to the Condensed Financial Information
(Parent Company Only)

1. Basis of Presentation

The condensed financial information of MetLife, Inc. (the "Parent Company") should be read in conjunction with the consolidated financial statements of MetLife, Inc. and its subsidiaries and the notes thereto (the "Consolidated Financial Statements"). These condensed unconsolidated financial statements reflect the results of operations, financial position and cash flows for MetLife, Inc. Investments in subsidiaries are accounted for using the equity method of accounting.

The preparation of these condensed unconsolidated financial statements in conformity with GAAP requires management to adopt accounting policies and make certain estimates and assumptions. The most important of these estimates and assumptions relate to the fair value measurements, the accounting for goodwill and identifiable intangible assets and the provision for potential losses that may arise from litigation and regulatory proceedings and tax audits, which may affect the amounts reported in the condensed unconsolidated financial statements and accompanying notes. Actual results could differ from these estimates.

2. Investment in Subsidiaries

On August 3, 2017, Brighthouse Financial, Inc. paid a cash dividend to MetLife, Inc. of $1.8 billion in connection with the Separation.

In December 2016, MLIC transferred the issued and outstanding shares of the common stock of each of NELICO and GALIC to MetLife, Inc. in the form of a non-cash extraordinary dividend of $2.7 billion.

In February 2016, MetLife, Inc. paid a cash capital contribution of $1.5 billion to Brighthouse Insurance in connection with the Separation.

In December 2015, MetLife, Inc. accrued $50 million, $45 million and $25 million in capital contributions payable to the following captive reinsurers: MRV, MetLife Reinsurance Company of Delaware ("MRD") and MRSC, respectively, which were included in payables to subsidiaries at December 31, 2015. The payables were settled for cash in February 2016.

3. Loans to Subsidiaries

MetLife, Inc. lends funds as necessary, through credit agreements or otherwise to its subsidiaries, some of which are regulated, to meet their capital requirements or to provide liquidity. Payments of interest and principal on surplus notes of regulated subsidiaries, which are subordinate to all other obligations of the issuing company, may be made only with the prior approval of the insurance department of the state of domicile.

In April 2017, in connection with the Separation, MetLife, Inc. repaid $750 million and $350 million senior notes to MRD due September 2032 and December 2033, respectively, in an exchange transaction. The $750 million senior note bore interest at a fixed rate of 4.21% and the $350 million senior note bore interest at a fixed rate of 5.10%. Simultaneously, MRD repaid $750 million and $350 million surplus notes to MetLife, Inc. The $750 million surplus note bore interest at a fixed rate of 5.13% and the $350 million surplus note bore interest at a fixed rate of 6.00% (the "MRD Notes Exchange").

In April 2016, American Life issued a $140 million short-term note to MetLife, Inc. which was repaid in July 2016. The short-term note bore interest at six-month LIBOR plus 1.00%.

Interest income earned on loans to subsidiaries of $3 million, $44 million and $64 million for the years ended December 31, 2018, 2017 and 2016, respectively, is included in net investment income.

MetLife, Inc.

Schedule II

Notes to the Condensed Financial Information — (continued)

4. Long-term Debt

Long-term debt outstanding was as follows:

	Interest Rates (1)		Maturity	December 31,	
	Range	Weighted Average		2018	2017
			(Dollars in millions)		
Senior notes — unaffiliated (2)	3.00% - 6.50%	4.96%	2020 - 2046	$ 11,844	$ 14,599
Senior notes — affiliated	0.82% - 3.14%	2.16%	2019 - 2021	1,957	2,000
Total				$ 13,801	$ 16,599

(1) Range of interest rates and weighted average interest rates are for the year ended December 31, 2018.

(2) Net of $79 million and $86 million of unamortized issuance costs and net premiums and discounts at December 31, 2018 and 2017, respectively.

See Note 12 of the Notes to the Consolidated Financial Statements.

The aggregate maturities of long-term debt at December 31, 2018 for the next five years and thereafter are $728 million in 2019, $750 million in 2020, $1.4 billion in 2021, $500 million in 2022, $1.0 billion in 2023 and $9.5 billion thereafter.

Credit Facility – Affiliated

In June 2016, MetLife, Inc. entered into a five-year agreement with an indirect wholly-owned subsidiary, MetLife Ireland Treasury d.a.c. (formerly known as MetLife Ireland Treasury Limited) (“MIT”), to borrow up to $1.3 billion on a revolving basis, at interest rates based on the IRS safe harbor interest rate in effect at the time of the borrowing. MetLife, Inc. may borrow funds under the agreement at MIT’s discretion and subject to the availability of funds. There were no outstanding borrowings at December 31, 2018.

Long-term Debt – Affiliated

In June 2016 and March 2016, MetLife, Inc. repaid $204 million and $10 million, respectively, of affiliated long-term debt to MetLife Exchange Trust I at maturity in exchange for a return of capital. The long-term notes bore interest at three-month LIBOR plus 0.7%.

Senior Notes – Affiliated

In May 2018, $500 million in senior notes previously issued by MetLife, Inc. to MLIC and other subsidiaries were redenominated to new 54.6 billion Japanese yen senior notes. The 54.6 billion Japanese yen senior notes mature in December 2021 and bear interest at a rate per annum of 3.14%, payable semi-annually.

In April 2018, $500 million in senior notes previously issued by MetLife, Inc. to MLIC and other subsidiaries were redenominated to new 53.7 billion Japanese yen senior notes. The 53.7 billion Japanese yen senior notes mature in July 2021 and bear interest at a rate per annum of 2.97%, payable semi-annually.

In March 2018, three senior notes previously issued by MetLife, Inc. to MLIC were redenominated to Japanese yen. A $500 million senior note was redenominated to a new 53.3 billion Japanese yen senior note. The 53.3 billion Japanese yen senior note matures in June 2019 and bears interest at a rate per annum of 1.45%, payable semi-annually. A $250 million senior note was redenominated to a new 26.5 billion Japanese yen senior note. The 26.5 billion Japanese yen senior note matures in October 2019 and bears interest at a rate per annum of 1.72%, payable semi-annually. A $250 million senior note was also redenominated to a new 26.5 billion Japanese yen senior note. The 26.5 billion Japanese yen senior note matures in September 2020 and bears interest at a rate per annum of 0.82%, payable semi-annually.

In September 2016, a $250 million senior note issued to MLIC matured and, subsequently, in September 2016 MetLife, Inc. issued a new $250 million senior note to MLIC. The senior note matures in September 2020 and bears interest at a rate per annum of 3.03%, payable semi-annually.

MetLife, Inc.

Schedule II

Notes to the Condensed Financial Information — (continued)

(Parent Company Only)

4. Long-term Debt (continued)

See Note 3 for information on the MRD Notes Exchange in 2017.

Interest Expense

Interest expense was comprised of the following:

	Years Ended December 31,		
	2018	2017	2016
		(In millions)	
Long-term debt — unaffiliated	$ 755	$ 774	$ 811
Long-term debt — affiliated	45	112	160
Collateral financing arrangements	6	27	47
Junior subordinated debt securities	203	195	134
Total	$ 1,009	$ 1,108	$ 1,152

See Notes 13 and 14 of the Notes to the Consolidated Financial Statements for information about the collateral financing arrangement and junior subordinated debt securities. See also Note 3 of the Notes to the Consolidated Financial Statements regarding the termination of the MRSC collateral financing arrangement.

5. Junior Subordinated Debt Securities

In February 2017, in connection with the Separation, MetLife, Inc. exchanged $750 million aggregate principal amount of its 9.250% Fixed-to-Floating Rate Junior Subordinated Debentures due 2068 for $750 million aggregate liquidation preference of the 9.250% Fixed-to-Floating Rate Exchangeable Surplus Trust Securities of the Trust. As a result of the exchange, MetLife, Inc. became the sole beneficial owner of the Trust, a SPE, which issued the exchangeable surplus trust securities to third party investors. In March 2017, MetLife, Inc. dissolved the Trust and became the direct holder of $750 million 8.595% surplus notes previously held by the Trust that were issued by Brighthouse Insurance. In June 2017, MetLife, Inc. forgave Brighthouse Insurance's obligation to pay the principal amount of such surplus notes.

6. Support Agreements

MetLife, Inc. is party to various capital support commitments and guarantees with certain of its subsidiaries. Under these arrangements, MetLife, Inc. has agreed to cause each such entity to meet specified capital and surplus levels or has guaranteed certain contractual obligations.

MetLife, Inc. guarantees the obligations of its subsidiary, Missouri Reinsurance, Inc. ("MoRe"), under a retrocession agreement with RGA Reinsurance (Barbados) Inc., pursuant to which MoRe retrocedes a portion of the closed block liabilities associated with industrial life and ordinary life insurance policies that it assumed from MLIC.

MetLife, Inc. guarantees the obligations of MetLife Reinsurance Company of Bermuda, Ltd. ("MrB"), a Bermuda insurance affiliate and an indirect, wholly-owned subsidiary of MetLife, Inc. under a reinsurance agreement with Mitsui Sumitomo Primary Life Insurance Co., Ltd. ("Mitsui"), a former affiliate that is now an unaffiliated third party, under which MrB reinsures certain variable annuity business written by Mitsui.

MetLife, Inc. guarantees the obligations of MrB in an aggregate amount up to $1.0 billion, under a reinsurance agreement with MetLife Europe d.a.c. ("MEL") (formerly known as MetLife Europe Limited), under which MrB reinsured the guaranteed living benefits and guaranteed death benefits associated with certain unit-linked variable annuity type liability contracts issued by MEL.

MetLife, Inc.

Schedule II

Notes to the Condensed Financial Information — (continued)

(Parent Company Only)

6. Support Agreements (continued)

MetLife, Inc., in connection with MRV's reinsurance of certain universal life and term life insurance risks, committed to the Vermont Department of Banking, Insurance, Securities and Health Care Administration to take necessary action to cause the two protected cells of MRV to maintain total adjusted capital in an amount that is equal to or greater than 200% of each such protected cell's authorized control level RBC, as defined in Vermont state insurance statutes. See Note 12 of the Notes to the Consolidated Financial Statements.

MetLife, Inc., in connection with the collateral financing arrangement associated with MRC's reinsurance of a portion of the liabilities associated with the closed block, committed to the South Carolina Department of Insurance to make capital contributions, if necessary, to MRC so that MRC may at all times maintain its total adjusted capital in an amount that is equal to or greater than 200% of the Company Action Level RBC, as defined in South Carolina state insurance statutes as in effect on the date of determination or December 31, 2007, whichever calculation produces the greater capital requirement, or as otherwise required by the South Carolina Department of Insurance. See Note 13 of the Notes to the Consolidated Financial Statements.

MetLife, Inc. guarantees obligations arising from OTC-bilateral derivatives of the following subsidiaries: MrB, MetLife International Holdings, LLC and MetLife Worldwide Holdings, LLC. These subsidiaries are exposed to various risks relating to their ongoing business operations, including interest rate, foreign currency exchange rate, credit and equity market. These subsidiaries use a variety of strategies to manage these risks, including the use of derivatives. Further, all of the subsidiaries' derivatives are subject to industry standard netting agreements and collateral agreements that limit the unsecured portion of any open derivative position. On a net counterparty basis at December 31, 2018 and 2017, derivative transactions with positive mark-to-market values (in-the-money) were $302 million and $515 million, respectively, and derivative transactions with negative mark-to-market values (out-of-the-money) were $84 million and $126 million, respectively. To secure the obligations represented by the out of-the-money transactions, the subsidiaries had provided collateral to their counterparties with an estimated fair value of $84 million and $114 million at December 31, 2018 and 2017, respectively. Accordingly, unsecured derivative liabilities guaranteed by MetLife, Inc. were $0 and $12 million at December 31, 2018 and 2017, respectively.

MetLife, Inc. also guarantees the obligations of certain of its subsidiaries under committed facilities with third-party banks. See Note 12 of the Notes to the Consolidated Financial Statements.

MetLife, Inc.

Schedule III

Consolidated Supplementary Insurance Information
December 31, 2018 and 2017

(In millions)

Segment	DAC and VOBA	Future Policy Benefits, Other Policy-Related Balances and Policyholder Dividend Obligation	Policyholder Account Balances	Policyholder Dividends Payable	Unearned Premiums (1), (2)	Unearned Revenue (1)
2018						
U.S.	$ 633	$ 72,639	$ 69,002	$ —	$ 1,945	$ 36
Asia	10,156	41,846	66,610	86	2,381	1,299
Latin America	1,984	10,170	5,961	—	119	719
EMEA	1,622	5,357	11,712	5	19	464
MetLife Holdings	4,474	72,405	30,394	586	162	192
Corporate & Other	26	1,320	14	—	—	—
Total	$18,895	$ 203,737	$ 183,693	$ 677	$ 4,626	$ 2,710
2017						
U.S.	$ 614	$ 65,610	$ 70,455	$ —	$ 1,907	$ 24
Asia	9,261	39,702	59,702	80	2,378	916
Latin America	2,050	10,397	6,361	—	115	675
EMEA	1,673	5,768	13,811	7	24	454
MetLife Holdings	4,797	73,317	32,176	595	167	205
Corporate & Other	24	816	13	—	1	—
Total	$18,419	$ 195,610	$ 182,518	$ 682	$ 4,592	$ 2,274

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(1) Amounts are included within the future policy benefits, other policy-related balances and policyholder dividend obligation column.

(2) Includes premiums received in advance.

MetLife, Inc.

Schedule III

Consolidated Supplementary Insurance Information — (continued)
For the Years Ended December 31, 2018, 2017 and 2016

(In millions)

Segment	Premiums and Universal Life and Investment-Type Product Policy Fees	Net Investment Income	Policyholder Benefits and Claims and Interest Credited to Policyholder Account Balances	Amortization of DAC and VOBA Charged to Other Expenses	Other Expenses (1)
2018					
U.S.	$ 29,239	$ 6,703	$ 29,539	$ 477	$ 3,466
Asia	8,390	3,055	6,559	1,297	1,903
Latin America	3,817	1,194	3,057	209	1,044
EMEA	2,587	(195)	772	433	909
MetLife Holdings	5,191	5,222	6,662	553	2,286
Corporate & Other	118	187	80	6	2,382
Total	$ 49,342	$ 16,166	$ 46,669	$ 2,975	$ 11,990
2017					
U.S.	$ 24,644	$ 6,201	$ 25,103	$ 459	$ 3,235
Asia	8,352	3,299	6,799	1,310	1,802
Latin America	3,737	1,288	2,973	224	1,111
EMEA	2,492	1,157	2,012	356	966
MetLife Holdings	5,603	5,426	7,097	234	2,550
Corporate & Other	(326)	(8)	(64)	98	2,507
Total	$ 44,502	$ 17,363	$ 43,920	$ 2,681	$ 12,171
2016					
U.S.	$ 22,490	$ 5,942	$ 22,892	$ 471	$ 3,244
Asia	8,914	2,807	6,916	1,350	1,795
Latin America	3,554	1,133	2,770	184	1,007
EMEA	2,442	1,229	2,064	408	924
MetLife Holdings	6,034	5,670	7,521	424	3,392
Corporate & Other	(749)	9	(629)	(119)	1,892
Total	$ 42,685	$ 16,790	$ 41,534	$ 2,718	$ 12,254

(1) Includes other expenses and policyholder dividends, excluding amortization of DAC and VOBA charged to other expenses.

MetLife, Inc.

Schedule IV

Consolidated Reinsurance
December 31, 2018, 2017 and 2016

(Dollars in millions)

	Gross Amount	Ceded	Assumed	Net Amount	% Amount Assumed to Net
2018					
Life insurance in-force	$ 4,963,820	$ 507,589	$ 532,511	$ 4,988,742	10.7%
Insurance premium					
Life insurance (1)	$ 26,356	$ 1,792	$ 1,791	$ 26,355	6.8%
Accident & health insurance	14,166	515	212	13,863	1.5%
Property and casualty insurance	3,677	73	18	3,622	0.5%
Total insurance premium	$ 44,199	$ 2,380	$ 2,021	$ 43,840	4.6%
2017					
Life insurance in-force	$ 4,594,523	$ 513,091	$ 581,246	$ 4,662,678	12.5%
Insurance premium					
Life insurance (1)	$ 22,379	$ 1,863	$ 1,531	$ 22,047	6.9%
Accident & health insurance	13,593	442	223	13,374	1.7%
Property and casualty insurance	3,623	71	19	3,571	0.5%
Total insurance premium	$ 39,595	$ 2,376	$ 1,773	$ 38,992	4.5%
2016					
Life insurance in-force	$ 4,098,780	$ 481,028	$ 613,693	$ 4,231,445	14.5%
Insurance premium					
Life insurance (1)	$ 20,857	$ 1,614	$ 1,089	$ 20,332	5.4%
Accident & health insurance	13,551	447	257	13,361	1.9%
Property and casualty insurance	3,567	75	17	3,509	0.5%
Total insurance premium	$ 37,975	$ 2,136	$ 1,363	$ 37,202	3.7%

(1) Includes annuities with life contingencies.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures as defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act. The Company has designed these controls and procedures to ensure that information the Company is required to disclose in reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and is accumulated and communicated to Company management, including the CEO and CFO as appropriate, to allow timely decisions regarding required disclosure.

Management, including the CEO and CFO, evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rule 13a-15(b) under the Exchange Act as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, the CEO and CFO concluded that the disclosure controls and procedures were effective as of December 31, 2018.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act. In fulfilling this responsibility, management's estimates and judgments must assess the expected benefits and related costs of control procedures. The Company's internal control objectives include providing management with reasonable, but not absolute, assurance that the Company has safeguarded assets against loss from unauthorized use or disposition, and that the Company has executed transactions in accordance with management's authorization and recorded them properly to permit the preparation of consolidated financial statements in conformity with GAAP.

Management evaluated the design and operating effectiveness of the Company's internal control over financial reporting based on the criteria established in the Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO framework"). In the opinion of management, MetLife, Inc. maintained effective internal control over financial reporting as of December 31, 2018.

Deloitte has issued its report on its audit of the effectiveness of internal control over financial reporting, which is included on page 367.

Changes in Internal Control Over Financial Reporting

Except with respect to our remedial actions described below, the Company did not materially change its internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act during the quarter ended December 31, 2018, and made no changes that it believes are reasonably likely to materially affect, its internal control over financial reporting.

Remediation of Material Weaknesses

The Company identified the following material weaknesses in the principles associated with both the control activities and information and communication components of the COSO framework as of December 31, 2017 in its annual report on Form 10-K for the year ended December 31, 2017:

RIS Group Annuity Reserves:

- Ineffective design and operating effectiveness of the controls related to processes and procedures for identifying unresponsive and missing group annuity annuitants and pension beneficiaries (Control Activities); and
- Ineffective design and operating effectiveness of the controls intended to ensure timely communication and escalation of the issue throughout the Company (Information and Communication).

MetLife Holdings Assumed Variable Annuity Guarantee Reserves:

Ineffective design and operating effectiveness of the controls related to data validation and monitoring of reserves for variable annuity guarantees issued by a former operating joint venture in Japan and reinsured by the Company and included within MetLife Holdings (Control Activities).

The Company's remediation steps outlined below strengthened its internal control over financial reporting. As of December 31, 2018, the Company had implemented these enhanced procedures and controls and successfully tested them. As a result, the Company concluded that it had remediated the material weaknesses associated with RIS Group Annuity Reserves and MetLife Holdings Assumed Variable Annuity Guarantee Reserves as of that date.

To remediate the material weaknesses identified above, management performed the following actions:

RIS Group Annuity Reserves:

- The Company engaged third party advisors and employees, supervised by MetLife, Inc.'s CRO, to examine and analyze the facts and circumstances giving rise to the material weakness and addressed those findings;
- The Company changed its accounting procedures, administrative and search practices to identify, contact, and record responses from "unresponsive and missing" plan annuitants and to otherwise locate missing annuitants; and
- The Company implemented enhanced internal controls associated with timely internal communication and escalation procedures and governance.

MetLife Holdings Assumed Variable Annuity Guarantee Reserves:

- The Company engaged third party advisors and employees, supervised by MetLife, Inc.'s Chief Auditor, to examine and analyze the facts and circumstances giving rise to the material weakness, and addressed those findings; and
- The Company enhanced its reconciliation, analytic controls, and change management to ensure the completeness and accuracy of the assumed reinsurance in-force data.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of MetLife, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of MetLife, Inc. and subsidiaries (the "Company") as of December 31, 2018, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2018, of the Company and our report dated February 21, 2019, expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP
New York, New York
February 21, 2019

Item 9B. Other Information

None.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

The information called for by this Item pertaining to Directors is incorporated herein by reference to the sections entitled "Proxy Summary — Director Nominees' Experience, Tenure, Independence and Diversity," "Proposal 1 — Election of Directors For a One-Year Term Ending at the 2020 Annual Meeting of Shareholders — Director Nominees" and "Proposal 1 — Election of Directors For a One-Year Term Ending at the 2020 Annual Meeting of Shareholders — Corporate Governance — Information About the Board of Directors" and "Other Information — Section 16(a) Beneficial Ownership Reporting Compliance" in MetLife, Inc.'s definitive proxy statement for the Annual Meeting of Shareholders to be held on June 18, 2019, to be filed by MetLife, Inc. with the SEC pursuant to Regulation 14A within 120 days after the year ended December 31, 2018 (the "2019 Proxy Statement").

The information called for by this Item pertaining to Executive Officers appears in "Business — Executive Officers" in this Annual Report on Form 10-K and "Other Information — Section 16(a) Beneficial Ownership Reporting Compliance" in the 2019 Proxy Statement.

The Company has adopted the MetLife Financial Management Code of Professional Conduct (the "Financial Management Code"), a "code of ethics" as defined under the rules of the SEC, that applies to MetLife, Inc.'s Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and all professionals in finance and finance-related departments. In addition, the Company has adopted the Directors' Code of Business Conduct and Ethics (the "Directors' Code") which applies to all members of MetLife, Inc.'s Board of Directors, including the Chief Executive Officer, and the Code of Conduct (together with the Financial Management Code and the Directors' Code, collectively, the "Ethics Codes"), which applies to all employees of the Company, including MetLife, Inc.'s Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer. The Ethics Codes are available on the Company's website at https://www.metlife.com/about-us/corporate-governance/corporate-conduct/. The Company intends to satisfy its disclosure obligations under Item 5.05 of Form 8-K by posting information about amendments to, or waivers from a provision of, the Ethics Codes that apply to MetLife, Inc.'s Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer on the Company's website at the address given above.

Item 11. Executive Compensation

The information called for by this Item is incorporated herein by reference to the sections entitled "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2020 Annual Meeting of Shareholders — Corporate Governance — Information About the Board of Directors," "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2020 Annual Meeting of Shareholders — Director Compensation in 2018," and "Proposal 3 — Advisory Vote to Approve the Compensation Paid to the Company's Named Executive Officers" in the 2019 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information called for by this Item pertaining to ownership of shares of MetLife, Inc.'s common stock ("Shares") is incorporated herein by reference to the sections entitled "Other Information — Security Ownership of Directors and Executive Officers" and "Other Information — Security Ownership of Certain Beneficial Owners" in the 2019 Proxy Statement.

The following table provides information at December 31, 2018, regarding MetLife, Inc.'s equity compensation plans:

Equity Compensation Plan Information at December 31, 2018

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights (1) (a)	Weighted-average Exercise Price of Outstanding Options, Warrants and Rights (2) (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))(3) (c)
Equity compensation plans approved by security holders	23,814,156	$ 36.70	39,004,985
Equity compensation plans not approved by security holders	None	—	None
Total	23,814,156	$ 36.70	39,004,985

(1) Column (a) reflects the following items outstanding as of December 31, 2018:

Stock Options	12,355,294
Restricted Stock Units	2,946,269
Performance Shares (assuming future payout at maximum performance factor)	7,077,410
Deferred Shares	1,435,183
Shares that will or may be issued	23,814,156

As of December 31, 2018:

- Stock Options under the MetLife, Inc. 2015 Stock and Incentive Compensation Plan (the "2015 Stock Plan") and its predecessor plan, the MetLife, Inc. 2005 Stock and Incentive Compensation Plan (the "2005 Stock Plan") were outstanding;
- Restricted Stock Units and Performance Shares under the 2015 Stock Plan were outstanding; and
- Deferred Shares related to awards under the 2015 Stock Plan, MetLife, Inc. 2015 Non-Management Directors Stock Compensation Plan (the "2015 Director Stock Plan"), 2005 Stock Plan, MetLife, Inc. 2005 Non-Management Directors Stock Compensation Plan (the "2005 Director Stock Plan"), and earlier plans, were outstanding. Deferred Shares are related to awards that have become payable in Shares under any plan, but the issuance of which has been deferred.

The maximum performance factor for Performance Shares granted in 2016, 2017, and 2018 was 175%. The number of Performance Shares outstanding as of December 31, 2018 at target (100%) performance factor was 4,044,234.

MetLife, Inc. may issue Shares pursuant to awards (including Stock Option exercises, if any) under any plan using Shares held in treasury by MetLife, Inc. or by issuing new Shares.

For a general description of how the number of Shares paid out on account of Performance Shares and Restricted Stock Units is determined, and the vesting periods applicable to Performance Shares and Restricted Stock Units, see Note 15 of the Notes to the Consolidated Financial Statements.

(2) Column (b) reflects the weighted average exercise price of all Stock Options under any plan that, as of December 31, 2018, had been granted but not forfeited, expired, or exercised. Performance Shares, Restricted Stock Units, and Deferred Shares are not included in determining the weighted average in column (b) because they have no exercise price.

(3) Column (c) reflects the following items outstanding as of December 31, 2018:

	Number of Shares
At January 15, 2015, the effective date of the 2015 Stock Plan and 2015 Director Stock Plan:	
Shares newly authorized for issuance under the 2015 Stock Plan	11,750,000
Shares remaining authorized for issuance under the 2005 Stock Plan or other plans that were not covered by awards (i)	18,023,959
Shares authorized for issuance under the 2015 Director Stock Plan (ii)	1,642,208
Total Shares authorized for issuance at January 1, 2015	31,416,167
Additional Shares recovered for issuance (iii) in:	
2015	4,475,737
2016	6,344,455
2017	6,636,193
2018	5,655,122
Total Shares recovered for issuance since January 1, 2015	23,111,507
Less: Shares covered by new awards and new imputed reinvested dividends on Deferred Shares (iv) in:	
2015	4,413,785
2016	6,036,177
2017	4,532,897
2018	4,519,557
Total Shares covered by new awards and new imputed reinvested dividends on Deferred Shares since January 1, 2015	19,502,416
Net shares added to the 2015 Stock Plan and 2015 Director Plan authorizations in light of the Separation (v)	3,979,727
Shares remaining available for future issuance under the 2015 Stock Plan and 2015 Director Stock Plan	39,004,985

(i) Consists of Shares that were not covered by awards, including Shares previously covered by awards but recovered due to forfeiture of awards or other reasons and once again available for issuance.

(ii) Consists of Shares remaining authorized for issuance under the predecessor plan, the 2005 Director Stock Plan, that were not covered by awards, including Shares previously covered by awards but recovered due to forfeiture of awards or other reasons and once again available.

(iii) Consists of Shares utilized under the 2005 Stock Plan or 2015 Stock Plan that were recovered during each of the indicated calendar years, and therefore once again available for issuance, due to: (i) termination of the award by expiration, forfeiture, cancellation, lapse, or otherwise without issuing Shares; (ii) settlement of the award in cash either in lieu of Shares or otherwise; (iii) exchange of the award for awards not involving Shares; (iv) payment of the exercise price of a Stock Option, or the tax withholding requirements with respect to an award, satisfied by tendering Shares to MetLife, Inc. (by either actual delivery or by attestation); (v) satisfaction of tax withholding requirements with respect to an award satisfied by MetLife, Inc. withholding Shares otherwise issuable; and (vi) the payout of Performance Shares at any performance factor less than the maximum performance factor.

(iv) Consists of Shares covered by awards granted under the 2015 Stock Plan (including Performance Shares assuming future payout at maximum performance factor). Shares covered by awards granted under the 2015 Directors Stock Plan and Shares covered by imputed reinvested dividends credited on Deferred Shares owed to directors, employees or agents, in each case during each of the indicated calendar years.

(v) In light of the Separation, and in order to maintain the Share authorizations under each plan at the levels that shareholders had approved, MetLife, Inc. increased the number of Shares authorized for issuance under the 2015 Stock Plan and 2015 Director Plan as of August 4, 2017, excluding those Shares from the authorizations that had already been issued, by the Adjustment Ratio. MetLife, Inc. also increased the number of Shares covered by outstanding Stock Options, Performance Shares, Restricted Stock Units, and Deferred Shares on that date by the Adjustment Ratio, in order to maintain the intrinsic value of those awards and Deferred Shares, which decreased the number of Shares available for issuance under both plans. The amount in this row is the net increase in the Share authorization under both the 2015

Stock Plan and 2015 Director Plan as a result of these adjustments. For a description of the adjustment to Stock Options, Performance Shares, Restricted Stock Units, and Deferred Shares, see Note 15 of the Notes to the Consolidated Financial Statements.

Each Share MetLife, Inc. issues in connection with awards granted under the MetLife, Inc. 2005 Stock Plan other than Stock Options or Stock Appreciation Rights (such as Shares payable on account of Performance Shares or Restricted Stock Units under that plan, including any Deferred Shares resulting from such awards) reduces the number of Shares remaining for issuance by 1.179 ("2005 Stock Plan Share Award Ratio"). Each Share MetLife, Inc. issues in connection with a Stock Option or Stock Appreciation Right granted under the 2005 Stock Plan, or in connection with any award under any other plan for employees and agents (including any Deferred Shares resulting from such awards), reduces the number of Shares remaining for issuance by 1.0. ("Standard Award Ratio"). Shares related to awards that are recovered, and therefore authorized for issuance under the 2015 Stock Plan, are recovered with consideration of the 2005 Stock Plan Share Award Ratio and Standard Award Ratio, as applicable. Each Share MetLife, Inc. issues under the 2005 Director Stock Plan or 2015 Director Stock Plan (including any Deferred Shares resulting from such awards) reduces the number of Shares remaining for issuance under that plan by one. Shares related to awards that are recovered, and therefore authorized for issuance under the 2015 Director Stock Plan are recovered with consideration of this ratio. If MetLife, Inc. was to grant a Share-settled Stock Appreciation Right under the 2015 Stock Plan and the award holder exercised it, only the number of Shares MetLife, Inc. issued, net of the Shares tendered, if any, would be deemed delivered for purposes of determining the maximum number of Shares MetLife, Inc. may issue under the 2015 Stock Plan.

Any Shares covered by awards under the 2015 Director Stock Plan that were to be recovered due to (i) termination of the award by expiration, forfeiture, cancellation, lapse, or otherwise without issuing Shares; (ii) settlement of the award in cash either in lieu of Shares or otherwise; (iii) exchange of the award for awards not involving Shares; and (iv) payment of the exercise price of a Stock Option, or the tax withholding requirements with respect to an award, satisfied by tendering Shares to MetLife, Inc. (by either actual delivery or by attestation) would be available to be issued under the 2015 Director Stock Plan. In addition, if MetLife, Inc. was to grant a Share-settled Stock Appreciation Right under the 2015 Director Stock Plan, only the number of Shares issued, net of the Shares tendered, if any, would be deemed delivered for purposes of determining the maximum number of Shares available for issuance under the 2015 Director Stock Plan.

Under both the 2015 Stock Plan and the 2015 Director Stock Plan, in the event of a corporate event or transaction (including, but not limited to, a change in the Shares or the capitalization of MetLife) such as a merger, consolidation, reorganization, recapitalization, separation, stock dividend, extraordinary dividend, stock split, reverse stock split, split up, spin-off, or other distribution of stock or property of MetLife, combination of securities, exchange of securities, dividend in kind, or other like change in capital structure or distribution (other than normal cash dividends) to shareholders of MetLife, or any similar corporate event or transaction, the appropriate committee of the Board of Directors of MetLife, in order to prevent dilution or enlargement of participants' rights under the applicable plan, shall substitute or adjust, as applicable, the number and kind of Shares that may be issued under that plan and shall adjust the number and kind of Shares subject to outstanding awards. Any Shares related to awards under either plan which: (i) terminate by expiration, forfeiture, cancellation, or otherwise without the issuance of Shares; (ii) are settled in cash either in lieu of Shares or otherwise; or (iii) are exchanged with the appropriate committee's permission for awards not involving Shares, are available again for grant under the applicable plan. If the option price of any Stock Option granted under either plan or the tax withholding requirements with respect to any award granted under either plan is satisfied by tendering Shares to MetLife (by either actual delivery or by attestation), or if a Stock Appreciation Right is exercised, only the number of Shares issued, net of the Shares tendered, if any, will be deemed delivered for purposes of determining the maximum number of Shares available for issuance under that plan. The maximum number of Shares available for issuance under either plan shall not be reduced to reflect any dividends or dividend equivalents that are reinvested into additional Shares or credited as additional Restricted Stock or Restricted Stock Units.

For a description of the kinds of awards that have been or may be made under the 2015 Stock Plan and 2015 Director Stock Plan and awards that remained outstanding under the 2005 Stock Plan, see Note 15 of the Notes to the Consolidated Financial Statements.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information called for by this Item is incorporated herein by reference to the sections entitled "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2019 Annual Meeting of Shareholders — Corporate Governance — Procedures for Reviewing Related Person Transactions," "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2019 Annual Meeting of Shareholders — Corporate Governance — Related Person Transactions" and "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2019 Annual Meeting of Shareholders — Corporate Governance — Information About the Board of Directors — Composition and Independence of the Board of Directors" in the 2019 Proxy Statement.

Item 14. Principal Accountant Fees and Services

The information called for by this item is incorporated herein by reference to the section entitled “Proposal 2 — Ratification of Appointment of the Independent Auditor” in the 2019 Proxy Statement.

Part IV

Item 15. Exhibits and Financial Statement Schedules

The following documents are filed as part of this report:

1. Financial Statements

The financial statements are listed in the Index to Consolidated Financial Statements, Notes and Schedules on page 180.

2. Financial Statement Schedules

The financial statement schedules are listed in the Index to Consolidated Financial Statements, Notes and Schedules on page 180.

3. Exhibits

The exhibits are listed in the Exhibit Index which begins on page 374.

Item 16. Form 10-K Summary

None.

Exhibit Index

*(**Note Regarding Reliance on Statements in Our Contracts:** In reviewing the agreements included as exhibits to this Annual Report on Form 10-K, please remember that they are included to provide you with information regarding their terms and are not intended to provide any other factual or disclosure information about MetLife, Inc., its subsidiaries or affiliates, or the other parties to the agreements. The agreements contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties have been made solely for the benefit of the other parties to the applicable agreement and (i) should not in all instances be treated as categorical statements of fact, but rather as a way of allocating the risk to one of the parties if those statements prove to be inaccurate; (ii) have been qualified by disclosures that were made to the other party in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement; (iii) may apply standards of materiality in a way that is different from what may be viewed as material to investors; and (iv) were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement and are subject to more recent developments. Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time. Additional information about MetLife, Inc., its subsidiaries and affiliates may be found elsewhere in this Annual Report on Form 10-K and MetLife, Inc.'s other public filings, which are available without charge through the U.S. Securities and Exchange Commission website at www.sec.gov.)*

		Incorporated By Reference				
Exhibit No.	**Description**	**Form**	**File Number**	**Exhibit**	**Filing Date**	**Filed or Furnished Herewith**
2.1	Plan of Reorganization.	S-1	333-91517	2.1	November 23, 1999	
2.2	Amendment to Plan of Reorganization, dated as of March 9, 2000.	S-1/A	333-91517	2.2	March 29, 2000	
2.3	Master Separation Agreement, dated August 4, 2017, between MetLife, Inc. and Brighthouse Financial, Inc.	8-K	001-15787	2.1	August 7, 2017	
3.1	Amended and Restated Certificate of Incorporation of MetLife, Inc.	10-K	001-15787	3.1	March 1, 2017	
3.2	Certificate of Retirement of Series B Contingent Convertible Junior Participating Non-Cumulative Perpetual Preferred Stock of MetLife, Inc., filed with the Secretary of State of Delaware on November 5, 2013.	10-Q	001-15787	3.6	November 7, 2013	
3.3	Certificate of Amendment of Amended and Restated Certificate of Incorporation of MetLife, Inc., dated April 29, 2015.	8-K	001-15787	3.1	April 30, 2015	
3.4	Certificate of Designations of 5.250% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, of MetLife, Inc., filed with the Secretary of State of Delaware on May 28, 2015.	8-K	001-15787	3.1	May 28, 2015	
3.5	Certificate of Elimination of 6.500% Non-Cumulative Preferred Stock, Series B, of MetLife, Inc., filed with the Secretary of State of Delaware on November 3, 2015.	10-Q	001-15787	3.7	November 5, 2015	
3.6	Certificate of Amendment of Amended and Restated Certificate of Incorporation of MetLife, Inc., dated April 29, 2011.	10-K	001-15787	3.4	March 1, 2017	
3.7	Certificate of Designation, Preferences and Rights of Series A Junior Participating Preferred Stock of MetLife, Inc., filed with the Secretary of State of Delaware on April 7, 2000.	10-K	001-15787	3.2	March 1, 2017	
3.8	Certificate of Designations of Floating Rate Non-Cumulative Preferred Stock, Series A, of MetLife, Inc., filed with the Secretary of State of Delaware on June 10, 2005.	10-K	001-15787	3.3	March 1, 2017	
3.9	Certificate of Amendment of Amended and Restated Certificate of Incorporation of MetLife, Inc., dated October 23, 2017	8-K	001-15787	3.1	October 24, 2017	
3.10	Certificate of Designations of 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D, of MetLife, Inc., filed with the Secretary of State of Delaware on March 21, 2018.	8-K	001-15787	3.1	March 22, 2018	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
3.11	Certificate of Designations of 5.625% Non-Cumulative Preferred Stock, Series E, of MetLife, Inc., filed with the Secretary of the State of Delaware on May 31, 2018.	8-K	001-15787	3.1	June 4, 2018	
3.12	Amended and Restated By-Laws of MetLife, Inc., effective September 25, 2018.	8-K	001-15787	3.2	October 1, 2018	
4.1	Form of Certificate for Common Stock, par value $0.01 per share.	S-1/A	333-91517	4.1	March 9, 2000	
4.2	Certificate of Designation, Preferences and Rights of Series A Junior Participating Preferred Stock of MetLife, Inc., filed with the Secretary of State of Delaware on April 7, 2000. (See Exhibit 3.7 above).					
4.3	Certificate of Designations of Floating Rate Non-Cumulative Preferred Stock, Series A, of MetLife, Inc., filed with the Secretary of State of Delaware on June 10, 2005. (See Exhibit 3.8 above).					
4.4	Form of Stock Certificate, Floating Rate Non-Cumulative Preferred Stock, Series A, of MetLife, Inc.	8-A	001-15787	99.6	June 10, 2005	
4.5	Certificate of Designations of 5.250% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, of MetLife, Inc., filed with the Secretary of State of Delaware on May 28, 2015. (See Exhibit 3.4 above).					
4.6	Form of Stock Certificate, 5.250% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, of MetLife, Inc.	8-K	001-15787	4.2	May 28, 2015	
4.7	Certificate of Amendment of Amended and Restated Certificate of Incorporation of MetLife, Inc., dated October 23, 2017. (See Exhibit 3.9 above).					
4.8	Form of Stock Certificate, 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D, of MetLife, Inc.	8-K	001-15787	4.1	March 22, 2018	
4.9	Form of Stock Certificate, 5.625% Non-Cumulative Preferred Stock, Series E, of MetLife, Inc.	8-K	001-15787	4.1	June 4, 2018	
4.10	Deposit Agreement, dated June 4, 2018, among the Company, Computershare Inc. and Computershare Trust Company, N.A., as depositary, and the holders from time to time of the depositary receipts described therein.	8-K	001-15787	4.2	June 4, 2018	
4.11	Form of Depositary Receipt, Depositary Shares each representing a 1/1,000th interest in a share of 5.625% Non-Cumulative Preferred Stock, Series E, of MetLife, Inc.	8-K	001-15787	4.3	June 4, 2018	
	Certain instruments defining the rights of holders of long-term debt of MetLife, Inc. and its consolidated subsidiaries are omitted pursuant to Item 601(b)(4)(iii) of Regulation S-K. MetLife, Inc. hereby agrees to furnish to the Securities and Exchange Commission, upon request, copies of such instruments.					
10.1.1	MetLife Policyholder Trust Agreement.	S-1	333-91517	10.12	November 23, 1999	
10.1.2	Amendment to MetLife Policyholder Trust Agreement.	10-K	001-15787	10.62	February 27, 2013	
10.2	Five-Year Credit Agreement, dated as of August 4, 2017 (“2017 Credit Agreement”), amending and restating the Five-Year Credit Agreement, dated as of May 30, 2014 (“2014 Credit Agreement”), among MetLife, Inc. and MetLife Funding, Inc., as borrowers, and the other parties signatory thereto (The 2017 Credit Agreement is included as Exhibit A to the Second Amendment, dated as of December 20, 2016, to the 2014 Credit Agreement).	8-K	001-15787	10.1	December 21, 2016	
10.3	Purchase Agreement by and among MetLife, Inc. and Massachusetts Mutual Life Insurance Company, dated as of February 28, 2016.	10-Q	001-15787	10.1	May 6, 2016	

Exhibit No.	Description	Incorporated By Reference: Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.4	Tax Separation Agreement, dated as of July 27, 2017, by and among MetLife, Inc. and its affiliates and Brighthouse Financial, Inc. and its affiliates.	8-K	001-15787	10.1	August 7, 2017	
10.5	MetLife, Inc. 2015 Non-Management Director Stock Compensation Plan, effective January 1, 2015.*	S-8	333-198141	4.1	August 14, 2014	
10.6	MetLife Non-Management Director Deferred Compensation Plan (as amended and restated, effective January 1, 2005).*	S-8	333-214710	4.1	November 18, 2016	
10.7	MetLife, Inc. Director Indemnity Plan (dated and effective July 22, 2008).*	10-K	001-15787	10.94	February 27, 2014	
10.8.1	Agreement to Protect Corporate Property executed by William J. Wheeler on June 21, 2001.*	10-Q	001-15787	10.2	November 5, 2015	
10.8.2	Agreement to Protect Corporate Property, dated January 12, 2015, executed by Esther S. Lee.*	10-K	001-15787	10.13	February 25, 2016	
10.8.3	Form of Agreement to Protect Corporate Property executed by Steven A. Kandarian, Steven J. Goulart, and Maria M. Morris.*	10-K	001-15787	10.14	February 25, 2016	
10.8.4	Form of Agreement to Protect Corporate Property executed by Michel Khalaf, effective April 9, 2012.*	10-Q	001-15787	10.15	February 25, 2016	
10.8.5	Form of Agreement to Protect Corporate Property executed by Ricardo A. Anzaldua, John C. R. Hele, Frans Hijkoop, and Esther Lee on May 25, 2016; Steven A. Kandarian on May 31, 2016; Steven J. Goulart on June 2, 2016; Maria M. Morris on June 8, 2016 and Martin J. Lippert on July 6, 2016.*	10-Q	001-15787	10.1	August 5, 2016	
10.8.6	Form of Agreement to Protect Corporate Property executed by Susan Podlogar, effective July 10, 2017, and executed by Ramy Tadros, effective September 11, 2017.*	10-Q	001-15787	10.1	August 5, 2016	
10.9	MetLife Executive Severance Plan (as amended and restated, effective June 14, 2010).*	10-K	001-15787	10.1	February 27, 2015	
10.10	MetLife Performance-Based Compensation Recoupment Policy (effective as amended and restated November 1, 2017).*	8-K	001-15787	10.1	November 6, 2017	
10.11.1	MetLife, Inc. 2015 Stock and Incentive Compensation Plan, effective January 1, 2015 (the “2015 SIC Plan”).*	S-8	333-198145	4.1	August 14, 2014	
10.11.2	MetLife, Inc. 2005 Stock and Incentive Compensation Plan, effective April 15, 2005 (the “2005 SIC Plan”).*	10-K	001-15787	10.24	February 27, 2015	
10.12	MetLife Annual Variable Incentive Plan (effective as amended and restated January 1, 2015).*	8-K	001-15787	10.11	December 11, 2014	
10.13.1	MetLife International Unit Option Incentive Plan (as amended and restated December 3, 2012).*	8-K	001-15787	10.11	February 15, 2013	
10.13.2	MetLife International Unit Option Incentive Plan, dated July 21, 2011 (as amended and restated effective February 23, 2011).*	10-K	001-15787	10.24	March 1, 2017	
10.14	MetLife International Restricted Unit Incentive Plan (as amended and restated effective February 11, 2013).*	8-K	001-15787	10.6	February 15, 2013	
10.15	MetLife International Performance Unit Incentive Plan (as amended and restated effective February 11, 2013).*	8-K	001-15787	10.2	February 15, 2013	
10.16.1	Form of Stock Option Agreement under the 2005 SIC Plan (effective February 11, 2013).*	8-K	001-15787	10.9	February 15, 2013	
10.16.2	Form of Stock Option Agreement (Three-Year “Cliff” Exercisability) under the 2005 SIC Plan (effective February 11, 2013).*	8-K	001-15787	10.10	February 15, 2013	
10.16.3	Form of Management Stock Option Agreement under the 2005 SIC Plan (effective as of April 25, 2007).*	10-K	001-15787	10.24	February 27, 2013	

Exhibit No.	Description	Incorporated By Reference: Form	Incorporated By Reference: File Number	Incorporated By Reference: Exhibit	Incorporated By Reference: Filing Date	Filed or Furnished Herewith
10.16.4	Amendment to Stock Option Agreements under the 2005 SIC Plan (effective as of April 25, 2007).*	10-K	001-15787	10.25	February 27, 2013	
10.16.5	Form of Stock Option Agreement (Ratable Exercisability in Thirds).*	8-K	001-15787	10.7	December 11, 2014	
10.16.6	Form of Stock Option Agreement (Three-Year “Cliff” Exercisability).*	8-K	001-15787	10.8	December 11, 2014	
10.16.7	Form of Management Stock Option Agreement under the 2005 SIC Plan (effective December 15, 2009).*	10-K	001-15787	10.28	February 27, 2015	
10.16.8	Form of Management Stock Option Agreement under the 2005 SIC Plan.*	10-K	001-15787	10.29	February 27, 2015	
10.16.9	Form of Stock Option Agreement (Ratable Exercisability in Thirds), effective January 1, 2016.*	10-K	001-15787	10.101	February 25, 2016	
10.16.10	Form of Stock Option Agreement (Three-Year “Cliff” Exercisability), effective January 1, 2016.*	10-K	001-15787	10.102	February 25, 2016	
10.17.1	Form of Unit Option Agreement (effective February 11, 2013).*	8-K	001-15787	10.12	February 15, 2013	
10.17.2	Form of Unit Option Agreement (Three-Year “Cliff” Exercisability) (effective February 11, 2013).*	8-K	001-15787	10.13	February 15, 2013	
10.17.3	Form of Unit Option Agreement (Ratable Exercisability in Thirds).*	8-K	001-15787	10.9	December 11, 2014	
10.17.4	Form of Unit Option Agreement (Three-Year “Cliff” Exercisability).*	8-K	001-15787	10.10	December 11, 2014	
10.17.5	Form of Unit Option Agreement (Ratable Exercisability in Thirds), effective January 1, 2016.*	10-K	001-15787	10.103	February 25, 2016	
10.17.6	Form of Unit Option Agreement (Three-Year “Cliff” Exercisability), effective January 1, 2016.*	10-K	001-15787	10.104	February 25, 2016	
10.17.7	Form of Unit Option Agreement under the MetLife International Unit Option Incentive Plan (effective February 23, 2011).*	10-K	001-15787	10.25	March 1, 2017	
10.18.1	Form of Restricted Stock Unit Agreement (Ratable Period of Restriction Ends in Thirds; Code Section 162(m) Goals) under the 2015 SIC Plan.*	8-K	001-15787	10.3	December 11, 2014	
10.18.2	Form of Restricted Stock Unit Agreement (Three-Year “Cliff” Period of Restriction; No Code Section 162(m) Goals).*	8-K	001-15787	10.4	December 11, 2014	
10.18.3	Form of Restricted Stock Unit Agreement (Ratable Period of Restriction Ends in Thirds; Code Section 162(m) Goals) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.97	February 25, 2016	
10.18.4	Form of Restricted Stock Unit Agreement (Three-Year “Cliff” Period of Restriction; No Code Section 162(m) Goals), effective January 1, 2016.*	10-K	001-15787	10.98	February 25, 2016	
10.18.5	Form of Restricted Stock Unit Agreement (Ratable Period of Restriction Ends in Thirds), effective February 27, 2018.*	8-K	001-15787	10.3	February 20, 2018	
10.18.6	Form of Restricted Stock Unit Agreement (Three-Year “Cliff” Period of Restriction), effective February 27, 2018.*	8-K	001-15787	10.4	February 20, 2018	
10.19.1	Form of Restricted Unit Agreement (effective February 11, 2013).*	8-K	001-15787	10.7	February 15, 2013	
10.19.2	Form of Restricted Unit Agreement (Three-Year “Cliff” Period of Restriction; No Code 162(m) Goals) (effective February 11, 2013).*	8-K	001-15787	10.8	February 15, 2013	
10.19.3	Form of Restricted Unit Agreement (Ratable Period of Restriction Ends in Thirds; Code Section 162(m) Goals).*	8-K	001-15787	10.5	December 11, 2014	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.19.4	Form of Restricted Unit Agreement (Three-Year "Cliff" Period of Restriction; No Code Section 162(m) Goals.*	8-K	001-15787	10.6	December 11, 2014	
10.19.5	Form of Restricted Unit Agreement (Ratable Period of Restriction Ends in Thirds; Code Section 162(m) Goals), effective January 1, 2016.*	10-K	001-15787	10.99	February 25, 2016	
10.19.6	Form of Restricted Unit Agreement (Three-Year "Cliff" Period of Restriction; No Code Section 162(m) Goals), effective January 1, 2016.*	10-K	001-15787	10.100	February 25, 2016	
10.19.7	Form of Restricted Unit Agreement (Ratable Period of Restriction Ends in Thirds), effective February 27, 2018.*	8-K	001-15787	10.5	February 20, 2018	
10.19.8	Form of Restricted Unit Agreement (Three-Year "Cliff" Period of Restriction), effective February 27, 2018.*	8-K	001-15787	10.6	February 20, 2018	
10.20.1	Form of Performance Share Agreement under the 2015 SIC Plan.*	8-K	001-15787	10.1	December 11, 2014	
10.20.2	Form of Performance Share Agreement under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.95	February 25, 2016	
10.20.3	Form of Performance Share Agreement, effective February 27, 2018.*	8-K	001-15787	10.1	February 20, 2018	
10.20.4	Form of Performance Share Agreement, effective January 1, 2019. *	8-K	001-15787	10.1	December 13, 2018	
10.21.1	Form of Performance Unit Agreement (effective February 11, 2013).*	8-K	001-15787	10.3	February 15, 2013	
10.21.2	Form of Performance Unit Agreement under the 2015 SIC Plan.*	8-K	001-15787	10.2	December 11, 2014	
10.21.3	Form of Performance Unit Agreement under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.96	February 25, 2016	
10.21.4	Form of Performance Unit Agreement, effective February 27, 2018.*	8-K	001-15787	10.2	February 20, 2018	
10.21.5	Form of Performance Unit Agreement, effective January 1, 2019. *	8-K	001-15787	10.2	December 13, 2018	
10.22.1	Award Agreement Supplement, effective January 1, 2016.*	10-K	001-15787	10.105	February 25, 2016	
10.22.2	Award Agreement Supplement, effective February 27, 2018.*	8-K	001-15787	10.7	February 20, 2018	
10.23.1	MetLife Auxiliary Pension Plan, dated December 21, 2007 (amending and restating Part I thereof, effective January 1, 2008).*	10-K	001-15787	10.95	February 27, 2013	
10.23.2	Amendment #1 to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated October 24, 2008 (effective October 1, 2008).*	10-K	001-15787	10.98	February 27, 2014	
10.23.3	Amendment Number Two to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 12, 2008 (effective December 31, 2008).*	10-K	001-15787	10.99	February 27, 2014	
10.23.4	Amendment Number Three to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008) dated March 25, 2009 (effective January 1, 2009).*	10-K	001-15787	10.71	February 25, 2016	
10.23.5	Amendment Number Four to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 16, 2009 (effective January 1, 2010).*	10-K	001-15787	10.102	February 27, 2015	
10.23.6	Amendment Number Five to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 21, 2010 (effective January 1, 2010).*	10-K	001-15787	10.73	February 25, 2016	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.23.7	Amendment Number Six to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 20, 2012 (effective January 1, 2012).*	10-K	001-15787	10.101	February 27, 2013	
10.23.8	MetLife Auxiliary Pension Plan, dated August 7, 2006 (as amended and restated, effective June 30, 2006).*	10-K	001-15787	10.60	March 1, 2017	
10.23.9	MetLife Auxiliary Pension Plan, dated December 21, 2006 (amending and restating Part I thereof, effective January 1, 2007).*	10-K	001-15787	10.61	March 1, 2017	
10.23.10	Amendment Number Seven to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 27, 2013 (effective December 10, 2013).*	10-K	001-15787	10.69	March 1, 2017	
10.23.11	Amendment Number 6 to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated March 5, 2018 (effective March 15, 2018).*	10-Q	001-15787	10.9	May 8, 2018	
10.23.12	Amendment Number 8 to the MetLife Auxiliary Retirement Plan (as amended and restated, effective January 1, 2008, formerly referred to as the “MetLife Auxiliary Pension Plan” until March 15, 2018), dated September 4, 2018 (effective March 15, 2018).*	10-Q	001-15787	10.2	November 8, 2018	
10.23.13	Amendment Number Nine to the MetLife Auxiliary Retirement Plan (as amended and restated, effective January 1, 2008), dated September 26, 2018 (effective January 1, 2023).*	10-Q	001-15787	10.3	November 8, 2018	
10.24.1	Alico Overseas Pension Plan, dated January 2009.*	10-K	001-15787	10.70	March 1, 2017	
10.24.2	Amendment Number One to the Alico Overseas Pension Plan (effective November 1, 2010), dated December 20, 2010.*	10-K	001-15787	10.71	March 1, 2017	
10.24.3	Amendment Number Two to the Alico Overseas Pension Plan (effective as of November 1, 2011), dated December 13, 2011.*	10-K	001-15787	10.72	March 1, 2017	
10.24.4	Amendment Number Three to the Alico Overseas Pension Plan, dated May 1, 2012 (effective January 1, 2012).*	8-K	001-15787	10.1	May 4, 2012	
10.24.5	Amendment Number Four to the Alico Overseas Pension Plan, dated June 19, 2017, effective July 1, 2017.*	10-Q	001-15787	10.6	November 6, 2017	
10.25	MetLife Deferred Compensation Plan For Globally Mobile Employees, effective July 31, 2014, for which Michel Khalaf became eligible July 1, 2017.*	10-Q	001-15787	10.4	November 6, 2017	
10.26.1	Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-K	001-15787	10.72	February 27, 2013	
10.26.2	Amendment 1 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated, Effective January 1, 2008).*	10-K	001-15787	10.74	February 27, 2015	
10.26.3	Amendment Number 2 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-K	001-15787	10.48	February 25, 2016	
10.26.4	Amendment Number 3 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-K	001-15787	10.75	February 27, 2013	
10.26.5	Amendment Number 4 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-K	001-15787	10.77	February 27, 2014	
10.26.6	Amendment Number 5 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-Q	001-15787	10.8	May 8, 2018	
10.27.1	MetLife Individual Distribution Sales Deferred Compensation Plan, effective January 1, 2010.*	S-8	333-198143	4.1	August 14, 2014	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.27.2	Amendment Number One to the MetLife Individual Distribution Sales Deferred Compensation Plan, effective January 1, 2010.*	S-8	333-198143	4.2	August 14, 2014	
10.27.3	Amendment Number Two to the MetLife Individual Distribution Sales Deferred Compensation Plan, effective January 1, 2011.*	S-8	333-198143	4.3	August 14, 2014	
10.27.4	Amendment Number Three to the MetLife Individual Distribution Sales Deferred Compensation Plan, effective January 1, 2013.*	S-8	333-198143	4.4	August 14, 2014	
10.27.5	Amendment Number Four to the MetLife Individual Distribution Sales Deferred Compensation Plan, effective January 1, 2014.*	S-8	333-198143	4.5	August 14, 2014	
10.27.6	Amendment Number Five to the MetLife Individual Distribution Sales Deferred Compensation Plan, effective June 1, 2014.*	S-8	333-198143	4.6	August 14, 2014	
10.28.1	MetLife Deferred Compensation Plan for Officers, as amended and restated, effective November 1, 2003.*	10-K	001-15787	10.78	February 27, 2014	
10.28.2	Amendment Number One to the MetLife Deferred Compensation Plan for Officers (as amended and restated as of November 1, 2003), dated May 4, 2005.*	10-K	001-15787	10.52	February 25, 2016	
10.28.3	Amendment Number Two to the MetLife Deferred Compensation Plan for Officers (as amended and restated as of November 1, 2003, effective December 14, 2005).*	10-K	001-15787	10.53	February 25, 2016	
10.28.4	Amendment Number Three to the MetLife Deferred Compensation Plan for Officers (as amended and restated as of November 1, 2003, effective February 26, 2007).*	10-K	001-15787	10.45	March 1, 2017	
10.29.1	MetLife Leadership Deferred Compensation Plan, dated November 2, 2006 (as amended and restated, effective with respect to salary and cash incentive compensation, January 1, 2005, and with respect to stock compensation, April 15, 2005).*	10-K	001-15787	10.46	March 1, 2017	
10.29.2	Amendment Number One to the MetLife Leadership Deferred Compensation Plan, dated December 13, 2007 (effective as of December 31, 2007).*	10-K	001-15787	10.81	February 27, 2013	
10.29.3	Amendment Number Two to the MetLife Leadership Deferred Compensation Plan, dated December 11, 2008 (effective December 31, 2008).*	10-K	001-15787	10.84	February 27, 2014	
10.29.4	Amendment Number Three to the MetLife Leadership Deferred Compensation Plan, dated December 11, 2009 (effective January 1, 2010).*	10-K	001-15787	10.85	February 27, 2015	
10.29.5	Amendment Number Four to the MetLife Leadership Deferred Compensation Plan, dated December 11, 2009 (effective December 31, 2009).*	10-K	001-15787	10.86	February 27, 2015	
10.29.6	Amendment Number Five to the MetLife Leadership Deferred Compensation Plan, dated December 11, 2009 (effective January 1, 2011).*	10-K	001-15787	10.60	February 25, 2016	
10.29.7	Amendment Number Six to the MetLife Leadership Deferred Compensation Plan, dated December 27, 2011 (effective January 1, 2011).*	10-K	001-15787	10.52	March 1, 2017	
10.29.8	Amendment Number Seven to the MetLife Leadership Deferred Compensation Plan, dated December 26, 2012 (effective January 1, 2013).*	10-K	001-15787	10.53	March 1, 2017	
10.29.9	Amendment Number Eight to the MetLife Leadership Deferred Compensation Plan, dated December 17, 2013 (effective January 1, 2014).*	10-K	001-15787	10.54	March 1, 2017	
10.29.10	Amendment Number Nine to the MetLife Leadership Deferred Compensation Plan, dated December 30, 2014 (effective January 1, 2015).*	10-K	001-15787	10.88	February 27, 2015	

Exhibit No.	Description	Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
		Incorporated By Reference				
10.29.11	Amendment Number Ten to the MetLife Leadership Deferred Compensation Plan, dated September 30, 2016 (effective October 1, 2016).*	10-K	001-15787	10.56	March 1, 2017	
10.29.12	Amendment Number Eleven to the MetLife Leadership Deferred Compensation Plan, dated September 30, 2016 (effective October 1, 2016).*	10-K	001-15787	10.57	March 1, 2017	
10.29.13	Amendment Number Twelve to the MetLife Leadership Deferred Compensation Plan, dated December 19, 2017 (effective January 1, 2017 and April 1, 2017).*					X
10.29.14	Amendment Number Thirteen to the MetLife Leadership Deferred Compensation Plan, dated December 4, 2018 (effective January 1, 2019).*					X
10.30	Member's Explanatory Handbook for the Metropolitan Life Insurance Company of Hong Kong Limited Healthcare Plan (2014).*	10-K	001-15787	10.79	February 25, 2016	
10.31.1	MetLife Plan for Transition Assistance for Officers, dated April 21, 2014 (as amended and restated, effective April 1, 2014 (the "MPTA")).*	10-Q	001-15787	10.2	August 8, 2014	
10.31.2	Amendment Number One to the MPTA, dated December 30, 2014 (effective January 1, 2015).*	10-K	001-15787	10.111	February 27, 2015	
10.31.3	Amendment Number Two to the MPTA, dated March 30, 2016 (effective April 1, 2016).*	10-K	001-15787	10.77	March 1, 2017	
10.31.4	Amendment Number Three to the MPTA, dated June 30, 2016 (effective June 30, 2016).*	10-K	001-15787	10.78	March 1, 2017	
10.31.5	Amendment Number Four to the MPTA, dated October 24, 2016 (effective October 31, 2016).*	10-K	001-15787	10.79	March 1, 2017	
10.31.6	Amendment Number Five to the MPTA, dated November 3, 2016 (effective October 1, 2016).*	10-K	001-15787	10.80	March 1, 2017	
10.31.7	Amendment Number Six to the MPTA, dated July 20, 2017 (effective July 1, 2017).*					X
10.31.8	Amendment Number Seven to the MPTA, dated May 1, 2018 (effective May 1, 2018).*					X
10.31.9	Amendment Number Eight to the MPTA, dated September 6, 2018 (effective October 1, 2018).*					X
10.31.10	Amendment Number Nine to the MPTA, dated November 15, 2018 (effective October 15, 2018).*					X
10.31.11	Amendment Number Ten to the MPTA, dated November 15, 2018 (effective October 15, 2018).*					X
10.32	Separation Agreement, Waiver and General Release, dated July 30, 2015, between MetLife Group, Inc. and William J. Wheeler.*	10-Q	001-15787	10.1	November 5, 2015	
10.33.1	Adjustment of certain compensation terms for Michel Khalaf, effective July 1, 2012.*	10-Q	001-15787	10.2	November 7, 2012	
10.33.2	Tax Equalization Agreement dated June 10, 2015 between MetLife, Inc. and Michel Khalaf.*	10-Q	001-15787	10.1	August 6, 2015	
10.33.3	Offer Letter, dated March 25, 2009, between American Life Insurance Company and Michel Khalaf.*	10-K	001-15787	10.2	March 1, 2017	
10.33.4	Letter of Understanding, dated June 15, 2017, effective July 1, 2017, with Michel Khalaf.*	10-Q	001-15787	10.3	November 6, 2017	
10.33.5	MetLife, Inc. and Metropolitan Life Insurance Company Compensation Committee and Board of Directors Resolutions of June 13, 2017 approving Michel Khalaf's eligibility to participate in the MetLife Deferred Compensation Plan For Globally Mobile Employees.*	10-Q	001-15787	10.5	November 6, 2017	

Exhibit No.	Description	Incorporated By Reference: Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.34.1	Employment Agreement between Christopher G. Townsend and MetLife Asia Pacific Limited, dated May 11, 2012.*	8-K	001-15787	10.1	May 16, 2012	
10.34.2	Letter Agreement dated June 11, 2015 between MetLife, Inc. and Christopher Townsend.*	8-K	001-15787	10.1	June 15, 2015	
10.34.3	Letter Agreement entered December 15, 2017 between MetLife, Inc. and Christopher Townsend.*	8-K	001-15787	10.1	November 21, 2017	
10.35	Sign-on Payments Letter, dated May 24, 2017, effective July 10, 2017, between MetLife Group, Inc. and Susan Podlogar.*	10-Q	001-15787	10.1	November 6, 2017	
10.36	Sign-on Payments Letter, dated June 14, 2017, effective September 11, 2017, between MetLife Group, Inc. and Ramy Tadros.*	10-Q	001-15787	10.2	November 6, 2017	
10.37	Separation Agreement, Waiver, And General Release, effective October 4, 2017, between MetLife Group, Inc. and Maria Morris*	10-K	001-15787	10.123	March 1, 2018	
10.38	Separation Agreement and General Release, effective June 12, 2018, between MetLife, Inc. and MetLife Group, Inc. and John C. R. Hele.*	8-K	001-15787	10.1	June 18, 2018	
10.39.1	Executive Deferred Compensation Plan for Oscar Schmidt, effective July 1, 2009.*	10-Q	001-15787	10.3	August 7, 2018	
10.39.2	Amendment Number One to the Executive Deferred Compensation Plan for Oscar Schmidt (effective July 1, 2009).*	10-Q	001-15787	10.4	August 7, 2018	
10.39.3	Amendment Number Two to the Executive Deferred Compensation Plan for Oscar Schmidt (effective July 1, 2009).*	10-Q	001-15787	10.5	August 7, 2018	
10.39.4	Amendment Number Three to the Executive Deferred Compensation Plan for Oscar Schmidt (effective July 1, 2009).*	10-Q	001-15787	10.6	August 7, 2018	
10.39.5	Settlement Agreement & General Release, dated November 19, 2013, between MetLife Group, Inc. and Oscar Schmidt.*	10-Q	001-15787	10.7	August 7, 2018	
10.39.6	Letter Agreement, dated April 25, 2018, between MetLife Inc. and Oscar Schmidt.*	10-Q	001-15787	10.8	August 7, 2018	
10.39.7	General Release And Waiver, dated April 27, 2018, between MetLife Group, Inc. and Oscar Schmidt.*	10-Q	001-15787	10.9	August 7, 2018	
10.40	Letter Agreement entered May 4, 2018 between MetLife, Inc. and John McCallion.*	8-K	001-15787	10.1	May 7, 2018	
10.41	Letter of Understanding, dated August 23, 2018, effective September 1, 2018, with Kishore Ponnavolu.*	10-Q	001-15787	10.1	November 8, 2018	
21.1	Subsidiaries of the Registrant.					X
23.1	Consent of Deloitte & Touche LLP.					X
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document					X
101.SCH	XBRL Taxonomy Extension Schema Document					X

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					X

* Indicates management contracts or compensatory plans or arrangements.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

February 21, 2019

METLIFE, INC.

By /s/ Steven A. Kandarian

Name: Steven A. Kandarian

Title: Chairman of the Board, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Cheryl W. Grisé Cheryl W. Grisé	Director	February 21, 2019
/s/ Carlos M. Gutierrez Carlos M. Gutierrez	Director	February 21, 2019
/s/ Gerald L. Hassell Gerald L. Hassell	Director	February 21, 2019
/s/ David L. Herzog David L. Herzog	Director	February 21, 2019
/s/ R. Glenn Hubbard R. Glenn Hubbard	Director	February 21, 2019
/s/ Edward J. Kelly, III Edward J. Kelly, III	Director	February 21, 2019
/s/ William E. Kennard William E. Kennard	Director	February 21, 2019
/s/ James M. Kilts James M. Kilts	Director	February 21, 2019
/s/ Catherine R. Kinney Catherine R. Kinney	Director	February 21, 2019
/s/ Diana McKenzie Diana McKenzie	Director	February 21, 2019
/s/ Denise M. Morrison Denise M. Morrison	Director	February 21, 2019

Signature	Title	Date
/s/ Steven A. Kandarian Steven A. Kandarian	Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)	February 21, 2019
/s/ John D. McCallion John D. McCallion	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 21, 2019
/s/ William C. O’Donnell William C. O’Donnell	Executive Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 21, 2019

MetLife

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MetLife

Navigating life together

2019 Annual Report

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2019

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-15787

MetLife, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**13-4075851**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
200 Park Avenue, New York, NY	**10166-0188**
(Address of principal executive offices)	*(Zip Code)*

(212) 578-9500

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01	MET	New York Stock Exchange
Floating Rate Non-Cumulative Preferred Stock, Series A, par value $0.01	MET PRA	New York Stock Exchange
Depositary Shares each representing a 1/1,000th interest in a share of 5.625% Non-Cumulative Preferred Stock, Series E	MET PRE	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 4.75% Non-Cumulative Preferred Stock, Series F	MET PRF	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, par value $0.01

Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D, par value $0.01

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☑	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant at June 30, 2019 was approximately $46.5 billion.

At February 14, 2020, 915,828,071 shares of the registrant's common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Form 10-K incorporates by reference certain information from the registrant's definitive proxy statement for the Annual Meeting of Shareholders to be held on June 16, 2020, to be filed by the registrant with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the year ended December 31, 2019.

Table of Contents

As used in this Form 10-K, "MetLife," the "Company," "we," "our" and "us" refer to MetLife, Inc., a Delaware corporation incorporated in 1999, its subsidiaries and affiliates.

Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K, including Management's Discussion and Analysis of Financial Condition and Results of Operations, may contain or incorporate by reference information that includes or is based upon forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements give expectations or forecasts of future events. These statements can be identified by the fact that they do not relate strictly to historical or current facts. They use words and terms such as "anticipate," "estimate," "expect," "project," "intend," "plan," "believe," "will," "continue," "target," and "remain" and other words and terms of similar meaning, or are tied to future periods, in connection with a discussion of future performance. In particular, these include statements relating to future actions, prospective services or products, future performance or results of current and anticipated services or products, sales efforts, expenses, the outcome of contingencies such as legal proceedings, trends in operations and financial results.

Many factors will be important in determining the results of MetLife, Inc., its subsidiaries and affiliates. Forward-looking statements are based on our assumptions and current expectations, which may be inaccurate, and on the current economic environment, which may change. These statements are not guarantees of future performance. They involve a number of risks and uncertainties that are difficult to predict. Results could differ materially from those expressed or implied in the forward-looking statements. Risks, uncertainties, and other factors that might cause such differences include the risks, uncertainties and other factors identified in MetLife, Inc.'s filings with the U.S. Securities and Exchange Commission. These factors include: (1) difficult economic conditions, including risks relating to interest rates, credit spreads, equity, real estate, obligors and counterparties, currency exchange rates, derivatives, and terrorism and security; (2) adverse capital and credit market conditions, which may affect our ability to meet liquidity needs and access capital, including through our credit facilities; (3) downgrades in our claims paying ability, financial strength or credit ratings; (4) availability and effectiveness of reinsurance, hedging or indemnification arrangements; (5) increasing cost and limited market capacity for statutory life insurance reserve financings; (6) the impact on us of changes to and implementation of the wide variety of laws and regulations to which we are subject; (7) regulatory, legislative or tax changes relating to our operations that may affect the cost of, or demand for, our products or services; (8) adverse results or other consequences from litigation, arbitration or regulatory investigations; (9) legal, regulatory and other restrictions affecting MetLife, Inc.'s ability to pay dividends and repurchase common stock; (10) MetLife, Inc.'s primary reliance, as a holding company, on dividends from subsidiaries to meet free cash flow targets and debt payment obligations and the applicable regulatory restrictions on the ability of the subsidiaries to pay such dividends; (11) investment losses, defaults and volatility; (12) potential liquidity and other risks resulting from our participation in a securities lending program and other transactions; (13) changes to securities and investment valuations, allowances and impairments taken on investments, and methodologies, estimates and assumptions; (14) differences between actual claims experience and underwriting and reserving assumptions; (15) political, legal, operational, economic and other risks relating to our global operations; (16) competitive pressures, including with respect to pricing, entry of new competitors, consolidation of distributors, the development of new products by new and existing competitors, and for personnel; (17) the impact of technological changes on our businesses; (18) catastrophe losses; (19) a deterioration in the experience of the closed block established in connection with the reorganization of Metropolitan Life Insurance Company; (20) impairment of goodwill or other long-lived assets, or the establishment of a valuation allowance against our deferred income tax asset; (21) changes in assumptions related to deferred policy acquisition costs, deferred sales inducements or value of business acquired; (22) exposure to losses related to guarantees in certain products; (23) ineffectiveness of risk management policies and procedures or models; (24) a failure in our cybersecurity systems or other information security systems or our disaster recovery plans; (25) any failure to protect the confidentiality of client information; (26) changes in accounting standards; (27) our associates taking excessive risks; (28) difficulties in or complications from marketing and distributing products through our distribution channels; (29) increased expenses relating to pension and other postretirement benefit plans; (30) inability to protect our intellectual property rights or claims of infringement of others' intellectual property rights; (31) difficulties, unforeseen liabilities, asset impairments, or rating agency actions arising from business acquisitions and dispositions, joint ventures, or other legal entity reorganizations; (32) unanticipated or adverse developments that could harm our expected operational or other benefits from the separation of Brighthouse Financial, Inc. and its subsidiaries; (33) the possibility that MetLife, Inc.'s Board of Directors may influence the outcome of stockholder votes through the voting provisions of the MetLife Policyholder Trust; (34) provisions of laws and our incorporation documents that may delay, deter or prevent takeovers and corporate combinations involving MetLife; and (35) other risks and uncertainties described from time to time in MetLife, Inc.'s filings with the U.S. Securities and Exchange Commission.

MetLife, Inc. does not undertake any obligation to publicly correct or update any forward-looking statement if MetLife, Inc. later becomes aware that such statement is not likely to be achieved. Please consult any further disclosures MetLife, Inc. makes on related subjects in reports to the U.S. Securities and Exchange Commission.

Note Regarding Reliance on Statements in Our Contracts

See “Exhibit Index — Note Regarding Reliance on Statements in Our Contracts” for information regarding agreements included as exhibits to this Annual Report on Form 10-K.

Part I

Item 1. Business

Index to Business

Business Overview

As used in this Form 10-K, "MetLife," the "Company," "we," "our" and "us" refer to MetLife, Inc., a Delaware corporation incorporated in 1999, its subsidiaries and affiliates.

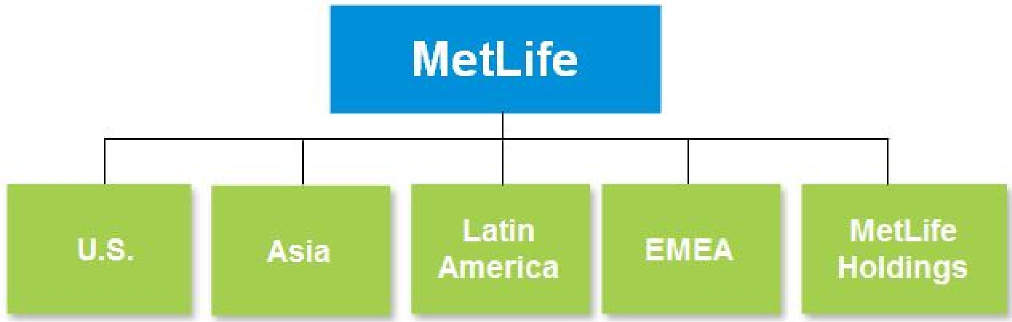
MetLife is one of the world's leading financial services companies, providing insurance, annuities, employee benefits and asset management. We hold leading market positions in the United States, Japan, Latin America, Asia, Europe and the Middle East.

We are also one of the largest institutional investors in the United States with a $490.4 billion general account portfolio invested primarily in fixed income securities (corporate, structured products, municipals, and government and agency) and mortgage loans, as well as real estate, real estate joint ventures, other limited partnerships and equity securities at December 31, 2019.

Our well-recognized brand, globally diversified and market-leading businesses, competitive and innovative product offerings and financial strength and expertise should help drive future growth and enhance shareholder value. Over the course of the next several years, we will execute on our Next Horizon strategy, creating value focusing on the following three pillars:

- ***Focus***
  - *Generate strong free cash flow by deploying capital and resources to the highest value opportunities.*
- ***Simplify***
  - *Simplify our business to deliver operational efficiency and an outstanding customer experience.*
- ***Differentiate***
  - *Drive competitive advantage through our brand, scale, talent, and innovation.*

MetLife is organized into five segments: U.S.; Asia; Latin America; Europe, the Middle East and Africa ("EMEA"); and MetLife Holdings. In addition, the Company reports certain of its results of operations in Corporate & Other. See "— Segments and Corporate & Other" and Note 2 of the Notes to the Consolidated Financial Statements for further information on the Company's segments and Corporate & Other. Management continues to evaluate the Company's segment performance and allocated resources and may adjust related measurements in the future to better reflect segment profitability.



In the United States, we provide a variety of insurance and financial services products, including life, dental, disability, property and casualty, guaranteed interest, stable value and annuities to both individuals and groups.

Outside the United States, we provide life, medical, dental, credit and other accident & health insurance, as well as annuities, endowment and retirement & savings products to both individuals and groups. We believe these businesses will continue to grow more quickly than our United States businesses.

Revenues derived from any customer did not exceed 10% of consolidated premiums, universal life and investment-type product policy fees and other revenues for the years ended December 31, 2019 and 2017. Revenues derived from FedEx Corporation were $6.0 billion for the year ended December 31, 2018, which represented 12% of consolidated premiums, universal life and investment-type product policy fees and other revenues. The revenue was from a single premium received for a pension risk transfer. Revenues derived from any other customer did not exceed 10% of consolidated premiums, universal life and investment-type product policy fees and other revenues for the year ended December 31, 2018.

Segments and Corporate & Other

U.S.

Product Overview

Our businesses in the U.S. segment offer a broad range of protection products and services aimed at serving the financial needs of our customers throughout their lives. These products are sold to corporations and their respective employees, other institutions and their respective members, as well as individuals. Our U.S. segment is organized into three businesses: Group Benefits, Retirement and Income Solutions (“RIS”) and Property & Casualty.

Group Benefits

We have built a leading position in the United States group insurance market through long-standing relationships with many of the largest corporate employers in the United States.

Our Group Benefits business offers life, dental, group short- and long-term disability (“LTD”), individual disability, accidental death and dismemberment (“AD&D”), vision and accident & health coverages, as well as prepaid legal plans. We also sell administrative services-only (“ASO”) arrangements to some employers.

Major Products	
Term Life Insurance	Provides a guaranteed benefit upon the death of the insured for a specified time period in return for the periodic payment of premiums. Premiums may be guaranteed at a level amount for the coverage period or may be non-level and non-guaranteed. Term contracts expire without value at the end of the coverage period when the insured party is still living.
Variable Life Insurance	Provides insurance coverage through a contract that gives the policyholder flexibility in investment choices and, depending on the product, in premium payments and coverage amounts, with certain guarantees. Premiums and account balances can be directed by the policyholder into a variety of separate account investment options or directed to the Company’s general account. In the separate account investment options, the policyholder bears the entire risk of the investment results. With some products, by maintaining certain premium level, policyholders may have the advantage of various guarantees that may protect the death benefit from adverse investment experience.
Universal Life Insurance	Provides insurance coverage on the same basis as variable life, except that premiums, and the resulting accumulated balances, are allocated only to the Company’s general account. With some products, by maintaining a certain premium level, policyholders may have the advantage of various guarantees that may protect the death benefit from adverse investment experience.
Dental Insurance	Provides insurance and ASO arrangements that assist employees, retirees and their families in maintaining oral health while reducing out-of-pocket expenses.
Disability	For groups and individuals, benefits such as income replacement, payment of business overhead expenses or mortgage protection, in the event of the disability of the insured.
Accident & Health Insurance	Provides accident, critical illness or hospital indemnity coverage to the insured.

Retirement and Income Solutions

Our RIS business provides funding and financing solutions that help institutional customers mitigate and manage liabilities primarily associated with their qualified, nonqualified and welfare employee benefit programs using a spectrum of life and annuity-based insurance and investment products.

Major Products	
Stable Value Products	• *General account guaranteed interest contracts* ("*GIC*s") are designed to provide stable value investment options within tax-qualified defined contribution plans by offering a fixed maturity investment with a guarantee of liquidity at contract value for participant transactions. • *Separate account GIC*s are available to defined contribution plan sponsors by offering market value returns on separate account investments with a general account guarantee of liquidity at contract value. • *Synthetic GICs or "wraps"* are contracts available only to the sponsor of a participant-directed defined contribution plan. The contract "wraps" a portfolio of investments owned by the plan to provide a guarantee that plan participants will always be able to transact in their accounts at contract value. Generally, a wrap contract means that participants will not experience negative returns. • *Private floating rate funding agreements* are generally privately-placed, unregistered investment contracts issued as general account obligations with interest credited based on the three-month London Interbank Offered Rate ("LIBOR"). These agreements are used for money market funds, securities lending cash collateral portfolios and short-term investment funds.
Pension Risk Transfers	*General account* and *separate account annuities* are offered in connection with defined benefit pension plans which include single premium buyouts allowing for full or partial transfers of pension liabilities. • *General account annuities* include nonparticipating group contract benefits purchased for retired employees or active employees covered under terminating or ongoing pension plans. • *Separate account annuities* include both participating and non-participating group contract benefits. Participating contract benefits are purchased for retired, terminated, or active employees covered under active or terminated pension plans. The assets supporting the guaranteed benefits for each contract are held in a separate account, however, the Company fully guarantees all benefit payments. Non-participating contracts have economic features similar to our general account product, but offer the added protection of an insulated separate account. Under accounting principles generally accepted in the United States of America ("GAAP"), these annuity contracts are treated as general account products.
Institutional Income Annuities	General account contracts that are guaranteed payout annuities purchased for employees upon retirement or termination of employment. They can be life or non-life contingent non-participating contracts which do not provide for any loan or cash surrender value and, with few exceptions, do not permit future considerations.
Tort Settlements	• *Structured settlement annuities* are customized annuities designed to serve as an alternative to a lump sum payment in a lawsuit initiated because of personal injury, wrongful death, or a workers' compensation claim or other claim for damages. Surrenders are generally not allowed, although commutations are permitted in certain circumstances. Guaranteed payments consist of life contingent annuities, term certain annuities and lump sums.

Capital Markets Investment Products	• *Funding agreement-backed notes* are part of medium term note programs, under which funding agreements are issued to special-purpose trusts that issue marketable notes in U.S. dollars or foreign currencies. The proceeds of these note issuances are used to acquire a funding agreement with matching interest and maturity payment terms from certain subsidiaries of MetLife, Inc. The notes are underwritten and marketed by major investment banks' broker-dealer operations and are sold to institutional investors. • *Funding agreement-backed commercial paper* is issued by a special purpose limited liability company which deposits the proceeds under a master funding agreement issued to it by Metropolitan Life Insurance Company ("MLIC"). The commercial paper is issued in U.S. dollars or foreign currencies, receives the same short-term credit rating as MLIC and is marketed by major investment banks' broker-dealer operations. • Through the Federal Home Loan Bank ("FHLB") advance program, certain of our insurance subsidiaries are members of regional FHLBs and issue *funding agreements* to their respective FHLBs. Through the Federal Agricultural Mortgage Corporation ("Farmer Mac") program, MLIC has issued funding agreements to a subsidiary of Farmer Mac.
Other Products and Services	Specialized life insurance products and funding agreements designed specifically to provide solutions for funding postretirement benefits and company-, bank- or trust-owned life insurance used to finance nonqualified benefit programs for executives.

Property & Casualty

Our Property & Casualty business offers personal lines property and casualty insurance, including private passenger automobile, homeowners' and personal excess liability insurance.

Major Products	
Personal Auto Insurance	Provides coverage for private passenger automobiles, utility automobiles and vans, motorcycles, motor homes, antique or classic automobiles, trailers, liability, uninsured motorist, no fault or personal injury protection, as well as collision and comprehensive insurance.
Homeowners' Insurance	Provides protection for homeowners, renters, condominium owners and residential landlords against losses arising out of damage to dwellings and contents from a wide variety of perils, as well as coverage for liability arising from ownership or occupancy.

Operations

Sales Distribution

In the U.S., we market our products and services through various distribution channels. Our Group Benefits and RIS products are sold via sales forces primarily comprised of MetLife employees. Personal lines property and casualty insurance products are directly marketed to employees at their employer's worksite. Personal and commercial lines property and casualty insurance products are also marketed and sold to individuals and small business owners by independent agents and property and casualty specialists through a direct marketing channel.

Group Benefits Distribution

We distribute Group Benefits products and services through a sales force that is segmented by the size of the target customer. Marketing representatives sell either directly to corporate and other group customers or through an intermediary, such as a broker or consultant. In addition, voluntary products are sold by specialists. Employers have been emphasizing voluntary products and, as a result, we have increased our focus on communicating and marketing to employees in order to further foster sales of those products.

We have entered into several operating joint ventures and other arrangements with third parties to expand opportunities to market and distribute Group Benefits products and services. We also sell our Group Benefits products and services through sponsoring organizations and affinity groups and provide life and dental coverage to certain employees of the U.S. Government.

Retirement and Income Solutions Distribution

We distribute RIS products and services through dedicated sales teams and relationship managers. We may sell products directly to benefit plan sponsors and advisors or through brokers, consultants or other intermediaries. In addition, these sales professionals work with individual, group and global distribution areas to better reach and service customers, brokers, consultants and other intermediaries.

Property & Casualty Distribution

We market and sell Property & Casualty products through independent agents, property and casualty specialists and brokers.

We are a leading provider of personal lines property and casualty insurance products offered to employees at their employer's worksite. Marketing representatives market personal lines property and casualty insurance products to employers through a variety of means, including broker referrals and cross-selling to group customers. Once permitted by the employer, MetLife commences marketing efforts to employees, enabling them to purchase coverage and to request payroll deduction over the telephone.

Asia

Product Overview

Our Asia segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees.

Major Products	
Life Insurance	Provides whole and term life, endowments, universal and variable life, as well as group life products.
Accident & Health Insurance	Provides a full range of accident & health products, including medical reimbursement, hospitalization, cancer, critical illness, disability, income protection, personal accident coverage and group health products.
Retirement and Savings	Provides both fixed and variable annuities, as well as regular savings products.

Operations

We operate in 10 jurisdictions throughout Asia, with our largest operation in Japan. We also have an innovation center in Singapore and a data analytics center of excellence in Malaysia. See Note 3 of the Notes to the Consolidated Financial Statements for information regarding the Company's definitive agreement to sell its two wholly-owned subsidiaries, MetLife Limited and Metropolitan Life Insurance Company of Hong Kong Limited (collectively, "MetLife Hong Kong").

Sales Distribution

Our Asia operations are geographically diverse encompassing both developed and emerging markets. We market our products and services through a range of proprietary and third-party distribution channels.

In Japan, our digitally-enabled face-to-face channels, along with bancassurance and direct marketing, continue to be critical to our overall distribution strategy. Our competitive advantage in bancassurance is based on robust distribution relationships with Japan's mega banks, trust banks and various regional banks. The direct marketing channel focuses on providing accident & health solutions to customers using a mix of online-to-offline and online binding distribution modes.

Outside of Japan, our distribution strategies vary by market and leverage a combination of career and independent agencies, bancassurance and direct marketing (including inbound and outbound telemarketing, online lead generation and sales). Our expertise in direct marketing is supported by our proprietary data analytics center of excellence in Malaysia that generates customer insights and improves lead management. In select markets, we also use independent brokers and our employee sales force to sell group products.

Latin America

Product Overview

Our Latin America segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees.

Major Products	
Life Insurance	Provides whole and term life, endowments, universal and variable life, as well as group life products.
Retirement and Savings	Provides fixed annuities and pension products. Fixed income annuities provide for both asset accumulation and asset distribution needs. Our savings oriented pension products are offered under a mandatory privatized social security system.
Accident & Health Insurance	Provides group and individual major medical, accidental, and supplemental health products, including AD&D, hospital indemnity, medical reimbursement, and medical coverage for serious medical conditions, as well as dental products.
Credit Insurance	Provides policies designed to fulfill certain loan obligations in the event of the policyholder's death.

Operations

In Latin America, our largest operations are in Mexico and Chile.

Sales Distribution

In Latin America, we market our products and services through a multi-channel distribution strategy which varies by geographic region and stage of market development.

The region has an exclusive and captive agency distribution network which also sells a variety of individual life, accident & health, and pension products. In the direct marketing channel, we work with sponsors and telesales representatives selling mainly accident & health and individual life products directly to consumers. We also work with brokers and independent agents with regard to sales of group and individual life, accident & health, group medical, dental and pension products, and worksite marketing.

EMEA

Product Overview

Our EMEA segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees.

Major Products	
Life Insurance	Provides both traditional and non-traditional life insurance products, such as whole and term life, endowments and variable life products, as well as group term life programs in most markets.
Accident & Health Insurance	Provides individual and group personal accident and supplemental health products, including AD&D, hospital indemnity, scheduled medical reimbursement plans, and coverage for serious medical conditions. In addition, we provide individual and group major medical coverage in select markets.
Retirement and Savings	Provides fixed annuities and pension products, including group pension programs in select markets.
Credit Insurance	Provides policies designed to fulfill certain loan obligations in the event of the policyholder's death.

Operations

We operate in many countries across EMEA, with our largest operations in Turkey, the Gulf region and Poland. Our EMEA operations are geographically diverse encompassing both developed (Western Europe) and emerging (Central and Eastern Europe, Middle East and Africa) markets. In more mature markets, we are a niche player with a very focused strategy on our preferred market segments. We have strong market presence in emerging markets leveraging a multi-channel distribution strategy.

Sales Distribution

Our businesses in EMEA employ a multi-channel distribution strategy, including captive and independent agency, bancassurance, employee benefits and direct-to-consumer distribution channels.

MetLife Holdings

Product Overview

Our MetLife Holdings segment consists of operations relating to products and businesses, previously included in MetLife's former retail business, that we no longer actively market in the United States, such as variable, universal, term and whole life insurance, variable, fixed and index-linked annuities, and long-term care insurance, as well as the assumed variable annuity guarantees from our former operating joint venture in Japan.

Major Products	
Variable, Universal and Term Life Insurance	These life products are similar to those offered by our Group Benefits business, except that these products were historically marketed to individuals through various retail distribution channels. For a description of these products, see "— U.S. — Product Overview — Group Benefits."
Whole Life Insurance	Provides a benefit upon the death of the insured in return for the periodic payment of a fixed premium over a predetermined period. Whole life insurance includes policies that provide a participation feature in the form of dividends. Policyholders may receive dividends in cash, or apply them to increase death benefits, increase cash values available upon surrender or reduce the premiums required to maintain the contract in-force.
Variable Annuities	Provides for both asset accumulation and asset distribution needs. Variable annuities allow the contractholder to allocate deposits into various investment options in a separate account, as determined by the contractholder. In certain variable annuity products, contractholders may also choose to allocate all or a portion of their account to the Company's general account and are credited with interest at rates we determine, subject to specified minimums. Contractholders may also elect certain minimum death benefit and minimum living benefit guarantees for which additional fees are charged and where asset allocation restrictions may apply.
Fixed and Indexed-Linked Annuities	Fixed annuities provide for both asset accumulation and asset distribution needs. Deposits made into deferred annuity contracts are allocated to the Company's general account and are credited with interest at rates we determine, subject to specified minimums. Fixed income annuities provide a guaranteed monthly income for a specified period of years and/or for the life of the annuitant. Additionally, the Company has issued indexed-linked annuities which allow the contractholder to participate in returns from equity indices.
Long-term Care	Provides protection against the potentially high costs of long-term health care services. Generally pay benefits to insureds who need assistance with activities of daily living or have a cognitive impairment.

Corporate & Other

Overview

Corporate & Other contains various start-up, developing and run-off businesses. Also included in Corporate & Other are: the excess capital, as well as certain charges and activities, not allocated to the segments (including external integration and disposition costs, internal resource costs for associates committed to acquisitions and dispositions and enterprise-wide strategic initiative restructuring charges), interest expense related to the majority of the Company's outstanding debt, expenses associated with certain legal proceedings and income tax audit issues, the elimination of intersegment amounts (which generally relate to affiliated reinsurance, investment expenses and intersegment loans, bearing interest rates commensurate with related borrowings), and the Company's investment management business (through which the Company provides public fixed income, private capital and real estate investment solutions to institutional investors worldwide).

Policyholder Liabilities

We establish, and carry as liabilities, actuarially determined amounts that are calculated to meet policy obligations when a policy matures or is surrendered, an insured dies or becomes disabled or upon the occurrence of other covered events, or to provide for future annuity payments. Our liabilities for future policy benefits and claims are established based on estimates by actuaries of how much we will need to pay for future benefits and claims. For life insurance and annuity products, we calculate these liabilities based on assumptions and estimates, including estimated premiums to be received over the assumed life of the policy, the timing of the event covered by the insurance policy, the amount of benefits or claims to be paid and the investment returns on the investments we make with the premiums we receive. We establish liabilities for claims and benefits based on assumptions and estimates of losses and liabilities incurred. Amounts for actuarial liabilities are computed and reported on the consolidated financial statements in conformity with GAAP. For more details on policyholder liabilities see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Summary of Critical Accounting Estimates — Liability for Future Policy Benefits" and "Management's Discussion and Analysis of Financial Condition and Results of Operations — Policyholder Liabilities."

Pursuant to applicable insurance laws and regulations, MetLife, Inc.'s insurance subsidiaries, including affiliated captive reinsurers, establish statutory reserves, reported as liabilities, to meet their obligations on their respective policies. These statutory reserves are established in amounts sufficient to meet policy and contract obligations, when taken together with expected future premiums and interest at assumed rates. Statutory reserves and actuarial liabilities for future policy benefits generally differ based on accounting guidance.

U.S. state insurance laws and regulations require certain MetLife entities to submit to superintendents of insurance, with each annual report, an opinion and memorandum of a qualified actuary that the statutory reserves and related actuarial amounts recorded in support of specified policies and contracts, and the assets supporting such statutory reserves and related actuarial amounts, make adequate provision for their statutory liabilities with respect to these obligations.

Insurance regulators in many of the non-U.S. jurisdictions in which we operate require certain MetLife entities to prepare a sufficiency analysis of the reserves presented in the locally required regulatory financial statements, and to submit that analysis to the regulatory authorities. See "— Regulation — Insurance Regulation — Policy and Contract Reserve Adequacy Analysis."

Underwriting and Pricing

Our Global Risk Management Department ("GRM") contains a dedicated unit, the primary responsibility of which is the development of product pricing standards and independent pricing and underwriting oversight for MetLife's insurance businesses. Further important controls around management of underwriting and pricing processes include regular experience studies to monitor assumptions against expectations, formal new product approval processes, periodic updates to product profitability studies and the use of reinsurance to manage our exposures, as appropriate. See "— Reinsurance Activity."

Underwriting

Underwriting generally involves an evaluation of applications by a professional staff of underwriters and actuaries, who determine the type and the amount of insurance risk that we are willing to accept. We employ detailed underwriting policies, guidelines and procedures designed to assist the underwriter to properly assess and quantify such risks before issuing policies to qualified applicants or groups.

Insurance underwriting considers not only an applicant's medical history, but also other factors such as financial profile, foreign travel, vocations and alcohol, drug and tobacco use. Group underwriting generally evaluates the risk characteristics of each prospective insured group, although with certain voluntary products and for certain coverages, members of a group may be underwritten on an individual basis. We generally perform our own underwriting; however, certain policies are reviewed by intermediaries under guidelines established by us. Generally, we are not obligated to accept any risk or group of risks from, or to issue a policy or group of policies to, any employer or intermediary. Requests for coverage are reviewed on their merits and a policy is not issued unless the particular risk or group has been examined and approved in accordance with our underwriting guidelines.

The underwriting conducted by our remote underwriting offices and intermediaries, as well as our corporate underwriting office, is subject to periodic quality assurance reviews to maintain high standards of underwriting and consistency. Such offices are also subject to periodic external audits by reinsurers with whom we do business.

We have established oversight of the underwriting process that facilitates quality sales and serves the needs of our customers, while supporting our financial strength and business objectives. Our goal is to achieve the underwriting, mortality and morbidity levels reflected in the assumptions in our product pricing. This is accomplished by determining and establishing underwriting policies, guidelines, philosophies and strategies that are competitive and suitable for the customer, the agent and us.

For our Property & Casualty business, our underwriting function has six principal aspects: evaluating potential voluntary and worksite employer accounts and independent agencies; establishing guidelines for the binding of risks; reviewing coverage bound by agents; underwriting potential insureds, on a case by case basis, presented by agents outside the scope of their binding authority; pursuing information necessary in certain cases to enable issuance of a policy within our guidelines; and ensuring that renewal policies continue to be written at rates commensurate with risk. Subject to very few exceptions, agents in each of the distribution channels have binding authority for risks which fall within our published underwriting guidelines. Risks falling outside the underwriting guidelines may be submitted for approval to the underwriting department; alternatively, agents in such a situation may call the underwriting department to obtain authorization to bind the risk themselves. In most states, we generally have the right within a specified period (usually the first 60 days) to cancel any policy.

We continually review our underwriting guidelines in light of applicable regulations and to ensure that our policies remain competitive and supportive of our marketing strategies and profitability goals.

Pricing

Product pricing reflects our pricing standards, which are consistent for our global businesses. GRM, as well as regional finance and product teams, are responsible for pricing and oversight for all of our insurance businesses. Product pricing is based on the expected payout of benefits calculated through the use of assumptions for mortality, morbidity, expenses, persistency and investment returns, as well as certain macroeconomic factors, such as inflation. Investment-oriented products are priced based on various factors, which may include investment returns, expenses, persistency and optionality and possible variability of results. For certain products, pricing may include prospective and retrospective experience rating features. Prospective experience rating involves the evaluation of past experience for the purpose of determining future premium rates and we bear all prior year gains and losses. Retrospective experience rating also involves the evaluation of past experience for the purpose of determining the actual cost of providing insurance for the customer; however, the contract includes certain features that allow us to recoup certain losses or distribute certain gains back to the policyholder based on actual prior years' experience.

Rates for group benefit products are based on anticipated earnings and expenses for the book of business being underwritten. Renewals are generally reevaluated annually or biannually and are re-priced to reflect actual experience on such products. Products offered by RIS are priced on demand. Pricing reflects expected investment returns, as well as mortality, longevity and expense assumptions appropriate for each product. This business is generally nonparticipating and illiquid, as policyholders have few or no options or contractual rights to cash values.

Rates for individual life insurance products are highly regulated and generally must be approved by the regulators of the jurisdictions in which the product is sold. Generally, such products are renewed annually and may include pricing terms that are guaranteed for a certain period of time. Individual disability income products are based on anticipated results for the occupation being underwritten. Fixed and variable annuity products are also highly regulated and approved by the respective regulators. Such products generally include penalties for early withdrawals and policyholder benefit elections to tailor the form of the product's benefits to the needs of the opting policyholder. We periodically reevaluate the costs associated with such options and will periodically adjust pricing levels on our guarantees. Further, from time to time, we may also reevaluate the type and level of guarantee features currently being offered.

For our Property & Casualty business, our ability to set and change rates is subject to regulatory oversight. Rates for our major lines of property and casualty insurance are based on our proprietary database, rather than relying on rating bureaus. We determine prices in part from a number of variables specific to each risk. The pricing of personal lines insurance products takes into account, among other things, the expected frequency and severity of losses, the costs of providing coverage (including the costs of acquiring policyholders and administering policy benefits and other administrative and overhead costs such as reinsurance), competitive factors and profit considerations. The major pricing variables for personal lines insurance include characteristics of the insured property, such as age, make and model or construction type, as well as characteristics of the insureds, such as driving record and loss experience, and the insured's personal financial management. As a condition of our license to do business in each state, we, like all other personal lines insurers, are required to write or share the cost of private passenger automobile and homeowners insurance for higher risk individuals who would otherwise be unable to obtain such insurance. This "involuntary" market, also called the "shared market," is governed by the applicable laws and regulations of each state, and policies written in this market are generally written at rates higher than standard rates and typically afford less coverage.

We continually review our pricing guidelines in light of applicable regulations and to ensure that our policies remain competitive and supportive of our marketing strategies and profitability goals.

Reinsurance Activity

We enter into reinsurance agreements primarily as a purchaser of reinsurance for our various insurance products and also as a provider of reinsurance for some insurance products issued by third parties. We participate in reinsurance activities in order to limit losses, minimize exposure to significant risks, and provide additional capacity for future growth. We enter into various agreements with reinsurers that cover individual risks, group risks or defined blocks of business, primarily on a coinsurance, yearly renewable term, excess or catastrophe excess basis. These reinsurance agreements spread risk and minimize the effect of losses. The extent of each risk retained by us depends on our evaluation of the specific risk, subject, in certain circumstances, to maximum retention limits based on the characteristics of coverages. We also cede first dollar mortality risk under certain contracts. In addition to reinsuring mortality risk, we reinsure other risks, as well as specific coverages. We obtain reinsurance for capital requirement purposes, as well as when the economic impact of the reinsurance agreement makes it appropriate to do so.

We also enter into reinsurance agreements for risk and capital management purposes among affiliates, including affiliated captive reinsurers. Captive reinsurers are affiliated insurance companies licensed under specific provisions of insurance law of their respective jurisdictions, such as the Special Purpose Financial Captive law adopted by several states, including Vermont and South Carolina, and have a very narrow business plan that specifically restricts the majority or all of their activity to reinsuring business from their affiliates. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Capital — Affiliated Captive Reinsurance Transactions."

For information regarding reinsurance activity with respect to our U.S., Asia, Latin America, EMEA and MetLife Holdings business, our catastrophic coverage, and information regarding ceded reinsurance recoverable balances, included in premiums, reinsurance and other receivables on the consolidated balance sheets, see Note 6 of the Notes to the Consolidated Financial Statements.

Regulation

Overview

In the United States, our life insurance companies are regulated primarily at the state level by state insurance regulators, with some products and services also subject to federal regulation. MetLife, Inc. and its U.S. insurance subsidiaries are subject to regulation under the insurance holding company laws of various U.S. jurisdictions. Furthermore, some of MetLife's operations, products and services are subject to consumer protection laws, securities, broker-dealer and investment adviser regulations, environmental and unclaimed property laws and regulations, and the Employee Retirement Income Security Act of 1974 ("ERISA").

Outside of the United States, our insurance operations are principally regulated by insurance regulatory authorities in the jurisdictions in which they are located or operate. In addition, our investment and pension companies outside of the U.S. are subject to oversight by the relevant securities, pension and other authorities of the jurisdictions in which the companies operate. Our non-U.S. insurance businesses are also subject to current and developing solvency regimes, which impose various capital and other requirements. Additionally, we may be subject in the future to enhanced capital standards, supervision and additional requirements of other international and global regulatory initiatives.

We expect the scope and extent of regulation and regulatory oversight generally to continue to increase. The regulatory environment and changes in laws in the jurisdictions in which we operate could have a material adverse effect on our results of operations.

Insurance Regulation

Insurance regulation generally aims at supervising and regulating insurers, with the goal of protecting policyholders and ensuring that insurance companies remain solvent. Insurance regulators have increasingly sought information about the potential impact of activities in holding company systems as a whole, and some jurisdictions have adopted laws and regulations enhancing "group-wide" supervision, including model laws and regulations developed through the National Association of Insurance Commissioners' ("NAIC") Solvency Modernization Initiative. See "— NAIC" for information regarding group-wide supervision.

Each of MetLife's insurance subsidiaries is licensed and regulated in each jurisdiction where it conducts insurance business. The extent of such regulation varies, but most jurisdictions have laws and regulations governing the financial aspects and business conduct of insurers. Insurance laws, including state laws in the United States, grant insurance regulatory authorities broad administrative powers with respect to, among other things:

- licensing companies and agents to transact business;
- calculating the value of assets to determine compliance with statutory requirements;
- mandating certain insurance benefits;
- regulating certain premium rates;
- reviewing and approving certain policy forms, including required policyholder disclosures;
- regulating unfair trade and claims practices, including through the imposition of restrictions on marketing and sales practices, distribution arrangements and payment of inducements, and identifying and paying to the states or local authorities benefits and other property that is not claimed by the owners;
- regulating advertising;
- protecting privacy;
- establishing statutory capital and reserve requirements and solvency standards;
- specifying the conditions under which a ceding company can take credit for reinsurance in its statutory financial statements (i.e., reduce its reserves by the amount of reserves ceded to a reinsurer);
- fixing maximum interest rates on insurance policy loans and minimum rates for guaranteed crediting rates on life insurance policies and annuity contracts;
- adopting and enforcing sales standards with respect to the sale of annuities and other insurance products;
- approving changes in control of insurance companies;
- restricting the payment of dividends and other transactions between affiliates; and
- regulating the types and amounts of investments.

Each insurance subsidiary is required to file reports, generally including detailed annual financial statements, with insurance regulatory authorities in each of the jurisdictions in which it does business, and its operations and accounts are subject to periodic examination by such authorities. These subsidiaries must also file, and in many jurisdictions and in some lines of insurance obtain regulatory approval for, rules, rates and policy forms relating to the insurance written in the jurisdictions in which they operate.

Insurance and securities regulatory authorities and other law enforcement agencies and attorneys general from time to time make inquiries regarding compliance by MetLife, Inc. and its insurance subsidiaries with insurance, securities and other laws and regulations regarding the conduct of our insurance and securities businesses. We cooperate with such inquiries and take corrective action when warranted. See Note 21 of the Notes to the Consolidated Financial Statements.

U.S. Federal Initiatives

Although the insurance business in the United States is primarily regulated by the states, federal initiatives often have an impact on our business in a variety of ways. From time to time, federal measures are proposed that may significantly affect the insurance business. Impacted areas include financial services regulation, securities regulation, derivatives regulation, pension regulation, health care regulation, privacy, tort reform legislation and taxation. In addition, various forms of direct and indirect federal regulation of insurance have been proposed from time to time, including proposals for the establishment of an optional federal charter for insurance companies. See "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition."

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank"), the Financial Stability Oversight Council was given the authority to designate certain financial companies as non-bank systemically important financial institutions ("non-bank SIFI") subject to supervision by the Board of Governors of the Federal Reserve System ("Federal Reserve Board") and the Federal Reserve Bank of New York (collectively with the Federal Reserve Board, the "Federal Reserve").

Dodd-Frank also established the Federal Insurance Office within the Department of the Treasury, which has the authority to participate in the negotiations of international insurance agreements with foreign regulators for the U.S., as well as to collect information about the insurance industry and recommend prudential standards.

Under the provisions of Dodd-Frank relating to the resolution or liquidation of certain types of financial institutions, if MetLife, Inc. or another financial institution were to become insolvent or were in danger of defaulting on its obligations, it could be compelled to undergo liquidation with the Federal Deposit Insurance Corporation ("FDIC") as receiver. For this new regime to be applicable, a number of determinations would have to be made, including that a default by the affected company would have serious adverse effects on financial stability in the U.S. While under this new regime an insurance company would be resolved in accordance with state insurance law, if the FDIC were to be appointed as the receiver for another type of company (including an insurance holding company such as MetLife, Inc.), the liquidation of that company would occur under the provisions of the new liquidation authority, and not under the Bankruptcy Code, which ordinarily governs liquidations. The FDIC's purpose under the liquidation regime is to mitigate the systemic risks the institution's failure poses, which is different from that of a bankruptcy trustee under the Bankruptcy Code. In such a liquidation, the holders of such company's debt could in certain respects be treated differently than under the Bankruptcy Code. As required by Dodd-Frank, the FDIC has established rules relating to the priority of creditors' claims and the potentially dissimilar treatment of similarly situated creditors. These provisions could apply to some financial institutions whose outstanding debt securities we hold in our investment portfolios.

Dodd-Frank also includes provisions that may impact the investments and investment activities of MetLife, Inc. and its subsidiaries, including the federal regulation of such activities. Dodd-Frank and its implementing regulations have been subject to various changes since the law was originally adopted. The past changes and potential future changes mean that we are not able to identify with certainty all of the risks and opportunities, if any, posed to our businesses. See "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition."

Health Care Regulation

The Patient Protection and Affordable Care Act ("PPACA") and The Health Care and Education Reconciliation Act of 2010 (together, the "Affordable Care Act"), impose obligations on MetLife as an enterprise, and as a provider of non-medical health insurance benefits and a purchaser of certain of these products. In 2014, we became subject to an excise tax called the "health insurer fee," the cost of which is primarily passed on to group purchasers of certain of our dental and vision insurance products. The health insurer fee was suspended for the 2019 calendar year but is in force for the 2020 calendar year. Previously, the health insurer fee had alternating years of suspension since 2015. On December 20, 2019, the health insurer fee was repealed for the calendar years beginning after December 31, 2020. However, despite the repeal, the demand for, and pricing of, products remains subject to tax uncertainty. The Affordable Care Act and its related regulations have resulted in increased and unpredictable costs to provide certain products and may have additional adverse effects. It has also harmed our competitive position, as the Affordable Care Act has a disparate impact on our products compared to products offered by our not-for-profit competitors. See "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition."

On July 14, 2014, the District of Columbia ("D.C.") adopted a law that imposes an assessment on health insurers doing business in D.C., including those that issue non-medical health-related products that are not subject to regulation under the Affordable Care Act. MetLife and other similarly impacted insurers are currently funding litigation sponsored by the American Council of Life Insurers ("ACLI") to challenge the legality of D.C.'s assessment. While the financial impact to the Company of D.C.'s action will be minimal, if other states decide to adopt this model, there could be an impact on product pricing and sales. Additionally, a number of states have levied, or proposed legislation to levy, assessments in connection with their healthcare exchanges, and other states may also consider levying assessments on both medical and non-medical health insurers to fund their healthcare exchanges.

The Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010 also includes certain provisions for defined benefit pension plan funding relief. Through our RIS business, we offer general account and separate account group annuity products that enable a plan sponsor to transfer these risks, often in connection with the termination of defined benefit pension plans. These provisions may impact the likelihood or timing of corporate plan sponsors terminating their plans or engaging in transactions to transfer pension obligations to an insurance company. Such rules could affect our mix of business, resulting in fewer pension risk transfers and more non-guaranteed funding products.

Guaranty Associations and Similar Arrangements

Many jurisdictions in which our insurance subsidiaries are admitted to transact business require life, health and property and casualty insurers doing business within that jurisdiction to participate in guaranty associations, or similar arrangements, in order to pay certain contractual insurance benefits owed pursuant to insurance policies issued by impaired, insolvent or failed insurers, or those that may become impaired, insolvent or fail. We have established liabilities for guaranty fund assessments that we consider adequate. See Note 21 of the Notes to the Consolidated Financial Statements for additional information on the guaranty association assessments.

Insurance Regulatory Examinations and Other Activities

As part of their regulatory oversight process, U.S. state insurance departments conduct periodic detailed examinations of the books, records, accounts, and business practices of insurers domiciled in their states. State insurance departments also have the authority to conduct examinations of non-domiciliary insurers that are licensed in their states. Except as otherwise disclosed below regarding a consent order and in Note 21 of the Notes to the Consolidated Financial Statements, during the years ended December 31, 2019, 2018 and 2017, MetLife did not receive any material adverse findings resulting from state insurance department examinations of its insurance subsidiaries. On October 15, 2018, MetLife received notice that insurance regulators for the states of Pennsylvania, California, Florida, North Dakota and New Hampshire had scheduled a multistate market conduct re-examination of MetLife and its affiliates relating to compliance with a regulatory settlement agreement on unclaimed proceeds and the examination is ongoing. In 2019, MetLife entered into a consent order with the New York State Department of Financial Services ("NYDFS") relating to the open quinquennial exam and paid a $19.75 million fine and an additional $1.5 million in customer restitution and submitted remediation plans for approval.

Regulatory authorities in a small number of states, the Financial Industry Regulatory Authority ("FINRA") and, occasionally, the U.S. Securities and Exchange Commission (the "SEC") have conducted investigations or made inquiries relating to sales of individual life insurance policies, annuities or other products written by MLIC, General American Life Insurance Company ("GALIC"), which merged with and into Metropolitan Tower Life Insurance Company ("MTL") on April 27, 2018, and MetLife Securities, Inc., a broker-dealer which was sold in 2016. These investigations have focused primarily on the conduct of particular financial services representatives, the sale of unregistered or unsuitable products, the misuse of client assets, and sales and replacements of annuities and certain riders on such annuities. Over the past several years, these and a number of investigations by other regulatory authorities were resolved for monetary payments and certain other relief, including restitution payments. We may continue to receive, and may resolve, further investigations and actions on these matters in a similar manner.

Insurance standard-setting and regulatory support organizations, including the NAIC, encourage insurance supervisors to establish Supervisory Colleges for U.S.-based insurance groups with international operations to facilitate cooperation and coordination among the insurance groups' supervisors and to enhance the member regulators' understanding of an insurance group's risk profile. MetLife's lead regulator, the NYDFS, regularly chairs Supervisory College meetings that are attended by MetLife's key U.S. and non-U.S. regulators.

Regulators supervise our non-U.S. insurance businesses using techniques such as periodic examinations of insurance company books and records, financial reporting requirements, market conduct examinations and policy filing requirements. The European Insurance and Occupational Pensions Authority ("EIOPA"), along with European legislation, requires European regulators, such as the Central Bank of Ireland, to establish Supervisory Colleges for European Economic Area ("EEA")-based insurance groups with significant European operations, including MetLife, to facilitate cooperation and coordination among the insurance groups' European supervisors and to enhance the member state regulators' understanding of an insurance group's risk profile.

We and other insurance and pension fund companies have provided certain information to the Chilean insurance and pension regulators regarding annuities sales practices. The regulators subsequently found that non-employee sales agents of MetLife Chile and other insurers had engaged in improper sales practices and that ProVida S.A. and other pension fund companies provided improper advice to customers. We have responded and regulatory proceedings are ongoing. The regulators have not yet proposed any actions or sanctions against any MetLife company.

In addition, claims payment practices by insurance companies have received increased scrutiny from regulators. See Note 21 of the Notes to the Consolidated Financial Statements for further information regarding group annuity benefits, retained asset accounts and unclaimed property inquiries, including pension benefits.

Policy and Contract Reserve Adequacy Analysis

Annually, our U.S. insurance subsidiaries, including affiliated captive reinsurers, are required to conduct an analysis of the adequacy of all statutory reserves. In each case, a qualified actuary must submit an opinion that states that the statutory reserves make adequate provision, according to accepted actuarial standards of practice, for the anticipated cash flows required by the contractual obligations and related expenses of the U.S. insurance subsidiary. The adequacy of the statutory reserves is considered in light of the assets held by the insurer with respect to such reserves and related actuarial items including, but not limited to, the investment earnings on such assets, and the consideration anticipated to be received and retained under the related policies and contracts. The Company may increase reserves in order to submit an opinion without qualification. Since the inception of this requirement, our U.S. insurance subsidiaries that are required by their states of domicile to provide these opinions have provided such opinions without qualifications.

Many of our non-U.S. insurance operations are also required to conduct analyses of the adequacy of all statutory reserves. In most of those cases, a locally qualified actuary must submit an analysis of the likelihood that the reserves make adequate provision for the associated contractual obligations and related expenses of the insurer. Local regulatory and actuarial standards for this analysis vary widely.

NAIC

The NAIC assists U.S. state insurance regulatory authorities in serving the public interest and achieving the insurance regulatory goals of its members, the state insurance regulatory officials. State insurance regulators may act independently or adopt regulations proposed by the NAIC. State insurance regulators and the NAIC regularly re-examine existing laws and regulations applicable to insurance companies and their products. Through the NAIC, state insurance regulators establish standards and best practices, conduct peer reviews, and coordinate their regulatory oversight. The NAIC provides standardized insurance industry accounting and reporting guidance through its Accounting Practices and Procedures Manual (the "Manual"), which states have largely adopted by regulation. However, statutory accounting principles continue to be established by individual state laws, regulations and permitted practices, which may differ from the Manual. Changes to the Manual or modifications by the various state insurance departments may impact the statutory capital and surplus of MetLife, Inc.'s U.S. insurance subsidiaries.

U.S. state insurance holding company laws and regulations are generally based on the Model Holding Company Act and Regulation. These insurance holding company laws and regulations vary from jurisdiction to jurisdiction, but generally require a controlled insurance company (i.e., insurers that are subsidiaries of insurance holding companies) to register with state regulatory authorities and to file with those authorities certain reports, including information concerning its capital structure, ownership, financial condition, certain intercompany transactions and general business operations.

The Model Holding Company Act and Regulation include a requirement that the ultimate controlling person of a U.S. insurer file an annual enterprise risk report with the lead state of the insurance holding company system identifying risks likely to have a material adverse effect upon the financial condition or liquidity of the insurer or its insurance holding company system as a whole. To date, all of the states where MetLife has domestic insurers have enacted a version of the revised Model Holding Company Act, including the enterprise risk reporting requirement. The Model Holding Company Act also authorizes state insurance commissioners to act as global group-wide supervisors for internationally active insurance groups (“IAIGs”), as well as other insurers that choose to opt in for the group-wide supervision. The Model Holding Company Act creates a selection process for the group-wide supervisor, extends confidentiality protection to communications with the group-wide supervisor, and outlines the duties of the group-wide supervisor. To date, a number of jurisdictions have adopted laws and regulations enhancing group-wide supervision.

The NAIC has concluded its “Solvency Modernization Initiative,” which was designed to review the U.S. financial regulatory system and all aspects of financial regulation affecting insurance companies. Though broad in scope, the NAIC’s Solvency Modernization Initiative focused on: (i) capital requirements; (ii) corporate governance and risk management; (iii) group supervision; (iv) statutory accounting and financial reporting; and (v) reinsurance. In furtherance of this initiative, the NAIC adopted the Corporate Governance Annual Disclosure Model Act and Regulation. The model act, which requires insurers to make an annual confidential filing regarding their corporate governance policies, has been adopted in nearly all states, including most of our insurance subsidiaries’ domiciliary states. In addition, the NAIC adopted the Risk Management and Own Risk and Solvency Assessment Model Act (“ORSA Model Act”), which has been enacted by our insurance subsidiaries’ domiciliary states. The ORSA Model Act requires that insurers maintain a risk management framework and conduct an internal own risk and solvency assessment of the insurer’s material risks in normal and stressed environments. The assessment must be documented in a confidential annual summary report, a copy of which must be made available to regulators as required or upon request. MetLife, Inc. has submitted on behalf of the enterprise an Own Risk and Solvency Assessment (“ORSA”) summary report to the NYDFS annually since this requirement became effective.

The NAIC has approved a valuation manual containing a principle-based approach to the calculation of life insurance reserves. Principle-based reserving is designed to better address reserving for products, including the current generation of products for which the current formulaic basis for reserve determination does not work effectively. The principle-based approach became effective on January 1, 2017 in the states where it had been adopted, to be followed by a three-year phase-in period (at the option of insurance companies on a product-by-product basis) for new business since it was enacted into law by the required number of state legislatures. Principle-based reserving has been adopted by all of the states where our insurance subsidiaries are domiciled. In New York, principle-based reserving became effective on January 1, 2020. In May 2019, the NYDFS formally adopted a regulation under which the NYDFS is authorized to deviate from the reserve standards and valuation methods set forth in the NAIC Valuation Manual (the “Valuation Manual”), if the NYDFS determines that an alternative requirement would be in the best interest of the policyholders of New York. The NYDFS is currently developing an amended version of the regulation that will contain deviations from the Valuation Manual formulaic floor that will be a requirement in New York.

In 2018, the NAIC adopted a new variable annuity framework that was designed to reduce the level and volatility of the non-economic aspect of reserve and risk-based capital (“RBC”) requirements for variable annuity products. The NAIC adopted technical language in 2019 to be included in various NAIC manuals and guidelines to implement the new framework. The new framework became effective on January 1, 2020. We have not determined the impact of this framework on our business, and we cannot predict if state insurance regulators will adopt standards different from the NAIC framework. The NYDFS is also pursuing a variable annuity initiative that may deviate from the NAIC work product. At this time, we cannot predict the changes the NYDFS will adopt in new variable annuity reserving standards or quantify the impact on MLIC.

In August 2017, the NAIC released a paper on macro-prudential initiatives, in which it proposed potential enhancements in supervisory practices related to liquidity, recovery and resolution, capital stress testing and counterparty exposure concentrations. This initiative is one of the NAIC’s top priorities since its purpose is to enhance risk identification efforts by building on the state-based regulation system. The NAIC adopted extensive changes to Statutory Annual Statement reporting, effective for year-end 2019, which it believes will improve liquidity risk monitoring. The NAIC is also continuing to develop a liquidity stress-testing framework for certain large U.S. life insurers and insurance groups (likely to be based on amounts of certain types of business written or material exposure to certain investment transactions, such as derivatives and securities lending) that will be used as a regulatory tool.

We currently utilize capital markets solutions to finance a portion of our statutory reserve requirements for several products, including, but not limited to, our level premium term life product subject to the NAIC Model Regulation Valuation of Life Insurance Policies (commonly referred to as Regulation XXX), and universal and variable life policies with secondary guarantees ("ULSG") subject to NAIC Actuarial Guideline 38 (commonly referred to as Guideline AXXX), as well as MLIC's closed block. Future capacity for these statutory reserve funding structures in the marketplace is not guaranteed. In 2014, the NAIC approved a new regulatory framework applicable to the use of captive insurers in connection with Regulation XXX and Guideline AXXX transactions. Among other things, the framework called for more disclosure of an insurer's use of captives in its statutory financial statements, and narrows the types of assets permitted to back statutory reserves that are required to support the insurer's future obligations. In 2014, the NAIC implemented the framework through an actuarial guideline ("AG 48"), which requires the actuary of the ceding insurer that opines on the insurer's reserves to issue a qualified opinion if the framework is not followed. The requirements of AG 48 became effective as of January 1, 2015 in all states without any further action necessary by state legislatures or insurance regulators to implement them, and apply prospectively to new policies issued and new reinsurance transactions entered into on or after January 1, 2015. In late 2016, the NAIC adopted an update to AG 48 and a model regulation that contains the same substantive requirements as the updated AG 48. The model regulation has only been adopted by a few states, including one of our insurance subsidiaries' domiciliary states.

We cannot predict the capital and reserve impacts or compliance costs, if any, that may result from the above initiatives, or what impact these initiatives will have on our business, financial condition or results of operations.

Surplus and Capital

Insurers are required to maintain their capital and surplus at or above minimum levels prescribed by the laws of their respective jurisdictions. Regulators generally have discretionary authority, in connection with the continued licensing of our insurance subsidiaries, to limit or prohibit an insurer's sales to policyholders if, in their judgment, such insurer has not maintained the minimum surplus or capital or that the further transaction of business will be hazardous to policyholders.

State insurance statutes also typically place restrictions and limitations on the amount of dividends or other distributions payable by insurance company subsidiaries to their parent companies, as well as on transactions between an insurer and its affiliates. Dividends in excess of prescribed limits and transactions above a specified size between an insurer and its affiliates require the approval of the insurance regulator in the insurer's state of domicile. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — MetLife, Inc. — Liquidity and Capital Sources — Dividends from Subsidiaries." See also "Dividend Restrictions" in Note 16 of the Notes to the Consolidated Financial Statements for further information regarding such limitations.

Our operations in non-U.S. jurisdictions may also be subject to restrictions on dividends and other distributions. For example, a portion of the annual earnings of our Japan operations may be repatriated each year, and may further be distributed to MetLife, Inc. as a dividend. We may determine not to repatriate profits from the Japan operations or to repatriate a reduced amount in order to maintain or improve the solvency of the Japan operations or for other reasons. In addition, the Financial Services Agency ("FSA") may limit or not permit profit repatriations or other transfers of funds to the U.S. if such transfers would be detrimental to the solvency or financial strength of our Japan operations or for other reasons.

For developments that could affect our ratio of free cash flow to adjusted earnings results, and thus our surplus and capital, see "Risk Factors," as amended or supplemented in our subsequently filed Quarterly Reports on Form 10-Q.

Risk-Based Capital

Most of our U.S. insurance subsidiaries are subject to RBC requirements that were developed by the NAIC and adopted by their respective states of domicile. RBC is based on a formula calculated by applying factors to various asset, premium, claim, expense and statutory reserve items. The formula takes into account the risk characteristics of the insurer and is calculated on an annual basis. The major categories of risk involved are asset risk, insurance risk, interest rate risk, market risk and business risk. The formula is used as an early warning regulatory tool to identify possible inadequately capitalized insurers for purposes of initiating regulatory action, and not as a means to rank insurers generally. State insurance laws provide insurance regulators the authority to require various actions by, or take various actions against, insurers whose total adjusted capital does not meet or exceed certain RBC levels. As of the date of the most recent annual statutory financial statements filed with insurance regulators, the total adjusted capital of each of our subsidiaries subject to these requirements was in excess of each of those RBC levels. See "Statutory Equity and Income" in Note 16 of the Notes to the Consolidated Financial Statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Capital — Statutory Capital and Dividends."

The NYDFS issues annual letters on Special Considerations ("SCL") to New York-licensed insurance companies, including MLIC, that affects year-end asset adequacy testing. An SCL could require assumptions that require us to increase or release certain asset adequacy reserves, which could materially impact our statutory capital and surplus. We did not change our statutory capital and surplus as a result of the SCLs we received for the years ended December 31, 2019 and 2018. See "Statutory Equity and Income" in Note 16 of the Notes to the Consolidated Financial Statements.

In December 2017, President Trump signed into law H.R.1, commonly referred to as the Tax Cuts and Jobs Act of 2017 ("U.S. Tax Reform"). Following the reduction in the federal corporate income tax rate pursuant to U.S. Tax Reform, the NAIC adopted revisions to certain factors used to calculate Life RBC, which is the denominator of the RBC ratio. These revisions to the NAIC's Life RBC calculation have resulted in increases in RBC charges and reductions in the RBC ratios of our insurance subsidiaries. The NAIC is also studying RBC revisions for bonds and longevity risk, but it is premature to project the impact of any potential regulatory changes resulting from such proposals.

The NAIC is continuing to develop a group capital calculation tool using an RBC aggregation methodology for all entities within the insurance holding company system, including non-U.S. entities. The goal is to provide U.S. regulators with a method to aggregate the available capital and the minimum capital of each entity in a group in a way that applies to all groups regardless of their structure. Field testing was conducted in 2019. The NAIC has stated that the calculation will be a regulatory tool and will not constitute a requirement or standard. Nonetheless, any new group capital calculation methodology may incorporate existing RBC concepts. The NAIC expects to adopt the final group capital calculation tool in 2020. It is not possible to predict what impact any such regulatory tool may have on our business.

While not required by or filed with insurance regulators, we calculate internally defined combined RBC ratios, which are determined by dividing the sum of total adjusted capital for MetLife, Inc.'s principal U.S. insurance subsidiaries, excluding American Life Insurance Company ("American Life"), by the sum of company action level RBC for such subsidiaries. We calculate such combined RBC ratios based on NAIC capital and reserving requirements ("NAIC-Based Combined RBC Ratios"). The NAIC-Based Combined RBC Ratio was in excess of 380% at both December 31, 2019 and 2018. We are not aware of any upcoming NAIC adoptions or state insurance department regulation changes that would have a material impact on the NAIC-Based Combined RBC Ratios of our U.S. insurance subsidiaries.

Solvency Regimes

Our insurance business throughout the EEA and the United Kingdom (the "U.K.") is subject to the Solvency II Directive (2009/138/EC) and its implementing rules, which cover the capital adequacy, risk management and regulatory reporting for insurers and reinsurers. Solvency II codifies and harmonizes European Union ("EU") and U.K. insurance regulation. Capital requirements are forward-looking and based on the risk profile of each individual insurance company in order to promote comparability, transparency and competitiveness. In line with the requirements, MetLife entities calculate and report their solvency capital requirement using a standard formula prescribed by the EU Directive and further regulation by EIOPA.

Mexico adopted a reform of its Insurance Law in February 2013. In accordance with this reform, a Solvency II-type regulatory framework became effective on January 1, 2016, which instituted changes to reserve and capital requirements and corporate governance and fostered greater transparency. In line with the requirements of the local Solvency II, insurance companies calculate and report their capital requirement using a standard formula designed by the local regulators ("CNSF"). In addition, as required, certain MetLife entities must submit annual ORSA reports to the CNSF on an ongoing basis.

In Chile, the law implementing Solvency II-like regulation continues in the studies stage. The implementation date for the new solvency regime has not yet been set; however, it could be in force within four years after the final regulation is published. The Chilean insurance regulator had already issued two resolutions in 2011, one for governance and the other for risk management and control framework requirements. MetLife Chile has already implemented governance changes and risk policies to comply with these resolutions. On March 31, 2016, the local regulator issued a final regulation that requires insurance companies to implement a risk appetite framework and produce an ORSA. The second such report was submitted to the local regulator in June 2018. The third ORSA report was submitted in June 2019.

In July 2015, the Superintendence of Private Insurance, the Brazilian insurance regulator ("SUSEP"), issued a regulation establishing (i) a framework for minimum capital requirements based on risk and (ii) criteria for investment activities in insurance companies. In November 2015, SUSEP issued an additional regulation requiring insurance companies operating in Brazil to adopt a formal risk management function by the end of 2016 and to implement a formal enterprise risk management framework in 2017. In December 2016, MetLife Brazil formalized the designation of a local risk manager in Brazil in compliance with local regulation and in 2017 completed the implementation of governance structures and risk management framework components in accordance with local regulatory requirements.

Japanese law provides that insurers in Japan must maintain specified solvency standards for the protection of policyholders and to support the financial strength of licensed insurers. Most Japanese life insurers maintain a solvency margin ratio well in excess of the legally mandated minimum. In addition, Japan is expected to introduce an economic value-based solvency regime within the next few years.

In China, the business of our joint venture (as well as the industry) has been implementing China Risk Oriented Solvency System ("C-ROSS"), a risk-based solvency regime, which became effective on January 1, 2016. Like Solvency II, C-ROSS focuses on risk management and has three pillars (strengthen quantitative capital requirements, enhance qualitative supervision and establish a governance and market discipline process). In September 2017, the regulator announced a three-year plan aimed at improving C-ROSS rules in line with the changing market environment.

In Korea, the Financial Supervisory Service is planning to implement by 2022 a new solvency system reflecting the International Capital Standard but incorporating certain product portfolio and other features specific to the Korean market. Mark-to-market valuation is expected to be a key feature of the new system, which would generally increase capital requirements.

IAIS

The International Association of Insurance Supervisors ("IAIS"), an association of insurance supervisors and regulators and a member of the Financial Stability Board ("FSB"), an international entity established to coordinate, develop and promote regulatory, supervisory and other financial sector policies in the interest of financial stability, is participating in the FSB's initiative to identify and manage systemic risk globally. From 2013 to 2016, the FSB annually designated nine insurers, including MetLife, Inc. as globally systemically important insurers ("G-SIIs") using an assessment methodology developed and implemented by the IAIS. In November 2019, the IAIS adopted a comprehensive set of reforms related to the cross-border supervision of IAIGs. The adopted reforms include the holistic framework for the assessment and mitigation of systemic risk in the global insurance sector (the "Holistic Framework"), which monitors the build-up of vulnerabilities at jurisdictional and global levels. The goal is to address any such risk through the application of enhanced supervisory measures based on existing insurance core principles and the common framework for supervision of IAIGs. As the Holistic Framework is expected to produce an improved system for assessing and mitigating systemic risk in the insurance sector, the FSB, in consultation with the IAIS, suspended G-SII identification beginning January 1, 2020. The FSB will review in 2022 whether it should discontinue or re-establish the G-SII designation system based on the implementation results of the Holistic Framework.

All IAIS proposals would need to be implemented at the consolidated group level by legislation or regulation in each applicable jurisdiction. As MetLife, Inc. is no longer a U.S. non-bank SIFI, the impact on MetLife, Inc. of such global proposals is uncertain.

New York Insurance Regulation 210

Insurance Regulation 210 went into effect in New York on March 19, 2018. Insurance Regulation 210 establishes standards for the determination and any readjustment of non-guaranteed elements ("NGEs") that may vary at the insurer's discretion for life insurance policies and annuity contracts delivered or issued for delivery in New York. Examples of NGEs include cost of insurance for universal life insurance policies, as well as interest crediting rates for annuities and universal life insurance policies. The regulation requires insurers to notify policyholders at least 60 days in advance of any change in NGEs that is adverse to policyholders and, with respect to life insurance, to notify the NYDFS at least 120 days prior to any such changes. Additionally, the regulation requires insurers to file annually with NYDFS to inform the NYDFS of any changes adverse to policyholders made in the prior year. The regulation generally prohibits insurers from increasing profit margins for in-force policies or adjusting NGEs in order to recoup past losses.

Cybersecurity and Privacy Regulation

Pursuant to U.S. federal and state laws, and laws of other jurisdictions in which we operate, various government agencies have established rules protecting the privacy and security of personal information. In addition, most U.S. states and a number of jurisdictions outside the United States have enacted laws, which vary significantly from jurisdiction to jurisdiction, to safeguard the privacy and security of personal information. The area of cybersecurity has also come under increased scrutiny by insurance and other regulators.

New York's cybersecurity regulation for financial services institutions, including banking and insurance entities under its jurisdiction, requires these entities to establish and maintain a cybersecurity program designed to protect consumers' private data. The regulation specifically provides for: (i) controls relating to the governance framework for a cybersecurity program; (ii) risk-based minimum standards for technology systems for data protection; (iii) minimum standards for cyber breach responses, including notice to NYDFS of material events; and (iv) identification and documentation of material deficiencies, remediation plans and annual certifications of regulatory compliance to the NYDFS.

In addition, on October 24, 2017, the NAIC adopted the Insurance Data Security Model Law (the "Cybersecurity Model Law"), which establishes standards for data security and for the investigation of and notification of insurance commissioners of cybersecurity events involving unauthorized access to, or the misuse of, certain nonpublic information. The Cybersecurity Model Law has only been adopted by a few states, including one of our insurance subsidiaries' domiciliary states, and it is not an NAIC accreditation standard. As adopted by these states, and if adopted as state legislation elsewhere, the Cybersecurity Model Law would impose significant new regulatory burdens intended to protect the confidentiality, integrity and availability of information systems.

The General Data Protection Regulation ("GDPR"), which is intended to establish uniform data privacy laws across the EU, became effective for all EU member states, including the U.K., on May 25, 2018. GDPR is extraterritorial in that it applies to EU entities, as well as entities not established in the EU that offer goods or services to data subjects in the EU or the U.K. or monitor consumer behavior that takes place in the EU or the U.K. Fines may be imposed for non-compliance with the requirements of the GDPR.

The California Consumer Privacy Act of 2018 (the "CCPA") grants all California residents the right to know what information a business has collected from them and the sourcing and sharing of that information, as well as a right to have a business delete their personal information (with some exceptions). Its definition of "personal information" is more expansive than those found in other privacy laws applicable to us in the United States. Failure to comply with the CCPA could result in regulatory fines, and the law grants a private right of action for any unauthorized disclosure of personal information as a result of failure to maintain reasonable security procedures. We expect that exceptions to the CCPA will apply to a significant portion of our business. The CCPA became effective on January 1, 2020, but California's Attorney General cannot bring an enforcement action until July 1, 2020.

ERISA, Fiduciary Considerations, and Other Pension and Retirement Regulation

We provide products and services to certain employee benefit plans that are subject to ERISA and the Internal Revenue Code of 1986, as amended (the "Code"). As such, our activities are subject to the restrictions imposed by ERISA and the Code, including the requirement under ERISA that fiduciaries must perform their duties solely in the interests of ERISA plan participants and beneficiaries, and that fiduciaries may not cause a covered plan to engage in certain prohibited transactions. The applicable provisions of ERISA and the Code are subject to enforcement by the U.S. Department of Labor ("DOL"), the Internal Revenue Service ("IRS") and the Pension Benefit Guaranty Corporation.

The prohibited transaction rules of ERISA and the Code generally restrict the provision of investment advice to ERISA plans and participants and Individual Retirement Accounts ("IRAs") if the investment recommendation results in fees paid to an individual advisor, the firm that employs the advisor or their affiliates that vary according to the investment recommendation chosen, unless an exemption or exception is available. Similarly, without an exemption or exception, fiduciary advisors are prohibited from receiving compensation from third parties in connection with their advice. ERISA also affects certain of our in-force insurance policies and annuity contracts, as well as insurance policies and annuity contracts we may sell in the future.

The U.S. DOL issued regulations that largely were applicable in 2017 that expanded the definition of "investment advice" and required an advisor to meet an impartial or "best interests" standard ("BICE"), but the regulations were formally vacated by the U.S. Court of Appeals for the Fifth Circuit in 2018. The Court of Appeals decision also vacated certain DOL amendments to prohibited transaction exemptions. The DOL has announced that it plans to issue revised fiduciary investment advice regulations. At this time, we cannot predict when those regulations will be issued, what form those regulations may take or their potential impact on us.

In June 2019, the SEC adopted rules and interpretations addressing the standards of conduct applicable to broker-dealers and investment advisers and their associated persons, including Regulation Best Interest. The conduct standards apply when providing brokerage and advisory products and services to benefit plans governed by ERISA and IRAs, as well as non-benefit plan retail clients. Under the SEC rules, broker-dealers are not deemed to be fiduciaries to their clients by virtue of making recommendations but must act in the best interest of individual investor retail clients when making a recommendation. The SEC's best interest standard is not intended to track the DOL's former BICE standard. Unlike the DOL rule that was vacated in 2018, there is no private right of action for violations under Regulation Best Interest. Two pending lawsuits, one by several states and D.C. and the other by private advisory firms, were filed in September 2019, seeking to overturn Regulation Best Interest. The DOL is expected to adopt revised regulations that will be consistent with the SEC's rules, including the new best interest standard. In addition, in December 2019, the NAIC approved revisions to the Suitability in Annuity Transactions Model Regulation that add a "best interest" standard for the sale of annuities that is less than a fiduciary standard, but more than a suitability standard. The revised regulations now have to be adopted by state legislatures.

State regulators and legislatures in Nevada, New Jersey, Maryland, Massachusetts and New York have proposed measures that would make broker-dealers, sales agents, and investment advisers and their representatives subject to a fiduciary duty when providing products and services to customers, including pension plans and IRAs. In addition, on July 17, 2018, the NYDFS issued the final version of revised Insurance Regulation 187, which not only incorporates the "best interest" standard but also expands the scope of the regulation beyond annuity transactions to include sales of life insurance policies to consumers. The revised Insurance Regulation 187 took effect on August 1, 2019 for annuity products and on February 1, 2020 for life insurance products. The SEC did not indicate an intent to pre-empt state regulation in this area, and some of the state proposals and adopted regulations would allow for a private right of action. As a result of these developments, it is possible that it may become more costly to provide our products and services in the states subject to the new rules.

On December 14, 2017, the DOL released its semiannual regulatory agenda, which proposed revisions to Form 5500, the form used for ERISA annual reporting, proposed jointly with the IRS and the Pension Benefit Guaranty Corporation in 2016. The revisions affect employee pension and welfare benefit plans, including our ERISA plans, and require audits of information, self-directed brokerage account disclosure and additional extensive disclosure. We cannot predict the effect these proposals will have on our business, if enacted, or what other proposals may be made, what legislation may be introduced or enacted, or what impact any such legislation may have on our results of operations and financial condition.

In addition, the DOL has issued a number of regulations that increase the level of disclosure that must be provided to plan sponsors and participants. The participant disclosure regulations and the regulations that require service providers to disclose fee and other information to plan sponsors took effect in 2012. In *John Hancock Mutual Life Insurance Company v. Harris Trust and Savings Bank* (1993), the U.S. Supreme Court held that certain assets in excess of amounts necessary to satisfy guaranteed obligations under a participating group annuity general account contract are "plan assets." Therefore, these assets are subject to certain fiduciary obligations under ERISA, which require fiduciaries to perform their duties solely in the interest of ERISA plan participants and beneficiaries. On January 5, 2000, the Secretary of Labor issued final regulations indicating, in cases where an insurer has issued a policy backed by the insurer's general account to or for an employee benefit plan, the extent to which assets of the insurer constitute plan assets for purposes of ERISA and the Code. The regulations apply only with respect to a policy issued by an insurer on or before December 31, 1998 ("Transition Policy"). No person will generally be liable under ERISA or the Code for conduct occurring prior to July 5, 2001, where the basis of a claim is that insurance company general account assets constitute plan assets. An insurer issuing a new policy that is backed by its general account and is issued to or for an employee benefit plan after December 31, 1998 will generally be subject to fiduciary obligations under ERISA, unless the policy is a guaranteed benefit policy.

The regulations indicate the requirements that must be met so that assets supporting a Transition Policy will not be considered plan assets for purposes of ERISA and the Code. These requirements include detailed disclosures to be made to the employee benefits plan and the requirement that the insurer must permit the policyholder to terminate the policy on 90 days' notice and receive without penalty, at the policyholder's option, either (i) the unallocated accumulated fund balance (which may be subject to market value adjustment) or (ii) a book value payment of such amount in annual installments with interest. We have taken and continue to take steps designed to ensure compliance with these regulations.

In January 2019, Chilean President Sebastian Piñera introduced a set of additional amendments to the pension reform bill currently being reviewed by congress. At this time, the proposed amendments would not impact the 10% mandatory employee contributions managed by MetLife's pension administrator in Chile. We are not able to predict with certainty the timing of adoption or the terms of the final text of the bill, and cannot currently identify all of the risks or opportunities to our business in Chile.

On January 1, 2018, new regulations went into effect in Korea that reduced commission on savings retirement products. These regulations have negatively impacted sales of savings retirement products across the Korean market, including for us.

On December 20, 2019, President Trump signed into law the Setting Every Community Up for Retirement Enhancement Act of 2019 (the "SECURE Act"). The SECURE Act contains a number of provisions that affect the administration and operation of ERISA plans and IRAs, including provisions that encourage additional retirement savings and lifetime income options, promote the adoption of retirement plans by small employers, provide lifetime income portability, and accelerate the distribution of retirement benefits of deceased retirees. Many provisions of the SECURE Act became effective for plan years beginning after December 31, 2019. At this time, we cannot predict the impact the SECURE Act will have on our business, financial condition or results of operations.

Consumer Protection Laws

Numerous federal and state laws affect MetLife, Inc.'s earnings and activities, including federal and state consumer protection laws, and MetLife, Inc. may be impacted by consumer protection laws in non-U.S. jurisdictions as well. As part of Dodd-Frank, Congress established the Consumer Financial Protection Bureau ("CFPB") to supervise and regulate institutions that provide certain financial products and services to consumers. Although the consumer financial services subject to the CFPB's jurisdiction generally exclude insurance business of the kind in which we engage, the CFPB does have authority to regulate non-insurance consumer services we provide.

In August 2013, MetLife Bank, National Association ("MetLife Bank") merged with and into MetLife Home Loans LLC ("MLHL"), its former subsidiary, with MLHL as the surviving, non-bank entity. The sole purpose of MLHL is to wind-down the limited remaining activities and fulfill remaining obligations and duties of MetLife Bank, some of which subject MLHL to certain federal consumer financial protection laws and certain state laws.

Investments Regulation

Each of our U.S. insurance subsidiaries is subject to state laws and regulations that limit the amount of investments that an insurer may have in certain asset categories, such as below investment grade fixed income securities, real estate equity, other equity investments, and derivatives, and require diversification of investment portfolios. Failure to comply with these laws and regulations would cause investments exceeding regulatory limitations to be treated as non-admitted assets for purposes of measuring surplus and, in some instances, would require divestiture of such non-qualifying investments. We believe that the investments made by each of MetLife, Inc.'s U.S. insurance subsidiaries complied, in all material respects, with such regulations at December 31, 2019. In addition, many of our non-U.S. insurance subsidiaries are subject to local investment laws and regulations.

As a global insurance company, we continue to be impacted by the changing global financial and economic environment, as well as the monetary policies of central banks around the world. Actions resulting from these policies, including with respect to the level of interest rates, may have an impact on the pricing levels of risk-bearing investments, and may impact our business operations, the income we earn on our investments or the level of product sales. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Investments — Current Environment."

Derivatives Regulation

Dodd-Frank includes a framework of regulation of the over-the-counter ("OTC") derivatives markets which requires clearing of certain types of transactions currently traded OTC and which imposes additional costs, including reporting and margin requirements. Our costs of risk mitigation are increasing under Dodd-Frank. For example, Dodd-Frank imposes requirements to pledge variation and/or initial margin (i) for "OTC-cleared" transactions (OTC derivatives that are cleared and settled through central clearing counterparties), and (ii) for "OTC-bilateral" transactions (OTC derivatives that are bilateral contracts between two counterparties); the margin requirements for OTC-cleared transactions and the variation margin requirements for OTC-bilateral derivatives are already in effect, while the initial margin requirements for OTC-bilateral transactions will likely become applicable to us in September 2020. These increased margin requirements, combined with increased capital charges for our counterparties and central clearinghouses with respect to non-cash collateral, have increased our required holdings of, and are likely to continue to require increased holdings of cash and highly liquid securities with lower yields causing a reduction in income and less favorable pricing for OTC-cleared and OTC-bilateral transactions. Centralized clearing of certain OTC derivatives exposes us to the risk of a default by a clearing member or clearinghouse with respect to our cleared derivative transactions. We use derivatives to mitigate a wide range of risks in connection with our businesses, including the impact of increased benefit exposures from certain of our annuity products that offer guaranteed benefits. We have always been subject to the risk that hedging and other management procedures might prove ineffective in reducing the risks to which insurance policies expose us or that unanticipated policyholder behavior or mortality, combined with adverse market events, could produce economic losses beyond the scope of the risk management techniques employed. Any such losses could be increased by higher costs of writing derivatives (including customized derivatives) and the reduced availability of customized derivatives that might result from the implementation of Dodd-Frank and comparable international derivatives regulations.

Dodd-Frank also expanded the definition of "swap" and mandated the SEC and U.S. Commodity Futures Trading Commission ("CFTC") to study whether "stable value contracts" should be treated as swaps. Pursuant to the new definition and the SEC's and CFTC's interpretive regulations, products offered by our insurance subsidiaries other than stable value contracts might also be treated as swaps, even though we believe otherwise. Should such products become regulated as swaps, we cannot predict how the rules would be applied to them or the effect on such products' profitability or attractiveness to our clients. Federal banking rules that apply to certain qualified financial contracts, including many derivatives contracts, securities lending agreements and repurchase agreements, with banking institutions and certain of their affiliates generally require the banking institutions and their applicable affiliates to include contractual provisions in their qualified financial contracts that limit or delay certain rights of their counterparties including counterparties' default rights (such as the right to terminate the contracts or foreclose on collateral) and restrictions on assignments and transfers of credit enhancements (such as guarantees) arising in connection with the banking institution or an applicable affiliate becoming subject to a bankruptcy, insolvency, resolution or similar proceeding. These rules could limit our recovery in the event of a default, limit our ability to close-out transactions upon the bankruptcy of an affiliate of our counterparty and increase our counterparty risk.

The amount of collateral we are required to pledge and the payments we are required to make under our derivatives transactions are expected to increase as a result of the requirement to pledge initial margin for OTC-cleared transactions and for OTC-bilateral transactions entered into after the phase-in period, which will likely be applicable to us in September 2020 as a result of adoption by the Office of the Comptroller of the Currency, the Federal Reserve Board, the FDIC, the Farm Credit Administration, the Federal Housing Finance Agency, and the CFTC of final margin requirements for non-centrally cleared derivatives.

In December 2019, the SEC finalized and adopted the final set of rules related to security-based swaps, which triggers the compliance date for security-based swap entities registration and compliance with previously adopted rules regarding margin, capital, segregation, recordkeeping, cross-border regulation, and reporting and business conduct for security-based swaps. The rules will become effective on the later of March 1, 2020 or 60 days after publication in the Federal Register and the compliance date for registration of security-based swap entities will be 18 months after such effective date. We are evaluating the potential effect these rules might have on our business.

Securities, Broker-Dealer and Investment Adviser Regulation

U.S. federal and state securities laws and regulations apply to insurance products that are also "securities," including variable annuity contracts and variable life insurance policies, as well as certain fixed interest rate or index-linked contracts with features that require them to be registered as securities (such as "registered fixed contracts") or sold through private placement issuances. As a result, some of MetLife, Inc.'s subsidiaries and their activities in offering and selling variable insurance contracts and policies are subject to extensive regulation under these securities laws.

Federal and state securities laws and regulations generally grant regulatory agencies broad rulemaking and enforcement powers, including the power to adopt new rules impacting new or existing products, regulate the issuance, sale and distribution of our products and limit or restrict the conduct of business for failure to comply with such laws and regulations. In some non-U.S. jurisdictions, some of our insurance products are considered "securities" under local law, and we may be subject to local securities regulations and oversight by local securities regulators.

Some of our subsidiaries and their activities in offering and selling variable insurance products and certain fixed interest rate or index-linked contracts are subject to extensive regulation under the federal securities laws and regulations administered by the SEC. These subsidiaries issue variable annuity contracts and variable life insurance policies through separate accounts that are registered with the SEC as investment companies under the Investment Company Act of 1940 (the "Investment Company Act") or are exempt from registration under the Investment Company Act. Such separate accounts are generally divided into sub-accounts, each of which invests in an underlying mutual fund which is itself a registered investment company under the Investment Company Act. In addition, the variable annuity contracts and variable life insurance policies associated with these registered separate accounts are registered with the SEC under the Securities Act of 1933 (the "Securities Act") or are exempt from registration under the Securities Act. Some of our subsidiaries also issue fixed interest rate or index-linked contracts with features that require them to be registered as securities under the Securities Act.

Some of our subsidiaries are registered with the SEC as broker-dealers under the Securities Exchange Act of 1934 (the "Exchange Act") and are members of, and subject to regulation by, FINRA. Certain variable contract separate accounts sponsored by our subsidiaries are exempt from registration, but may be subject to other provisions of the federal securities laws. The SEC, CFTC and FINRA from time to time propose rules and regulations that impact products deemed to be securities. The future impact of any adopted rules and regulations on the way we conduct our business and the products we sell is unclear.

Some of our subsidiaries are registered as investment advisers with the SEC under the Investment Advisers Act of 1940, as amended, and are also registered as investment advisers in various states and non-U.S. jurisdictions, as applicable. We may also be subject to similar laws and regulations in non-U.S. jurisdictions where we provide investment advisory services or conduct other activities.

In June 2019, the SEC adopted rules and interpretations addressing the standards of conduct applicable to broker-dealers and investment advisers and their associated persons, including Regulation Best Interest, which are primarily focused on offerings of products and services to retail customers. As a result of the new rules, beginning June 30, 2020, broker-dealers recommending our variable products to retail customers will be required to comply with a "best interest" standard, which the SEC did not define but did confirm would be higher than the current suitability standard but not rise to the level of being a fiduciary, and provide disclosures about their standard of conduct and conflicts of interest, including a new standardized client relationship summary disclosure ("Form CRS"). Investment advisers to retail clients will also be required to file new Form CRS with the SEC and deliver copies of the Form CRS to their retail clients. As noted above, the SEC rules do not include a private right of action. Two pending lawsuits, one by several states and D.C. and the other by private advisory firms, were filed in September 2019, seeking to overturn Regulation Best Interest. In addition, in December 2019, the NAIC approved revisions to the Suitability in Annuity Transactions Model Regulation that add a "best interest" standard for the sale of annuities that is less than a fiduciary standard, but more than a suitability standard. The revised regulation now has to be adopted by state legislatures. We are monitoring these developments and cannot at this time predict the effect they might have on our business.

Federal and state securities regulatory authorities and FINRA from time to time make inquiries and conduct examinations regarding compliance by MetLife, Inc. and its subsidiaries with securities and other laws and regulations. We cooperate with such inquiries and examinations and take corrective action when warranted.

Environmental Laws and Regulations

As an owner and operator of real property in many jurisdictions, we are subject to extensive environmental laws and regulations in such jurisdictions. Inherent in such ownership and operation is also the risk that there may be environmental liabilities and costs in connection with any required remediation of such properties. In addition, we hold equity interests in companies that could potentially be subject to environmental liabilities. We routinely have environmental assessments performed with respect to real estate being acquired for investment and real property to be acquired through foreclosure. Unexpected environmental liabilities may arise. However, based on information currently available to us, we believe that any costs associated with compliance with environmental laws and regulations or any remediation of such properties will not have a material adverse effect on our business, results of operations or financial condition.

Unclaimed Property

We are subject to the laws and regulations of states and other jurisdictions concerning identification, reporting and escheatment of unclaimed or abandoned funds, and are subject to audit and examination for compliance with these requirements. See "—Insurance Regulation — Insurance Regulatory Examinations and Other Activities" for discussion of the regulatory settlement agreement relating to unclaimed proceeds. See also "Controls and Procedures" and Note 21 of the Notes to the Consolidated Financial Statements.

Brighthouse Separation Tax Treatment

Prior to the spin-off distribution of Brighthouse Financial, Inc. common stock in 2017, we received a private letter ruling from the IRS regarding certain significant issues under the Code, as well as an opinion from tax counsel that the distribution qualified for non-recognition of gain or loss to us and our shareholders pursuant to Sections 355 and 361 of the Code, except to the extent of cash received in lieu of fractional shares, each subject to the accuracy of and compliance with certain representations, assumptions and covenants therein.

Notwithstanding the receipt of the private letter ruling and the tax opinion, the IRS could determine that the distribution should be treated as a taxable transaction, for example, if it determines that any of the representations, assumptions or covenants on which the private letter ruling is based are untrue or have been violated. Similarly, the IRS could determine that our disposal of FVO Brighthouse Common Stock (as defined below) in the debt-for-equity exchange should be treated as a taxable transaction to MetLife, Inc. Furthermore, as part of the IRS's policy, the IRS did not determine whether the distribution or the debt-for-equity exchange satisfies certain conditions that are necessary to qualify for non-recognition treatment. Rather, the private letter ruling is based on representations by us and Brighthouse Financial, Inc. (together with its subsidiaries, "Brighthouse") that these conditions have been satisfied. The tax opinion addressed the satisfaction of these conditions. The tax opinion is not binding on the IRS or the courts, and the IRS or a court may take a contrary position. In addition, the tax counsel relied on certain representations and covenants delivered by us and Brighthouse.

If the IRS ultimately determines that the distribution is taxable, the distribution could be treated as a taxable dividend or capital gain to MetLife shareholders who received shares of Brighthouse Financial, Inc. common stock in the distribution for U.S. federal income tax purposes, and such shareholders could incur significant U.S. federal income tax liabilities. In addition, if the IRS ultimately determines that the distribution is taxable, we and Brighthouse could incur significant U.S. federal income tax liabilities, and either we or Brighthouse could have an indemnification obligation to the other, depending on the circumstances.

Even if the spin-off distribution otherwise qualifies for non-recognition of gain or loss under Section 355 of the Code, it may be taxable to us, but not our shareholders, under Section 355(e) of the Code if 50% or more (by vote or value) of our common stock or Brighthouse Financial, Inc.'s common stock is acquired as part of a plan or series of related transactions that include the distribution. Under the tax separation agreement with Brighthouse, we are restricted from certain activities and have indemnity obligations which may limit our ability to pursue strategic transactions or engage in new business or other transactions that may maximize the value of our business, and might discourage or delay a strategic transaction that our shareholders may consider favorable.

Cross-Border Trade

On January 31, 2020, the U.K. ceased to be a member of the EU and entered into a transition period expected to end on December 31, 2020. During the transition period, the relationship between the U.K. and the EU will remain primarily as it was prior to January 31, 2020. The U.K. and EU will use this period to negotiate the structure of the future relationship between the U.K. and EU after December 31, 2020. Our U.K. business model utilizes certain rights to operate cross-border insurance and investment operations, which may be modified or eliminated as a result of the U.K. exiting the EU. MetLife expects to maintain its existing operating model, including as an inbound EEA-insurer under the U.K.'s Temporary Permissions Regime, which is due to last for at least three years and will permit MetLife to carry on its insurance business in the U.K. during that period. Operating expenses within our businesses could increase as a result of such changes.

One of the Trump Administration's priorities has been renegotiating certain international trade agreements, including the North American Free Trade Agreement ("NAFTA") with Canada and Mexico. On September 30, 2018, the United States, Canada and Mexico agreed to the framework for a new international trade agreement, known as the United States-Mexico-Canada Agreement ("USMCA"), which would replace NAFTA. Mexico and the United States have ratified the USMCA with Canada expected to follow suit. The Trump Administration has also made it a priority to renegotiate the terms of bilateral trade between the United States and China. Governments in both countries have erected tariffs on the imports of various goods during the trade negotiation period. On January 15, 2020, President Trump and the government of China signed a "Phase One" deal, which reduced bilateral tensions and provided partial tariff relief. While imposed tariffs do not affect us directly, the economic impact of continued uncertainty could impact the growth of the insurance market in China.

Fiscal Measures

The administration of President López Obrador in Mexico is implementing an austerity plan which, among other measures, has eliminated benefits such as major medical insurance and contributions to additional savings benefit insurance for Mexican federal government personnel and public officials. Mexican state governments or other government institutions may introduce similar austerity policies as well. MetLife is the largest provider of benefits to Mexican federal government personnel and public officials, and such austerity plans may have an adverse effect on our business.

If the U.S. Congress does not approve annual appropriations or otherwise extend appropriations by continuing resolution, many federal government agencies must discontinue most non-essential, discretionary functions, known as a "partial government shutdown." Most recently, the U.S. government operated under a partial shutdown from December 22, 2018 to January 25, 2019. During a partial government shutdown, financial markets, including the government bond market, continue to function. If the SEC is shut down, although certain SEC functions continue, the SEC may not process new or pending registration statements, qualifications of new or pending offering statements or applications for exemptive relief, which could disrupt or delay new public bond issuances. The partial shutdown of certain other federal agencies could delay or otherwise impact certain transactions or projects. An extended partial government shutdown could also negatively impact capital markets and economic conditions generally.

Competition

The life insurance industry remains highly competitive. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Industry Trends — Competitive Pressures." We believe that the competition we face is based on a number of factors, including service, product features, scale, price, financial strength, claims-paying ratings, credit ratings, e-business capabilities and name recognition. We compete globally with a large number of other insurance companies, as well as non-insurance financial services companies, such as banks, broker-dealers and asset managers, for individual consumers, employer and other group customers, as well as agents and other distributors of insurance and investment products. Some of these companies offer a broader array of products, have more competitive pricing or, with respect to other insurance companies, have higher claims paying ability ratings. In the United States and Japan, we compete with a large number of domestic and foreign-owned life insurance companies, many of which offer products in categories on which we focus. Elsewhere, we compete with the foreign insurance operations of large U.S. insurers and with global insurance groups and local companies. Many of our group insurance products are underwritten annually and, accordingly, there is a risk that group purchasers may be able to obtain more favorable terms from competitors rather than renewing coverage with us.

We believe that the continued volatility of the financial markets and its impact on the capital position of many competitors will continue to strain the competitive environment. Although the U.S. regulatory environment has improved at the federal level, the life insurance industry continues to face challenges globally and, within the U.S., at the state level. In the current environment, we believe that financial strength, technological efficiency and organizational agility are the most significant differentiators and that we are building a company that is well positioned to succeed in any environment. For example, the Company primarily distributes its products through a variety of third-party distribution channels, including banks and broker-dealers. These distribution partners are currently placing greater emphasis on the financial strength of the company whose products they sell. An increase in bank and broker-dealer consolidation activity could increase competition for access to distributors. The effects of financial market volatility may also lead to consolidation in the life insurance industry.

Competition for employees in our industry is intense, and we need to be able to attract and retain highly skilled people with knowledge of our business and industry experience to support our business. In selected global markets, we continue to undertake several initiatives to grow our career agency forces, while continuing to enhance the efficiency and production of our sales representatives. These initiatives may not succeed in attracting and retaining productive agents. See "— Segments and Corporate & Other" for information on sales distribution.

Numerous aspects of our business are subject to regulation. Legislative and other changes affecting the regulatory environment can affect our competitive position within the life insurance industry and within the broader financial services industry. See "— Regulation."

Employees

At October 1, 2019, we had approximately 49,000 employees, calculated consistent with Regulation S-K Item 402(u) without exempting any employees under Regulation S-K Item 402(u)(4). We believe that our relations with our employees are satisfactory. We invest in our employees by continuing to create learning and development opportunities, promote inclusion, support work-life balance, and enhance ownership mindset. Fostering a culture of innovation and employee learning is fundamental to how we compete.

Information About Our Executive Officers

Set forth below is information regarding the executive officers of MetLife, Inc.:

Name	Age	Position with MetLife and Business Experience
Michel A. Khalaf	55	• President, Chief Executive Officer and Director of MetLife, Inc. (May 2019 – present)
		• President, U.S. Business, of MetLife, Inc. (July 2017 – April 2019)
		• President, EMEA, of MetLife, Inc. (November 2011 – July 2017)
		• Executive Vice President of MLIC (January 2011 – November 2011)
John D. McCallion	46	• Executive Vice President and Chief Financial Officer of MetLife, Inc. (August 2018 – July 2019) (November 2019 – present)
		• Executive Vice President and Chief Financial Officer and Treasurer of MetLife, Inc. (May 2018 – August 2018) (July 2019 – November 2019)
		• Executive Vice President and Treasurer of MetLife, Inc. (July 2016 – May 2018)
		• Senior Vice President and Chief Financial Officer, EMEA, of MetLife Group, Inc. (August 2014 – June 2016)
		• Vice President and Chief Financial Officer, EMEA, of MLIC (September 2012 – July 2014)
Marlene Debel	52	• Executive Vice President and Chief Risk Officer of MetLife, Inc. (May 2019 – present)
		• Executive Vice President and Head of Retirement & Income Solutions of MetLife, Inc. (March 2018 – May 2019)
		• Executive Vice President and Chief Financial Officer, U.S. Business, of MetLife, Inc. (July 2016 – March 2018)
		• Executive Vice President and Treasurer of MetLife, Inc. (June 2011 – July 2016)
Stephen W. Gauster	49	• Executive Vice President and General Counsel of MetLife, Inc. (May 2018 – present)
		• Senior Vice President and Interim General Counsel of MetLife, Inc. (July 2017 – May 2018)
		• Senior Vice President and Chief Counsel, General Corporate Section of the Law Department (January 2016 – June 2017)
		• Senior Vice President, Chief Corporate Counsel and Assistant Secretary, Assurant, Inc., an insurance company (September 2008 – December 2015)
Steven J. Goulart	61	• Executive Vice President and Chief Investment Officer of MetLife, Inc. (May 2011 – present)
		• Head of the Portfolio Management Unit as Senior Managing Director of MLIC (January 2011 – April 2011)
		• Senior Vice President and Treasurer of MetLife, Inc. (July 2009 – April 2011)
Esther S. Lee	61	• Executive Vice President and Global Chief Marketing Officer of MetLife, Inc. (January 2015 – present)
		• Senior Vice President, Brand Marketing, Advertising and Sponsorships of AT&T, Inc., a communications company (August 2011 – December 2014)
Bill Pappas	50	• Executive Vice President and Head of Global Technology and Operations of MetLife, Inc. (November 2019 – present)
		• Head of Global Operations, Bank of America, a financial services company (February 2016 – November 2019)
		• Chief Information Officer, Bank of America (February 2010 – February 2016)
Susan M. Podlogar	56	• Executive Vice President and Chief Human Resources Officer of MetLife, Inc. (July 2017 – present)
		• Vice President, Human Resources, Global Medical Devices, Johnson & Johnson, a medical devices, pharmaceutical and consumer products company (May 2016 – June 2017)
		• Vice President, Human Resources, EMEA, Global Total Rewards, Johnson & Johnson (January 2015 – May 2016)
Kishore Ponnavolu	55	• President, Asia, of MetLife, Inc. (September 2018 – present)
		• Executive Vice President, MetLife Auto and Home (November 2013 – August 2018)
Oscar A. Schmidt	60	• President, Latin America, of MetLife, Inc. (May 2018 – present)
		• Executive Vice President, Head of Latin America of MLIC (January 2010 – April 2018)
Ramy Tadros	44	• Executive Vice President and President, U.S. Business, of MetLife, Inc. (May 2019 – present)
		• Executive Vice President and Chief Risk Officer of MetLife, Inc. (September 2017 – April 2019)
		• Management Consultant, Oliver Wyman, Inc., a consulting company (September 1997 – July 2017)

Trademarks

We have a worldwide trademark portfolio that we consider important in the marketing of our products and services, including, among others, the trademark "MetLife." As a result of the acquisition of American Life and Delaware American Life Insurance Company (collectively, "ALICO"), we acquired trademarks of American Life, including the "ALICO" trademark. In addition, as a result of our acquisition of ProVida, we acquired "PROVIDA" and other trademarks. We believe that our rights in our trademarks are well protected.

Available Information

MetLife files periodic reports, proxy statements and other information with the SEC. The SEC maintains an internet website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including MetLife, Inc.

MetLife makes available, free of charge, on its website (www.metlife.com) through the Investor Relations web page (https://investor.metlife.com), its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to all those reports, as soon as reasonably practicable after filing (furnishing) such reports to the SEC. MetLife encourages investors to visit the Investor Relations web page from time to time, where it announces additional financial and other information about it to its investors, including in news releases, public conference calls and webcasts. The information found on MetLife's website is not incorporated by reference into this Annual Report on Form 10-K or in any other report or document MetLife files with the SEC, and any references to MetLife's website are intended to be inactive textual references only.

Item 1A. Risk Factors

You should carefully consider the following risk factors. Any of these risk factors could harm our businesses, results of operations, financial condition or liquidity. You should not consider these risk factors to be a complete set of all potential risks that could affect MetLife. These risk factors should be considered carefully together with other information contained in this Annual Report on Form 10-K, including "Business," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and accompanying notes in "Financial Statements and Supplementary Data," and the other reports and materials filed by MetLife with the SEC. Many of these risks are interrelated and could occur under similar business and economic conditions, and the occurrence of certain of them may in turn cause the emergence or exacerbate the effect of others. Such a combination could materially increase the severity of the impact of these risks on our businesses, results of operations, financial condition or liquidity.

Economic Environment and Capital Markets Risks

Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition

Market factors, including interest rates, credit spreads, equity prices, derivative prices and availability, real estate markets, foreign currency exchange rates, consumer and government spending, business investment, volatility, disruptions and strength of the capital markets, deflation and inflation, and government actions could harm our financial condition, business operations, or ability to receive dividends from our insurance subsidiaries and meet our obligations. Such factors could also harm our results of operations, liquidity or cash flows through realized investment losses, derivative losses, changes in insurance liabilities, impairments, increased valuation allowances, increases in reserves, reduced net investment income and changes in unrealized gain or loss positions.

Sustained periods of low interest rates and risk asset returns may reduce income from our investment portfolio, increase our liabilities for claims and future benefits, and increase the cost of risk transfer measures, decreasing our profit margins. During certain market events, such as a global credit crisis, a market downturn, or sustained low market returns, we may incur significant losses due to, among other reasons, losses incurred in our general account and the impact of guarantees, including increases in liabilities, capital maintenance obligations and collateral requirements. Any of these events could also impair our financial strength ratings.

Higher unemployment, higher inflation, lower family income, lower corporate earnings, lower business investment, lower consumer spending, elevated incidence of claims, adverse utilization of benefits relative to our best estimate expectations, lapses or surrenders of policies, reduced demand for our products, and deferred or canceled payments of insurance premiums may negatively affect our earnings and capitalization and harm our business, results of operations or financial condition.

Declining equity markets may decrease the account value of our products, reducing certain fees generated by these products, which may increase the level of insurance liabilities we carry, accelerate the amortization of deferred policy acquisition costs

("DAC"), and increase funding to our captive reinsurers. Additionally, lower interest rates may reduce returns in fixed income investments.

Interest Rate Risk

Some of our products expose us to interest rate risks, including reductions in the difference between short-term and long-term interest rates, which may reduce or eliminate our investment spread and net income.

During periods of lower interest rates, we may need to reinvest proceeds from certain investments at lower yields, reducing our investment spread. Moreover, borrowers may prepay or redeem the fixed income securities and loans in our investment portfolio with greater frequency. Although we may be able to lower interest crediting rates to help offset decreases in spreads, our ability to lower these rates is limited to our products that have adjustable interest crediting rates, which could be limited by competition or contractually guaranteed minimum rates and may not match the timing or magnitude of changes in asset yields. As a result, our investment spread may decrease or become negative, harming our results of operations or financial condition.

Lower spreads may accelerate the amortization of DAC, reducing net income and in turn, harming our credit instrument covenants or rating agency assessment of our financial condition. During periods of declining interest rates, life insurance and annuity products may be more attractive investments to consumers, resulting in increased premium payments on certain products, repayment of policy loans and increased persistency, while our new investments carry lower returns. A market interest rate decline could also reduce our return on investments that do not support particular policy obligations. During periods of sustained lower interest rates, our reserves may need to be increased. Accordingly, declining and sustained low interest rates may harm our results of operations, financial position, cash flows, profitability, or issuance of dividends.

Interest rate increases may also harm our profitability. During rapidly increasing interest rates, we may not be able to replace the investments in our general account with higher yielding investments needed to fund the higher crediting rates required to stay competitive. This could result in a lower spread, lower profitability, decreased sales, and greater loss of existing contracts and related assets. In addition, policy loans, surrenders and withdrawals may increase as policyholders seek investments with higher perceived returns. This may result in cash outflows requiring the sale of investments on less favorable terms, resulting in investment losses. We may accelerate the amortization of DAC and value of business acquired ("VOBA"), reducing net income, harming our credit instrument covenants and rating agency assessment of our financial condition, and cause us to accelerate the amortization of negative VOBA, increasing net income. Interest rate increases may harm the value of our investment portfolio, for example, by decreasing the estimated fair values of fixed income securities, and may increase our daily settlement payments on interest rate futures and cleared swaps, resulting in increased cash outflows and liquidity needs. Furthermore, if interest rates rise, our unrealized gains on fixed income securities may decrease and our unrealized losses may increase. The accumulated change in estimated fair value of these fixed income securities would be recognized in net income when a gain or loss is realized upon the sale of the security or if the decline in estimated fair value is determined to be other than temporary and an impairment charge to earnings is taken. Finally, an increase in interest rates may decrease fee income associated with a decline in the value of variable annuity account balances invested in fixed income funds.

Actions resulting from the monetary policies of the Federal Reserve Board and of central banks around the world may also impact the pricing levels of risk-bearing investments and may harm our investment income or product sales.

The measures we take to mitigate the risks of investing in a changing interest rate environment, such as mitigating our fixed income investments relative to our interest rate sensitive liabilities may not be sufficient. For some of our liability portfolios, it is not possible to invest assets at the full liability duration, thereby creating some asset/liability mismatch. In addition, asymmetrical and non-economic accounting may cause material changes to our net income and stockholders' equity because our non-qualified derivatives are recorded at fair value through earnings, while the related hedged items either follow an accrual-based accounting model, or are recorded at fair value through other comprehensive income.

Regulators, agencies, or benchmark administrators may take actions resulting in changes to the way LIBOR is determined, the discontinuance of reliance on LIBOR as a benchmark rate or the establishment of alternative reference rates, which could harm our business. The Federal Reserve Bank of New York began publishing a Secured Overnight Financing Rate, which is intended to replace U.S. dollar LIBOR. Plans for alternative reference rates for other currencies have also been announced. Although the full impact of transition remains unclear, any change or discontinuation of LIBOR may adversely impact interest rates, as well as the value of, return on and markets for a broad array of financial products, including certain of our financial instruments whose value is tied to LIBOR or a LIBOR alternative. Additionally, the effect on our business and financial instruments will vary depending on existing fallback provisions in individual contracts and whether, how, and when industry participants develop and adopt alternative reference rates and fallbacks for both legacy and new products or instruments. Uncertainty regarding the continued use and reliability of LIBOR, and uncertainty or differences in the calculation of the applicable interest rate or payment amount depending on the terms of the governing instruments could harm the value of such instruments. Our transition to alternative reference rates and implementation of necessary changes to our systems, processes and models requires significant work and may negatively impact other aspects of our business, including products, pricing, operations, and valuations. Any change to or discontinuation of similar benchmark rates other than LIBOR could have similar effects.

Credit Spread Risk

Changes in credit spreads may result in market price volatility and cash flow variability. Market price volatility can make valuations of our securities difficult if trading becomes less frequent, which could harm our results of operations or financial condition and may require additional reserves. Market volatility may cause changes in credit spreads, defaults and a lack of pricing transparency, which could harm our results of operations, financial condition, liquidity or cash flows. An increase in credit spreads relative to U.S. Treasury benchmarks may increase our borrowing costs and decrease certain product fee income.

Equity Risk

Downturns and volatility in equity markets may harm our savings and investment products' revenues and investment returns, where fee income is earned based upon the estimated fair value of our managed assets. The variable annuity business is highly sensitive to equity markets, and a sustained weakness or stagnation in the equity markets may decrease these products' revenues and earnings. Furthermore, certain of our variable annuity products offer guaranteed benefits that increase our potential benefit exposure should equity markets decline or stagnate.

Sustained declines in long-term equity returns or interest rates may harm the funding of our pension plans and other postretirement benefit obligations. An increase in equity markets could increase settlement payments on equity futures, which may increase our cash outflows and liquidity needs.

The timing of distributions from and valuations of our investments in leveraged buy-out funds, hedge funds and other private equity funds depends on the performance of the underlying investments, distribution schedules, and the funds' need for cash. The amount of net investment income from these investments can vary substantially from period to period and significant volatility may harm our returns and net investment income. In addition, downturns or volatility in the equity markets may decrease the estimated fair value of our alternative investments or equity securities.

Real Estate Risk

Changes in the supply and demand of leasable commercial space, creditworthiness of tenants and partners, capital markets volatility, interest rate fluctuations, commodity prices, farm incomes and housing and commercial property market conditions, among others, may adversely impact our investments in commercial, agricultural and residential mortgage loans, and real estate and real estate joint ventures, harming our results of operations, financial condition, liquidity or cash flows.

Obligor and Counterparty Risk

Our general account investments in certain countries could be adversely affected by volatility resulting from local economic and political concerns, as well as volatility in specific sectors. Additionally, U.S. states and municipalities may face budget deficits and other financial difficulties, which may harm the value of securities we hold issued by or under the auspices of such U.S. states, municipalities and political subdivisions.

The issuers or guarantors of fixed income securities and mortgage loans we own may default on principal and interest payments they owe us. Additionally, the change in value of underlying collateral within asset-backed securities ("ABS"), including mortgage-backed securities, may result in a default on principal and interest payments, reducing our cash flows. The occurrence of a major economic downturn, acts of corporate malfeasance, widening credit spreads, or other adverse events may cause the estimated fair value of our portfolio of fixed income securities and mortgage loans and our earnings to decline and the default rate of the fixed income securities and mortgage loans in our investment portfolio to increase.

Many of our transactions with counterparties such as brokers and dealers, central clearinghouses, commercial banks, investment banks, hedge funds, investment funds, reinsurers and other financial institutions expose us to the risk of counterparty default. Such credit risk may be exacerbated if we cannot realize the collateral held by us in secured transactions or cannot liquidate such collateral at prices sufficient to recover the full amount of the loan or derivative exposure due to us. Furthermore, potential action by governments and regulatory bodies, such as investment, nationalization, conservatorship, receivership and other intervention, or lack of action by governments and central banks, as well as deterioration in the banks' credit standing, could negatively impact these instruments, securities, transactions and investments or limit our ability to trade with them. Any such losses or impairments to the carrying value of these investments or other changes may harm our business and results of operations.

Currency Exchange Rate Risk

Fluctuations in foreign currency exchange rates against the U.S. dollar may adversely affect our non-U.S. dollar denominated investments, investments in non-U.S. subsidiaries, net income from non-U.S. operations and issuance of non-U.S. dollar denominated instruments. Fluctuations in foreign currency exchange rates may also make certain of our products less attractive to customers, which may increase levels of early policy terminations and decrease sales volume and our in force business. Such negative effects may be exacerbated if international markets experience severe economic or financial disruptions or significant currency devaluations, if a foreign economy is determined to be "highly inflationary," or if a country withdraws from the Euro zone. Fluctuations in foreign currency exchange rates may harm our operations, earnings or investments in the affected countries.

We may be unable to mitigate the risk of such changes in exchange rates due to unhedged positions, asymmetrical and non-economic accounting resulting from derivative gains (losses) on non-qualifying hedges, the failure of hedges to effectively offset the impact of the foreign currency exchange rate fluctuation, or other factors. Fluctuations in currency exchange rates may adversely affect the translation of results into our U.S. dollar basis consolidated financial statements.

Derivatives Risk

If our counterparties, clearing brokers or central clearinghouses fail or refuse to honor their obligations under our derivatives, our hedges of the related risk will be ineffective. A counterparty's or central clearinghouse's insolvency, inability or unwillingness to make payments under the terms of derivatives agreements or to return collateral could harm our financial condition and results of operations, including our liquidity. If the net estimated fair value of a derivative to which we are a party declines, we may need to pledge collateral or make payments. In addition, ratings downgrades or financial difficulties of derivative counterparties may require us to utilize additional capital for the impacted businesses. Furthermore, our derivatives valuation may change based on our valuation methodology or errors in such valuation or valuation methodology.

Terrorism and Security Risks

The continued threat of terrorism, ongoing military and other actions, potential military conflicts, and heightened security measures may cause significant volatility in global financial markets and result in loss of life, property damage, additional disruptions to commerce and reduced economic activity. The value of our investment portfolio may be adversely affected by declines in the credit and equity markets and reduced economic activity caused by such threats. Companies in which we maintain investments may suffer losses as a result of financial, commercial or economic disruptions, and such disruptions might affect the ability of those companies to pay interest or principal on their securities or mortgage loans. Terrorist or military actions also could disrupt our operations centers and result in higher than anticipated claims under our insurance policies.

Adverse Capital and Credit Market Conditions May Significantly Affect Our Ability to Meet Liquidity Needs, Our Access to Capital and Our Cost of Capital

In cases of volatility, disruptions, or other conditions in global capital markets we may have to seek additional financing, the availability and cost of which could be adversely affected by market conditions, regulatory considerations, availability of credit to our industry generally, our credit ratings and credit capacity, reduced business activity, or investment losses, and the perception of our financial prospects. Our access to funds may be impaired if regulatory authorities or rating agencies take negative actions against us. We may not be able to successfully obtain additional financing we need on favorable terms or at all. We may be required to return significant amounts of cash collateral on short notice under securities lending or derivatives agreements or post collateral or make payments related to specified counterparty agreements.

Our business and financial results may suffer without sufficient liquidity through impaired ability to pay claims, other operating expenses, interest on our debt and dividends on our capital stock, cash or collateral to our subsidiaries, maintain our securities lending, replace certain maturing liabilities, sustain our operations and investments, and repurchase our common stock. Capital and credit market volatility may limit our access to capital we need to operate, limiting our ability to raise capital, issue the types of securities we would prefer, timely replace maturing liabilities, satisfy regulatory requirements, and access capital to grow our business, any of which could decrease our profitability and significantly reduce our financial flexibility. Such events could harm our results of operations, financial condition, cash flows, or statutory capital position.

An Inability to Access Our Credit Facility Could Result in a Reduction in Our Liquidity and Lead to Downgrades in Our Credit and Financial Strength Ratings

We may fail to comply with or fulfill all conditions under the unsecured credit facility (the "Credit Facility") MetLife, Inc. and MetLife Funding, Inc. ("MetLife Funding") maintain. Lenders may fail to fund their lending commitments under the Credit Facility due to insolvency, illiquidity or other reasons. This could harm our ability to meet our obligations, our credit and financial strength ratings, as well as our liquidity, financial condition or results of operations.

A Downgrade or a Potential Downgrade in Our Financial Strength or Credit Ratings Could Result in a Loss of Business and Harm Our Financial Condition or Results of Operations

Nationally Recognized Statistical Rating Organizations ("NRSROs") and others may, at any time, downgrade our financial strength ratings or credit ratings, lower our ratings outlooks, increase the scope or frequency of their reviews, or increase capital or other requirements to maintain ratings. Such changes could harm our business, results of operations or financial condition by reducing product sales, forcing us to change product pricing, increasing financing costs, increasing policy surrenders or withdrawals, increasing collateral requirements, increasing the risk of derivative terminations, increasing the cost of reinsurance, increasing regulatory scrutiny, or various other factors.

Reinsurance May Not Be Available, Affordable or Adequate to Protect Us Against Losses

Our reinsurance costs may increase, or reinsurance may not be available, due to market conditions or other factors, which may reduce our earnings. Our risk of loss may increase if we decrease the amount of our reinsurance. Any of these could harm our ability to write future business or result in the assumption of more risk with respect to the policies we issue.

We may incur costs as a result of a reinsurer's insolvency, inability or unwillingness to make payments, or inability or unwillingness to maintain collateral, harming our financial condition or results of operations, including our liquidity.

Our Statutory Life Insurance Reserve Financings May Be Subject to Cost Increases, and New Financings May Be Subject to Limited Market Capacity

If MetLife's ratings decline, market capacity is limited, or on other repricing occasions, our costs to finance statutory life insurance reserves may increase, harming our financial results. If regulators disallow assets to back statutory reserves, we would not be able to take some or all related statutory reserve credit, which may harm the statutory capitalization of certain of our insurance subsidiaries.

Regulatory and Legal Risks

Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition

Insurance or other regulators may change licensing, permit, or approval requirements, or take other actions that may harm our business. They may also take actions that harm our customers and independent sales intermediaries or their operations, which may affect our business relationships with them and their ability to purchase or distribute our products.

Regulations such as financial services regulation, insurance regulation, regulation of variable annuities, securities regulation, derivatives regulation, pension regulation, health care regulation, accounting, cybersecurity regulation, privacy and data protection regulation, tort reform legislation and taxation, laws and regulations that affect customers, sales intermediaries, or others, and our or other parties' failure to comply with these requirements, may harm our business, results of operations or financial condition. Adverse regulatory examinations or audits may also harm our business, results of operations and financial condition. Regulators may interpret rules differently from the way we have, or change interpretations of laws or rules, and legislators may change statutes, which may adversely affect our businesses. Changes to laws or to rules regulators propose or adopt may harm our business or ability to continue to offer products we do today or to introduce new products.

We may incur costs to comply with laws and regulations, and changes to these laws and regulations may increase our expenses. Our failure to strictly comply with our own policies or with regulatory requirements may harm our reputation or result in sanctions or legal claims.

Laws, regulations or regulatory actions may limit or change the type, amount or structure of compensation or benefits we offer our employees or others, which may harm our ability to compete in recruiting and retaining key personnel. Our failure to comply with fiduciary or other benefit-related obligations may harm our business, reputation, results of operations, or financial condition.

We may incur capital requirement, reserve requirement, risk management infrastructure, and reporting costs to comply with solvency standards. We may be subject to enhanced capital standards, supervision and additional requirements, such as group capital standards or insurer capital standards. MetLife, Inc. could be compelled to undergo FDIC liquidation if it becomes insolvent or is in danger of defaulting on its obligations, imposing greater losses on shareholders and unsecured creditors than under the Bankruptcy Code. This could also apply to financial institutions whose debt we hold and could harm the value of our holdings. We could be assessed charges in connection with a financial company liquidation, which could harm our financial condition.

Our ability to react to rapidly changing economic conditions and the dynamic, competitive markets may be impaired if our product designs do not allow frequent and contemporaneous revisions of key pricing elements, or if we are unable to work collaboratively with regulators. Changes in regulatory approval processes, rules and other dynamics in the regulatory process could harm our ability to react to such changing conditions. Rules on defined benefit pension plan funding may reduce the likelihood or delay corporate plan sponsors in terminating their plans or engaging in transactions to partially or fully transfer pension obligations. This could affect the mix of our pension risk transfers and increase non-guaranteed funding products and could harm our results of operations or financial condition.

Changes in Tax Laws or Interpretations of Such Laws Could Reduce Our Earnings and Materially Impact Our Operations by Increasing Our Corporate Taxes and Making Some of Our Products Less Attractive to Consumers

Changes in tax laws or interpretations of such laws - including U.S. Tax Reform - could increase our corporate taxes and reduce our earnings. Changes may increase our effective tax rate or have implications that make our products less attractive to consumers. Tax authorities may enact laws, change regulations to increase existing taxes, or add new types of taxes and authorities who have not imposed taxes in the past, may impose additional taxes. Any such changes may harm our business, results of operations or financial condition.

Customers shifting away from employee benefits, life insurance and annuity contracts, or other tax-preferred products would reduce our income from these products and our asset base, reducing our earnings and potentially affecting the value of our deferred tax assets.

Litigation and Regulatory Investigations Are Increasingly Common in Our Businesses and May Result in Significant Financial Losses and Harm to Our Reputation

Legal or regulatory actions, inquiries or investigations, whether ongoing or yet to come, could harm our reputation, ability to attract or retain customers or employees, business, financial condition, or results of operations, even if we ultimately prevail. Regulators or private parties may bring class actions, individual suits, or investigations seeking large recoveries alleging wrongs relating to sales or underwriting practices, claims payments and procedures, product design, disclosure, administration, investments, denial or delay of benefits and breaches of fiduciary or other duties. We may be unable to anticipate the outcome of a litigation and the amount or range of loss because we do not know how adversaries, fact finders, courts, regulators, or others will evaluate evidence, the law, or accounting principles, and whether they will do so differently than we have.

Capital Risks

Legal and Regulatory Restrictions May Prevent Us from Paying Dividends and Repurchasing Our Stock

Our financial condition, results of operations, cash requirements, future prospects, capital position, liquidity, financial strength and credit ratings, as well as regulatory restrictions on the payment of dividends by MetLife, Inc.'s insurance subsidiaries, general market conditions, the market price of our common stock compared to management's assessment of the stock's underlying value, applicable regulatory approvals, other legal and accounting factors, and other factors deemed relevant by our Board may preclude us from paying dividends or repurchasing our common stock.

If we do not pay dividends on our preferred stock or pay interest on our junior subordinated debentures or trust securities, terms of those instruments may restrict our ability to pay dividends or repurchase common stock, or pay dividends or interest on our preferred stock and junior subordinated debentures. Further, terms applicable to our Floating Rate Non-Cumulative Preferred Stock, Series A (the “Series A preferred stock”), junior subordinated debentures and trust securities may prevent us from paying dividends or interest on those instruments. We may not be able to eliminate these restrictions through the repayment, redemption or purchase of junior subordinated debentures.

We may be restricted from repurchasing shares or entering into share repurchase programs when we are aware of material non-public information, harming our ability to repurchase shares.

As a Holding Company, MetLife, Inc. Depends on the Ability of Its Subsidiaries to Pay Dividends, a Major Component of Holding Company Free Cash Flow

If the cash MetLife, Inc. receives from its subsidiaries through dividends and other payments is insufficient for it to fund its debt service and other holding company obligations, MetLife, Inc. may have to issue debt or equity, or sell assets. It may also be insufficient to meet our free cash flow goals and our plans to distribute cash to shareholders.

Insurance regulators may restrict dividends or other payments above certain amounts where their approval is required, or if they determine payments could be adverse to our policyholders or contractholders. Business conditions, rating agency considerations, taxation, dividend and repatriation rules, and monetary transfer and foreign currency exchange rules may limit our insurance subsidiaries’ dividends and other payments. We may need to transfer capital among our companies to comply with net worth maintenance or other support agreements, limiting capital available for other purposes.

Investment Risks

Defaults, Downgrades, Volatility or Other Events May Adversely Affect the Investments We Hold, Resulting in a Reduction in Our Net Income and Profitability

Our estimated fair value of our fixed income securities portfolio and corresponding earnings may decline, and the default rate of the fixed income securities in our investment portfolio may increase, in case of a major economic downturn, acts of corporate malfeasance, widening credit risk spreads, ratings downgrades or other events could harm the issuers or guarantors of securities or the underlying collateral of structured securities that we hold. We may have to hold more capital to support our securities to maintain our RBC levels, should securities we hold suffer a ratings downgrade. Our intent to sell, or our assessment of the likelihood that we will be required to sell, fixed income securities may increase our writedowns or impairments. Our realized losses or impairments on these securities may harm our net income.

The default rate, loss severity or other performance of our mortgage loan investments may change, harming our business, results of operations and financial condition. Any concentration of our mortgage loans by geography, tenancy or property-type, may have an adverse effect on our investment portfolio, the price we can obtain when we sell assets, and our results of operations or financial condition. Legislation or regulations that would allow or require modifications to the terms of, or impact the value of, mortgage loans could harm our investment portfolio, business, results of operations or financial condition.

We May Have Difficulty Selling Certain Holdings in Our Investment Portfolio or in Our Securities Lending Program in a Timely Manner and Realizing Full Value

When we sell holdings in our investment portfolio, we may not receive the price we seek and may sell at a price lower than our carrying value, whether due to limited markets in privately-placed fixed income securities, certain derivative instruments, mortgage loans, policy loans, direct financing and leveraged leases, other limited partnership interests, tax credit and renewable energy partnerships and real estate equity, including real estate joint ventures and funds, reduced liquidity for other investments during periods of market volatility or disruption, or other reasons. We may realize losses that harm our results of operations and financial condition and our financial ratios, which could harm our compliance with our credit instruments and rating agency capital adequacy measures.

We may face similar risks if we are required under our securities lending program to return significant amounts of cash collateral that we have invested. Our securities lending activities may decrease, harming our net investment income.

Our Requirements to Pledge Collateral or Make Payments Related to Declines in Estimated Fair Value of Derivatives Transactions or Specified Assets in Connection with OTC-Cleared and OTC-Bilateral Transactions May Adversely Affect Our Liquidity, Expose Us to Central Clearinghouse and Counterparty Credit Risk, and Increase our Costs of Hedging

We may have to increase the collateral we pledge and the payments we make under our derivatives transactions. Regulators, clearinghouses, or counterparties may restrict or eliminate eligible collateral or charge us to pledge such collateral, which would increase our costs and harm the liquidity and composition of our investments.

Changes to Our Valuation of Securities and Investments, the Allowances and Impairments Taken on Our Investments, and Our Methodologies, Estimations and Assumptions Could Harm Our Results of Operations or Financial Condition

During periods of market disruption or rapidly-changing market conditions, such as significantly rising or high interest rates, rapidly widening credit spreads or illiquidity, or infrequent trading, or when market data is limited, our assets may become less liquid and we may base our asset valuations on less-observable and more subjective judgments, assumptions, or methods that may result in estimated fair values that significantly vary by period, and may exceed the investment's sale price. Decreases in the estimated fair value of our securities may harm our results of operations or financial condition.

Business Risks

Differences Between Actual Claims Experience and Underwriting and Reserving Assumptions May Adversely Affect Our Financial Results

To the extent that our actual claims experience is less favorable than the underlying assumptions we used in establishing claim liabilities, we could be required to reduce DAC or VOBA, increase our liabilities or incur higher costs.

The amounts that we will ultimately pay to settle our liabilities, particularly when those payments may not occur until well into the future, may vary from what we expect. We may change our liability assumptions and increase our liabilities based on actual experience and accounting requirements. Our operating practices and procedures that support our policyholders and contractholder obligation assumptions, such as obtaining, accumulating, and filtering data, and our use of technology, such as database analysis and electronic communications, may affect our reserve estimates. To the extent that these practices and procedures do not accurately produce the data to support our assumptions or cause us to change our assumptions, or to the extent that enhanced technological tools become available to us, we may change those assumptions and procedures, as well as our reserves. To the extent that any of our operating practices and procedures do not accurately produce, or reproduce, data that we use to conduct any or all aspects of our business, such errors may negatively impact our business, reputation, results of operations, or financial condition.

We may change our assumptions, models, or reserves due to increased longevity. Increases in the prevalence and accuracy of genetic testing, or restrictions on its use, may exacerbate adverse selection risks. Each of these may harm our business, results of operations, or financial condition.

The Global Nature of Our Operations Exposes Us to a Variety of Political, Legal, Operational, Economic and Other Risks

The global nature of our business operations exposes us to a wide range of political, legal, operational, economic and other risks, including but not limited to: nationalization or expropriation of assets; imposition of limits on foreign ownership of local companies; changes in laws, their application or interpretation; political instability; economic or trade sanctions; dividend limitations; price controls; currency exchange controls or other transfer or exchange restrictions; difficulty enforcing contracts; regulatory restrictions; and public or political criticism of our business and operations.

Such actions or events may directly or indirectly harm our business or reputation in the relevant jurisdictions, as well as other jurisdictions. Some of our businesses operate in emerging markets, where many of these risks are heightened.

Additionally, we face risks that may impact our global operations, including but not limited to international trade agreements, uncertainties in intergovernmental organizations, pension system reforms, and others.

If we encounter labor problems with workers' associations or trade unions, or if any of our businesses are not successful, we may lose all or most of our investment in that business, which may harm our results of operations.

Expanding our operations to new businesses or jurisdictions may require considerable management time and expenses before significant, if any, revenues and earnings are generated, which may reduce management and financial resources available for other uses. Our operations in new or existing markets may be unprofitable or achieve low margins, harming our operating margins and results of operations.

Competitive Factors May Adversely Affect Our Market Share and Profitability

Competitive pressures, based on a number of factors including service, product features, scale, price, financial strength, claims-paying ratings, credit ratings, e-business capabilities, name recognition, and other factors, may adversely affect the persistency of our products and our ability to sell products in the future. We may be harmed by competition from other insurance companies, as well as non-insurance financial services companies, which may have a broader array of products, more competitive pricing, higher claims paying ability ratings, greater financial resources with which to compete, or pre-existing customer bases for financial services products. Additionally, we may lose purchasers of group insurance products that are underwritten annually due to more favorable terms from competitors. Furthermore, the investment management and securities brokerage businesses have relatively low barriers to entry and continually attract new entrants. Our customers and clients may engage other financial service providers, and the resulting loss of business may harm our results of operations or financial condition.

An increase in consolidation activity among banks and broker-dealers may negatively impact the insurance industry's sales and increase competition for access to distributors, resulting in greater distribution expenses and may impair our ability to market insurance products to or expand our current customer base. Consolidation and other industry changes may also increase the likelihood that distributors will renegotiate agreements on terms less favorable to us.

In addition, legislative and other changes affecting the regulatory environment for our business may not impact all activities and companies equally, which could adversely affect our competitive position within the insurance industry and the broader financial services industry.

Technological Changes May Present New and Intensified Challenges to Our Business

Technological changes may present us with new or intensified challenges. We may be unable to accurately, timely, or completely process the increased volume and variety of information relating to our businesses, including information related to deaths, that new technological tools for data collection and analysis make available. We may modify our assumptions, models, or reserves as a result of our review of such information. Changes in collection and analysis of data could expose us to regulatory or legal actions and may harm our business, reputation, results of operations, and financial condition.

Technological changes may change how we interact with customers, who may expect increased choices, and we may have to redesign our products as a result. Our distribution channels may become more automated to increase flexibility of access to our services and products. We may incur significant costs to implement these changes. If we are unsuccessful, our competitive position and distribution relationships may be harmed.

Technological advances may also change our investments composition and results. For example, changes in energy technology and increasing consumer preferences for e-commerce may harm the profitability of some businesses. Our failure to adequately adjust our investments may harm our business, results of operations or financial condition.

Catastrophes May Adversely Impact Liabilities for Policyholder Claims and Reinsurance Availability

Claims resulting from catastrophic events could harm our financial results, profitability, and financial condition. Catastrophic events could impair assets in or otherwise harm our investment portfolio, and could harm our reinsurers' financial condition, increasing the probability of reinsurance recoveries defaults. Catastrophic events may also reduce economic activity in affected areas, which could harm our business, prospects for new business, or value of our investments. The severity of claims from catastrophic events may be higher if property values increase due to inflation or other factors or our insured lives or property are geographically concentrated.

Major public health issues, such as a pandemic (e.g. the novel coronavirus COVID-19) or other event that causes a large number of illnesses or deaths, could harm our insurance operations and have a major impact on the global economy and financial markets. Governmental and non-governmental organizations may not effectively combat the spread and severity of such a pandemic, increasing their harm to us. An event that affects the workforce of one or more of our customers could increase our mortality or morbidity claims. Any of these events could harm our business, results of operations or financial condition.

Catastrophe losses as a result of hurricanes, windstorms, earthquakes, hail, tornadoes, explosions, severe winter weather, fires and man-made events such as terrorist attacks may harm our business, results of operations or financial condition.

Climate change may increase the frequency and severity of weather related disasters and pandemics. Climate change regulation may harm the value of investments we hold or harm our counterparties, including reinsurers.

Consistent with industry practice and accounting standards, we establish liabilities for claims arising from a catastrophe only after assessing the probable losses arising from the event. The liabilities we have established may not be adequate to cover our actual claim liabilities. Our efforts to manage risks may be impeded by restrictions on our ability to withdraw from catastrophe-prone areas or on internal reinsurance transactions. We may be unable to obtain catastrophe reinsurance at rates we find acceptable, or at all.

We may be called upon to make contributions to guaranty associations or similar organizations as a result of catastrophes, which may harm our financial condition or results of operations.

We May Need to Fund Deficiencies in Our Closed Block; Assets Allocated to the Closed Block Benefit Only the Holders of Closed Block Policies

The closed block assets established in connection with the MLIC demutualization, their cash flows, and the revenue from the closed block policies may not be sufficient to provide for the policies' guaranteed benefits. If they are not, we must fund the shortfall. We may choose, for competitive or other reasons, to support policyholder dividend payments with our general account funds. Such actions may reduce funds otherwise be available to us for other uses and could harm our results of operations or financial condition.

We May Be Required to Recognize an Impairment of Our Goodwill or Other Long-Lived Assets or to Establish a Valuation Allowance Against Our Deferred Income Tax Assets

We may reduce our estimated fair value of business units, impairing our goodwill and charging net income, if prolonged market declines or other factors negatively impact the performance of our businesses, harming our results of operations or financial position.

We may write down long-lived assets if we conclude we will be unable to recover their carrying amount, which could harm our results of operations or financial position.

We may charge net income because we determine that it is more likely than not that we will not realize a deferred income tax asset, based on the performance of the business and its ability to generate future taxable income, harming our results of operations or financial position. In addition, we may need to write-off deferred tax assets if tax rates change.

We May Be Required to Accelerate the Amortization of or Impair DAC, DSI or VOBA

Low investment returns, mortality, morbidity, persistency, interest crediting rates, dividends paid to policyholders, expenses to administer the business, creditworthiness of reinsurance counterparties and certain economic variables, such as inflation, may harm the gross profit or margins that we use to amortize DAC, deferred sales inducements ("DSI") and VOBA for many of our life and annuity products. We may accelerate that amortization in the period the actual experience is known, or due to significant or sustained equity market declines or significantly lower spreads, causing a charge to net income and harming our results of operations or financial condition.

Guarantees Within Certain Products May Decrease Our Earnings, Increase the Volatility of Our Results, Result in Higher Risk Management Costs and Expose Us to Increased Counterparty Risk

Our liabilities for guaranteed benefits, including guaranteed minimum death benefits ("GMDBs") (including but not limited to no-lapse guarantee benefits), guaranteed minimum withdrawal benefits ("GMWBs"), guaranteed minimum accumulation benefits ("GMABs"), guaranteed minimum income benefits ("GMIBs"), and minimum crediting rate features could increase if equity markets decline or become more volatile, or interest rates decrease, harming our net income.

Our derivatives and other risk management strategies to hedge our economic exposure to these liabilities may harm our results of operations. Our use of reinsurance and derivatives, or other risk management techniques may not offset the costs of guarantees or protect us against losses from changes in policyholder behavior or mortality or from market events. Any of these may harm our results of operations, including net income, capitalization, financial condition or liquidity, including our ability to receive dividends from our operating insurance companies.

Operational Risks

Our Risk Management Policies and Procedures or Our Models May Leave Us Exposed to Unidentified or Unanticipated Risk

Our enterprise risk management policies and procedures may not be sufficiently comprehensive and may not identify every risk to which we are exposed. The assumptions, projections and data on which our risk management models are based may be inaccurate, and our models may not be suitable for their purpose, be misused, not operate properly, and contain errors. Our decisions, including determination of reserves, based on such model output and reports could harm our results of operations. Our model adjustments may also harm our results of operations. We may fail to adequately identify or remediate model errors. Our models may not fully predict future exposures or correctly reflect past experience, which may harm our business, reputation, results of operations or financial condition.

Our evaluation of markets, clients, catastrophe occurrence or other matters may not always be accurate, complete, up-to-date or properly evaluated. We may not effectively identify and monitor all risks or appropriately limit our exposures and our associates, vendors or non-employee sales agents may not follow our risk management policies and procedures. Past or future misconduct by our associates, vendors or non-employee sales agents could result in investigations, violations of law, regulatory sanctions, litigation, reputational harm, or financial harm. We may have to implement more extensive or different risk management policies and procedures due to legal and regulatory requirements, which could impose costs and harm our results of operations.

Our Policies and Procedures May Be Insufficient To Protect Us From Certain Operational Risks

We may make errors in any of the large number of transactions we process through our complex administrative systems. Our controls and procedures to prevent such errors may not be effective. Our controls and procedures to comply with and enforce contractual obligations may not always be effective. Mistakes can subject us to claims from our customers and may harm our business, reputation, results of operations, or financial condition.

If we are unable to obtain necessary and accurate information from our customers or their employees, we may be unable to provide or verify coverage and pay claims, or we may pay claims without sufficient documentation, which may harm our business, reputation, results of operations, or financial condition.

The controls of our vendors on whom we rely may not meet our standards or be adequate, our vendors could fail to perform their services accurately or timely, the exchange of information between us and our vendors may be imperfect, or our vendors may suffer financial or reputational distress. Each of these may cause errors, misconduct, or discontinuation of services that could harm our business, reputation, results of operations, or financial condition.

We may fail to timely and completely escheat property. As a result, we may incur charges, reserve strengthening, and expenses, regulatory examinations, or penalties. Each of these may harm our reputation, regulatory relationships, business, financial condition, or results of operations.

Our practices and procedures may, at times, limit our efforts to contact all of our customers, which may result in delayed, untimely, or missed customer payments that may harm our reputation, regulatory relationships, business, financial condition, or results of operations.

Our associates, vendors, non-employee sales agents, customers, or others may commit fraud against us. Our policies and procedures may be ineffective in preventing, detecting or mitigating fraud and other illegal or improper acts, which could harm our business, reputation, financial condition, or results of operations.

Our failure to attract, motivate and retain employees, develop talent, and plan for management succession may harm our business, results of operations, or financial condition.

We may identify internal control deficiencies, disclosure control deficiencies, or material weaknesses. These may harm our business, reputation, results of operations, or the market price of our common stock.

A Failure in Our Cybersecurity or Other Information Security Systems or Our Disaster Recovery Plans, or Those of Our Suppliers, Could Result in a Loss or Disclosure of Confidential Information, Damage to Our Reputation and Impairment of Our Ability to Conduct Business Effectively

We and our suppliers' computer systems may suffer computer viruses or other malicious codes, unauthorized or fraudulent access, human errors, cyberattacks or other penetrations. Our efforts to reduce the risk of cyber-incidents and protect our information technology may be insufficient to prevent break-ins, attacks, fraud, security breaches or other unauthorized access to our and our suppliers' systems. We may not timely detect such incidents, and they may harm our business, reputation, financial condition, or results of operations.

We, our suppliers, and our customers may suffer disasters such as a natural catastrophe, epidemic, industrial accident, blackout, computer virus, terrorist attack, cyberattack or war, and disaster recovery systems may be insufficient, particularly if these affect computer-based data processing, transmission, storage and retrieval systems and destroy valuable data. Our ability to effectively conduct business and maintain the security, confidentiality or privacy of sensitive data, could be severely compromised if key personnel are unavailable, our suppliers' ability to provide goods and services, and our associates' ability to perform their job responsibilities are impaired by a disaster. Any insurance for liability, operational and other risks may be insufficient to protect us against such losses or may become less readily available or more expensive. Regulators' or others' scrutiny of cybersecurity, including new laws or regulations, could increase our compliance costs. Any of these could harm our business, reputation, results of operations, or financial position. We may not be able to reliably access all of the documents and records in the information storage systems we use, whether electronic or physical. We may fail to obtain or maintain all of the records we need to accurately and timely administer and establish appropriate reserves for benefits and claims with respect to, our products, which may harm our business, reputation, results of operations, or our financial condition.

Our continuous systems and processes evaluation and enhancement, including changes designed to enhance protective measures, increase our risk of a system or process failure or the creation of a gap in our security measures, which could harm our business, reputation, results of operations, or financial condition.

Any Failure to Protect the Confidentiality of Client Information Could Harm Our Reputation or Result in Legal or Regulatory Penalties

We or our suppliers may fail to maintain adequate internal controls, fail to comply with relevant policies and procedures, or policies, procedures and controls may not be sufficient. As a result, we may intentionally or unintentionally disclose or misuse confidential personal information, or others may misappropriate it, harming our reputation or causing civil or criminal penalties, which, in turn, could harm our business, financial condition, or results of operations. We may incur higher costs to comply with laws on, or regulators' scrutiny of, our use, collection, management, or transfer of data and other privacy practices.

Changes in Accounting Standards May Adversely Affect Our Financial Statements

We adopt accounting standard changes issued by the Financial Accounting Standards Board (the "FASB"), the IFRS Foundation, or others, and may do so earlier than required. We may not be able to predict or assess the effects of these changes, and they may harm our financial condition or results of operations.

Our Associates May Take Excessive Risks, Which Could Negatively Affect Our Financial Condition and Business

Our associates, including executives and others who manage sales, investments, products, wholesaling, underwriting, and others, may take excessive risks. Our compensation programs and practices, and our other controls, may not effectively deter excessive risk-taking or misconduct. Our associates may take excessive risks which could harm our reputation, financial condition or business operations.

We May Experience Difficulty in or Complications from Marketing and Distributing Products

Our product distributors may suspend, alter, reduce or terminate their distribution relationships with us if we change our strategy, if our business performance declines, as a result of rating agency actions or concerns about market-related risks, or for other reasons. Our distributors may merge, change their business models in ways that affect us, or terminate their distribution contracts with us, and new distribution channels could emerge, harming our distribution efforts. Distributors may try to renegotiate the terms of any existing selling agreements to less favorable terms due to consolidation or other industry changes or for other reasons. Disruption or changes to our relationships with our distributors could harm our ability to market our products and could harm our business, results of operations, or financial condition.

Our employees or unaffiliated firms or agents may distribute our products in an inappropriate manner, or our customers may not understand them or for whom they are unsuitable, harming our reputation or business.

Changes in Our Assumptions Used for Our Pension and Other Postretirement Benefit Plans May Result in Increased Expenses and Reduce Our Profitability

We may change our discount rate, rate of return on plan assets, mortality rate, compensation level or medical inflation assumptions, harming our benefit plan estimates, which could increase our expenses and reduce our profitability.

We May Not be Able to Protect Our Intellectual Property and May be Subject to Infringement Claims

We may be unable to prevent third parties from infringing on or misappropriating our intellectual property. We may incur litigation costs to enforce and protect it or to determine its scope or validity, and we may not be successful, harming our business, reputation and ability to compete.

In addition, we may be subject to claims by third parties for infringement of intellectual property, breach of license usage rights, or misappropriation of trade secrets. We may incur significant expenses for any such claims. If we are found to have infringed or misappropriated a third-party intellectual property right, we may be enjoined from providing certain products or services to our customers or from utilizing and benefiting from certain intellectual property. Alternatively, we could be required to enter into costly licensing arrangements with third parties or implement a costly alternative. Consequently, such claims may harm our business, reputation, or results of operations.

Risks Related to Acquisitions, Dispositions or Other Structural Changes

We Could Face Difficulties, Unforeseen Liabilities, Asset Impairments or Rating Actions Arising from Business Acquisitions or Integrating and Managing Growth of Such Businesses, Dispositions of Businesses, or Legal Entity Reorganizations

Acquisitions and dispositions of businesses, joint ventures, and other structural changes expose us to a number of risks arising from, among other factors, economic, operational, strategic, financial, tax, legal, regulatory, and compliance risks. As a result, there can be no assurance that any acquisition, disposition or reorganization will be completed as contemplated, or at all. We may not realize the anticipated economic, strategic or other benefits of any transaction. Effecting these transactions may result in harm to our business, unforeseen expenditures and liabilities or a performance different than we expected. The areas where we face risks include, among others, rights to indemnification for losses, regulatory, liquidity and capital requirements, loss of customers, distributors, suppliers and key personnel, diversion of management time and resources to acquisition integration challenges or growth strategies from maximizing business value, and inability to realize anticipated efficiencies. Our success in conducting business through joint ventures will depend on our ability to manage a variety of issues, including: (i) our exposure to additional operational, financial, legal or compliance risks as a result of entry into certain joint ventures; (ii) our dependence on a joint venture counterparty given limits on our ownership or distribution requirements, as well as for resources, including capital and product distribution, may reduce our control over, financial returns from, or the value of a joint venture; and (iii) our cooperation with joint venture counterparties, failure of a joint venture counterparty to meet its obligations, or an election to alter, modify or terminate the relationship may negatively impact our results of operations, thereby impairing our investment.

Reorganizing or consolidating the legal entities through which we conduct business may raise similar risks. Our success in realizing the benefits from legal entity reorganizations will also depend on our management of various issues, including regulatory approvals, modification of our operations and changes to our investment portfolios or derivatives hedging activities.

Any of these risks, if realized, could prevent us from achieving the benefits we expect or could otherwise harm our business, results of operations, or financial condition.

We Are Subject to Risks Related to Our Separation from and Continuing Relationship with Brighthouse

We may not realize any or all of the expected tax or other benefits of the Brighthouse separation, which may harm our business, results of operations, or financial condition. Brighthouse may not succeed, causing claims against us that may harm our business, results of operations or financial condition.

Governance Risks

MetLife, Inc.'s Board of Directors May Influence the Outcome of Stockholder Votes on Many Matters Due to the Voting Provisions of the MetLife Policyholder Trust

Our Board of Directors may be able to influence stockholder votes by virtue of the provisions of the MetLife Policyholder Trust and the number of shares of MetLife, Inc. common stock held by it. Trust beneficiary vote instructions are likely to have disproportionate weight on votes concerning certain fundamental corporate actions because the trustee will vote all of the shares of common stock held by the trust in proportion to those instructions actually received.

We may incur regulatory, mailing, or other costs related to the termination of the trust, distribution of the common stock held in trust to beneficiaries and the resulting increase in the number of shareholders. The increase to our shareholder base with full voting rights may affect the outcome of matters brought to a stockholder vote and other aspects of our corporate governance.

State Laws, Federal Laws, and MetLife, Inc.'s Certificate of Incorporation and By-Laws May Delay, Deter or Prevent Takeovers and Business Combinations that Stockholders Might Consider in Their Best Interests

State laws, federal laws and MetLife, Inc.'s certificate of incorporation and by-laws may delay, deter or prevent a takeover attempt that stockholders might consider favorable. These provisions may adversely affect the price of MetLife, Inc.'s common stock if they discourage takeover attempts.

Stockholders' changes to MetLife, Inc.'s corporate governance may make it more difficult for the Board of Directors to protect stockholders' interests.

Item 1B. Unresolved Staff Comments

MetLife has no unresolved comments from the SEC staff regarding its periodic or current reports under the Exchange Act.

Item 2. Properties

Not applicable.

Item 3. Legal Proceedings

See Note 21 of the Notes to the Consolidated Financial Statements.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Issuer Common Equity

MetLife, Inc.'s common stock, par value $0.01 per share, began trading on the New York Stock Exchange under the symbol "MET" on April 5, 2000.

At February 14, 2020, there were 73,548 stockholders of record of our common stock.

See Item 12 for information about our equity compensation plans.

Issuer Purchases of Equity Securities

Purchases of MetLife, Inc. common stock made by or on behalf of MetLife, Inc. or its affiliates during the quarter ended December 31, 2019 are set forth below:

Period	(a) Total Number of Shares Purchased (1)	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs (2)
October 1 - October 31, 2019	—	—	—	$1,235,343,798
November 1 - November 30, 2019	5,096,246	$49.06	5,096,246	$985,343,812
December 1 - December 31, 2019	4,049	$51.17	—	$985,343,812
Total	5,100,295		5,096,246	

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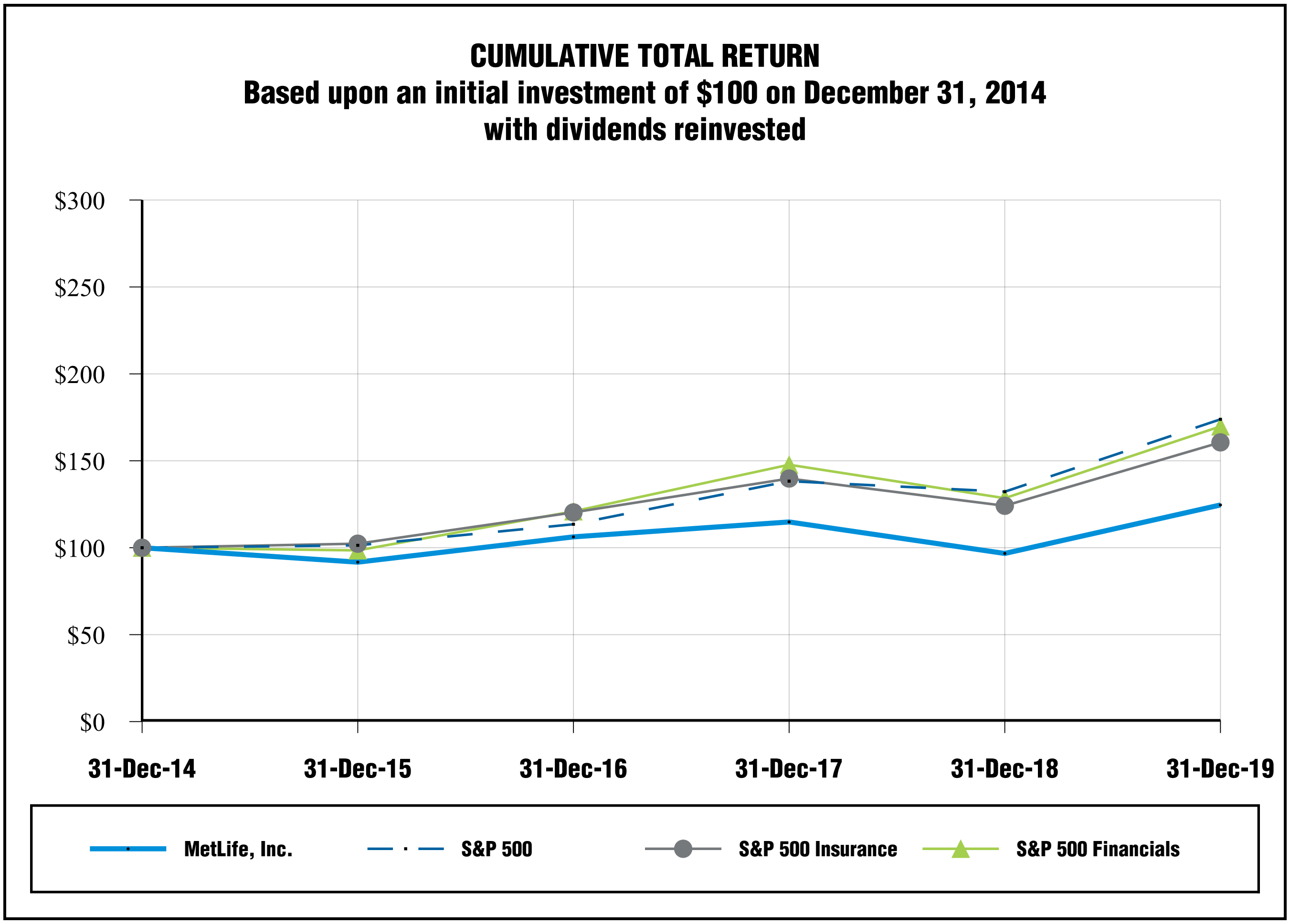
(1) Except for the foregoing, there were no shares of MetLife, Inc. common stock repurchased by MetLife, Inc. During the periods October 1 through October 31, 2019, November 1 through November 30, 2019 and December 1 through December 31, 2019, separate account index funds purchased 0 shares, 0 shares and 4,049 shares, respectively, of MetLife, Inc. common stock on the open market in non-discretionary transactions.

(2) In July 2019, MetLife, Inc. announced that its Board of Directors authorized $2.0 billion of common stock repurchases. At December 31, 2019, MetLife, Inc. had $985 million of common stock repurchases remaining under the authorization. For more information on common stock repurchases, see "Risk Factors — Capital Risks — Legal and Regulatory Restrictions May Prevent Us from Paying Dividends and Repurchasing Our Stock," "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Common Stock Repurchases" and Notes 16 and 23 of the Notes to the Consolidated Financial Statements.

Common Stock Performance Graph

The graph and table below compare the total return on our common shares with the total return on the S&P Global Ratings ("S&P") 500, S&P 500 Insurance, and S&P 500 Financials indices, respectively, for the five-year period ended on December 31, 2019. The graph and table show the total return on a hypothetical $100 investment in our common shares and in each index, respectively, on December 31, 2014, including the reinvestment of all dividends. The graph and table below shall not be deemed to be "soliciting material" or to be "filed," or to be incorporated by reference in future filings with the SEC, or to be subject to the liabilities of Section 18 of the Exchange Act, except to the extent that we specifically incorporate it by reference into a document filed under the Securities Act or the Exchange Act.



	As of December 31,					
	2014	2015	2016	2017	2018	2019
MetLife, Inc. common stock	$ 100.00	$ 91.70	$ 106.25	$ 114.82	$ 96.71	$ 124.60
S&P 500	100.00	101.38	113.51	138.29	132.23	173.86
S&P 500 Insurance	100.00	102.33	120.32	139.80	124.13	160.60
S&P 500 Financials	100.00	98.47	120.92	147.75	128.50	169.78

Item 6. Selected Financial Data

The following selected financial data has been derived from the Company's audited consolidated financial statements. The statement of operations data for the years ended December 31, 2019, 2018 and 2017, and the balance sheet data at December 31, 2019 and 2018 have been derived from the Company's audited consolidated financial statements included elsewhere herein. The statement of operations data for the years ended December 31, 2016 and 2015, and the balance sheet data at December 31, 2017, 2016 and 2015 have been derived from the Company's audited consolidated financial statements not included herein. The selected financial data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the audited consolidated financial statements and related notes included elsewhere herein.

	Years Ended December 31,				
	2019	2018	2017	2016	2015
			(In millions)		
Statement of Operations Data					
Revenues					
Premiums	$ 42,235	$ 43,840	$ 38,992	$ 37,202	$ 36,403
Universal life and investment-type product policy fees	5,603	5,502	5,510	5,483	5,570
Net investment income	18,868	16,166	17,363	16,790	16,205
Other revenues	1,842	1,880	1,341	1,685	1,927
Net investment gains (losses)	444	(298)	(308)	317	609
Net derivative gains (losses)	628	851	(590)	(690)	629
Total revenues	69,620	67,941	62,308	60,787	61,343
Expenses					
Policyholder benefits and claims	41,461	42,656	38,313	36,358	35,144
Interest credited to policyholder account balances	6,464	4,013	5,607	5,176	4,415
Policyholder dividends	1,211	1,251	1,231	1,223	1,356
Other expenses	13,689	13,714	13,621	13,749	14,777
Total expenses	62,825	61,634	58,772	56,506	55,692
Income (loss) from continuing operations before provision for income tax	6,795	6,307	3,536	4,281	5,651
Provision for income tax expense (benefit)	886	1,179	(1,470)	693	1,590
Income (loss) from continuing operations, net of income tax	5,909	5,128	5,006	3,588	4,061
Income (loss) from discontinued operations, net of income tax (1)	—	—	(986)	(2,734)	1,324
Net income (loss)	5,909	5,128	4,020	854	5,385
Less: Net income (loss) attributable to noncontrolling interests	10	5	10	4	12
Net income (loss) attributable to MetLife, Inc.	5,899	5,123	4,010	850	5,373
Less: Preferred stock dividends	178	141	103	103	116
Preferred stock repurchase premium	—	—	—	—	42
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 5,721	$ 4,982	$ 3,907	$ 747	$ 5,215

	Years Ended December 31,				
	2019	2018	2017	2016	2015
EPS Data					
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders per common share:					
Basic	$ 6.10	$ 4.95	$ 4.57	$ 3.16	$ 3.48
Diluted	$ 6.06	$ 4.91	$ 4.53	$ 3.13	$ 3.44
Income (loss) from discontinued operations, net of income tax, per common share (1):					
Basic	$ —	$ —	$ (0.92)	$ (2.48)	$ 1.19
Diluted	$ —	$ —	$ (0.91)	$ (2.46)	$ 1.18
Net income (loss) available to MetLife, Inc.'s common shareholders per common share:					
Basic	$ 6.10	$ 4.95	$ 3.65	$ 0.68	$ 4.67
Diluted	$ 6.06	$ 4.91	$ 3.62	$ 0.67	$ 4.62
Cash dividends declared per common share	$ 1.740	$ 1.660	$ 1.600	$ 1.575	$ 1.475

	December 31,				
	2019	2018	2017	2016	2015
			(In millions)		
Balance Sheet Data					
Assets of disposed subsidiary (1)	$ —	$ —	$ —	$ 216,983	$ 216,437
Separate account assets	$ 188,445	$ 175,556	$ 205,001	$ 195,578	$ 187,152
Total assets	$ 740,463	$ 687,538	$ 719,892	$ 898,764	$ 877,912
Policyholder liabilities and other policy-related balances (2)	$ 407,408	$ 388,107	$ 378,810	$ 355,151	$ 342,047
Short-term debt	$ 235	$ 268	$ 477	$ 242	$ 100
Long-term debt	$ 13,466	$ 12,829	$ 15,686	$ 16,441	$ 17,936
Collateral financing arrangement	$ 993	$ 1,060	$ 1,121	$ 1,274	$ 1,342
Junior subordinated debt securities	$ 3,150	$ 3,147	$ 3,144	$ 3,169	$ 3,194
Liabilities of disposed subsidiary (1)	$ —	$ —	$ —	$ 202,707	$ 204,314
Separate account liabilities	$ 188,445	$ 175,556	$ 205,001	$ 195,578	$ 187,152
Accumulated other comprehensive income (loss)	$ 13,052	$ 1,722	$ 7,427	$ 5,366	$ 4,767
Total MetLife, Inc.'s stockholders' equity	$ 66,144	$ 52,741	$ 58,676	$ 67,531	$ 68,098
Noncontrolling interests	$ 238	$ 217	$ 194	$ 171	$ 470

	Years Ended December 31,				
	2019	2018	2017	2016	2015
Other Data (3)					
Return on MetLife, Inc.'s common stockholders' equity	9.8%	9.6%	6.3%	1.0%	7.7%

(1) See Note 3 of the Notes to the Consolidated Financial Statements.

(2) Policyholder liabilities and other policy-related balances include future policy benefits, policyholder account balances, other policy-related balances, policyholder dividends payable and the policyholder dividend obligation.

(3) Return on MetLife, Inc.'s common stockholders' equity is defined as net income (loss) available to MetLife, Inc.'s common shareholders divided by MetLife, Inc.'s average common stockholders' equity.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Index to Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements and Other Financial Information

For purposes of this discussion, "MetLife," the "Company," "we," "our" and "us" refer to MetLife, Inc., a Delaware corporation incorporated in 1999, its subsidiaries and affiliates. This discussion should be read in conjunction with "Note Regarding Forward-Looking Statements," "Risk Factors," "Selected Financial Data," "Quantitative and Qualitative Disclosures About Market Risk" and the Company's consolidated financial statements included elsewhere herein.

This Management's Discussion and Analysis of Financial Condition and Results of Operations may contain or incorporate by reference information that includes or is based upon forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. See "Note Regarding Forward-Looking Statements" for cautionary language regarding forward-looking statements.

This Management's Discussion and Analysis of Financial Condition and Results of Operations includes references to our performance measures, adjusted earnings and adjusted earnings available to common shareholders, that are not based on GAAP. See "— Non-GAAP and Other Financial Disclosures" for definitions and a discussion of these and other financial measures, and "— Results of Operations" for reconciliations of historical non-GAAP financial measures to the most directly comparable GAAP measures.

For information relating to the Company's financial condition and results of operations as of and for the year ended December 31, 2017, as well as for the year ended December 31, 2018 compared with the year ended December 31, 2017, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" in MetLife, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018.

Executive Summary

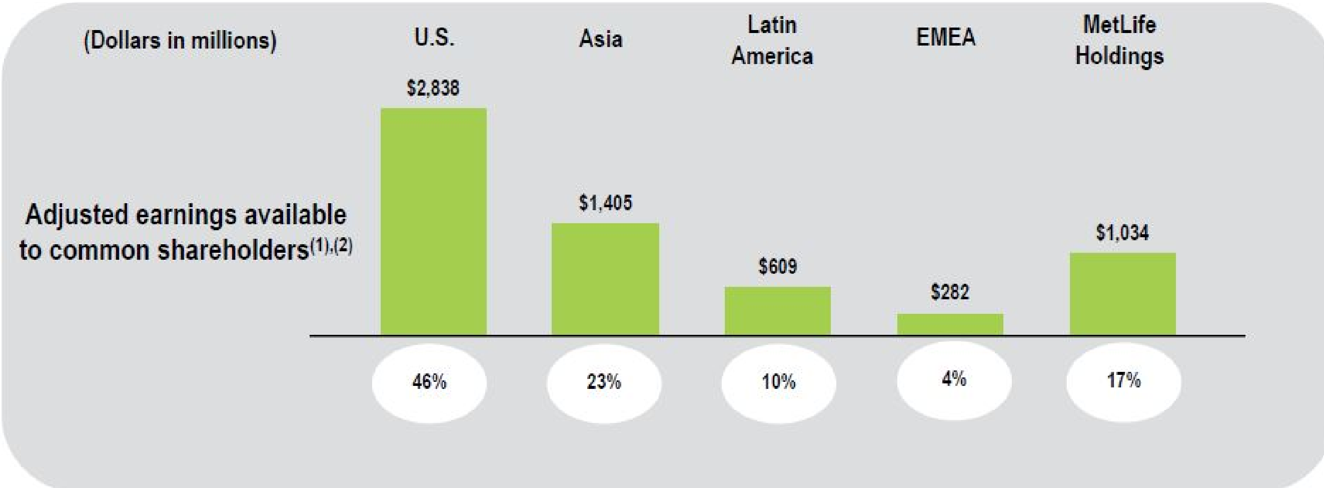
Overview

MetLife is one of the world's leading financial services companies, providing insurance, annuities, employee benefits and asset management. MetLife is organized into five segments: U.S.; Asia; Latin America; EMEA; and MetLife Holdings. In addition, the Company reports certain of its results of operations in Corporate & Other. See "Business — Segments and Corporate & Other" and Note 2 of the Notes to the Consolidated Financial Statements for further information on the Company's segments and Corporate & Other. Management continues to evaluate the Company's segment performance and allocated resources and may adjust related measurements in the future to better reflect segment profitability.

Current Year Highlights

During 2019, overall sales increased compared to 2018 as improved sales in our U.S. Group Benefits business, as well as in Latin America and EMEA, more than offset lower sales in Japan. Positive net flows drove an increase in our investment portfolio; however, investment yields declined and interest credited rates were higher. Underwriting experience was unfavorable compared to 2018 and results in both 2019 and 2018 included a charge due to the impact of our annual actuarial assumption review. In addition, our 2019 results benefited from certain tax settlements. A favorable change in net investment gains (losses) primarily reflects 2018 losses on the fair value option ("FVO") Brighthouse Financial, Inc. common stock ("FVO Brighthouse Common Stock") and higher gains on sales of fixed maturity securities. An unfavorable change in net derivative gains (losses) was primarily the result of changes in key equity index levels, partially offset by a decline in interest rates.

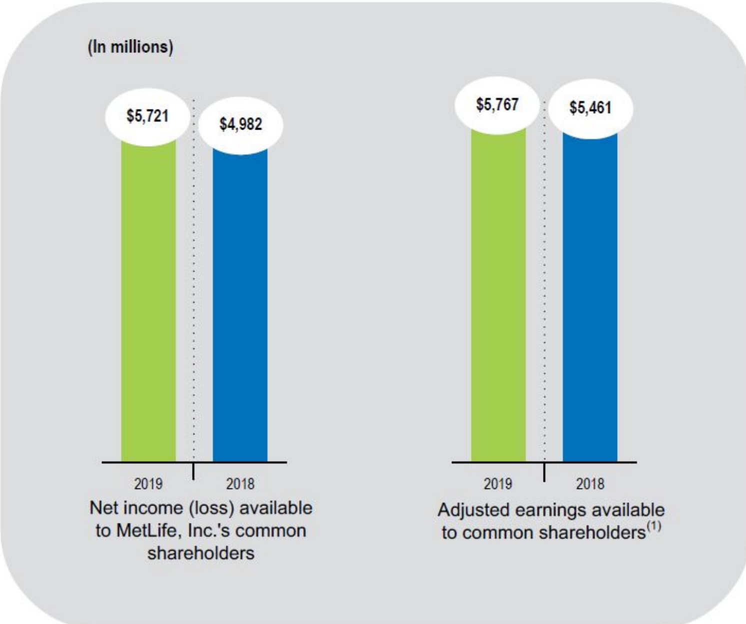
The following represents segment level results and percentage contributions to total segment level adjusted earnings available to common shareholders for the year ended December 31, 2019:



(1) Excludes Corporate & Other adjusted loss available to common shareholders of $401 million.

(2) Consistent with GAAP guidance for segment reporting, adjusted earnings is our GAAP measure of segment performance. For additional information, see Note 2 of the Notes to the Consolidated Financial Statements.

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018



Consolidated Results - Highlights

Net income (loss) available to MetLife, Inc.'s common shareholders up $739 million:

- Favorable change in net investment gains (losses) of $742 million ($586 million, net of income tax)
- Unfavorable change in net derivative gains (losses) of $223 million ($176 million, net of income tax)
- Adjusted earnings available to common shareholders up $306 million

(1) See "— Results of Operations — Consolidated Results" and "— Non-GAAP and Other Financial Disclosures" for reconciliations and definitions of non-GAAP financial measures.

Consolidated Results - Adjusted Earnings Highlights

Adjusted earnings available to common shareholders up $306 million:

- The primary drivers of the increase in adjusted earnings were benefits from certain tax settlements and higher net investment income due to growth in the investment portfolio, partially offset by higher interest credited expense, unfavorable underwriting and the impact of our annual actuarial assumption review.
- Our results for 2019 included the following:
  - unfavorable impact from our annual actuarial assumption review of $143 million, net of income tax
  - a $17 million, net of income tax, charge due to an increase in our incurred but not reported ("IBNR") long-term care reserves, reflecting enhancements to our methodology related to potential claims
  - expenses associated with our previously announced unit cost initiative of $332 million, net of income tax
  - a $317 million tax benefit related to the resolution of an uncertainty regarding the deemed repatriation transition tax enacted as a part of U.S. Tax Reform
  - a $222 million benefit from the IRS audit settlement related to the tax treatment of a wholly-owned U.K. investment subsidiary of MLIC, which was comprised of a $158 million tax benefit and a $64 million interest benefit
- Our results for 2018 included the following:
  - a $349 million benefit from the IRS audit settlement related to the tax treatment of a wholly-owned U.K. investment subsidiary of MLIC, which was comprised of a $168 million tax benefit and a $181 million interest benefit
  - favorable reserve adjustment of $62 million, net of income tax, relating to certain variable annuity guarantees assumed from a former joint venture in Japan
  - a $37 million, net of income tax, favorable net insurance adjustment resulting from reserve and DAC modeling improvements in our individual disability insurance business
  - expenses associated with our previously announced unit cost initiative of $284 million, net of income tax
  - a $63 million, net of income tax, charge due to an increase in our IBNR life reserves, reflecting enhancements to our processes related to potential claims
  - a $60 million, net of income tax, increase in litigation reserves
  - unfavorable impact from our annual actuarial assumption review of $42 million, net of income tax

For a more in-depth discussion of our consolidated results, see "— Results of Operations — Consolidated Results," "— Results of Operations — Consolidated Results — Adjusted Earnings" and "— Results of Operations — Segment Results and Corporate & Other."

Consolidated Company Outlook

At the December 2019 Investor Day, we introduced our Next Horizon Strategy which is founded on three pillars: (i) "Focus" — generate strong free cash flow by deploying capital and resources to the highest value opportunities, (ii) "Simplify" — simplify our business to deliver operational efficiency and an outstanding customer experience, and (iii) "Differentiate" — drive competitive advantage through our brand, scale, talent, and innovation. The pillars of our Next Horizon Strategy are the basis of our ability to create and deliver optimal shareholder value.

We continue to shift our business mix to protection-oriented and fee-based businesses. As a result, we expect our results to be less sensitive to interest rates. Assuming interest rates follow the observable forward yield curves, as of the year ended December 31, 2019, we expect the ratio of free cash flow to adjusted earnings over the two-year period of 2020 and 2021 to be 65% to 75%, assuming a 10-year U.S. Treasury rate between 1.5% and 4.5%. We believe that free cash flow is a key determinant of common stock dividends and common stock repurchases. We have returned approximately $16.0 billion to shareholders from 2016 through 2019 and we expect to generate approximately $20.0 billion in free cash flow over the next five years, while maintaining a $3.0 billion to $4.0 billion buffer of liquid assets at the holding companies.

Despite the prolonged low interest rate environment, we continue to project adjusted return on equity, excluding accumulated other comprehensive income ("AOCI") other than foreign currency translation adjustments ("FCTA"), of 12% to 14% over the near-term. This target reflects the completion of restructuring charges related to our unit cost improvement program in 2019 which we project will result in approximately $900 million of pre-tax expense margin expansion in 2020. We expect to maintain this margin by holding to a 12.3% direct expense ratio in 2020, excluding total notable items related to direct expenses and pension risk transfers, while creating additional capacity to fund over $1.0 billion in incremental technology and innovation investments to accelerate our growth over the next five years.

When making these and other projections, we must rely on the accuracy of our assumptions about future economic and business conditions, which can be affected by known and unknown risks and other uncertainties. Additional guidance from the U.S. Treasury, SEC or the FASB may require us to revise these projections in future periods.

Other Key Information

Argentina Highly Inflationary

The inflation levels in Argentina have been elevated for several years. In the first half of 2018, Argentina's reported inflation rates began to increase dramatically and the Argentine central bank significantly increased interest rates in an effort to combat inflation. Based on Argentina's reported inflation rates and trends, as of July 1, 2018, we designated Argentina as a highly inflationary economy for accounting purposes. The application of highly inflationary accounting did not have a material impact on the Company's consolidated financial statements for the years ended December 31, 2019 and 2018.

Industry Trends

We continue to be impacted by the changing global financial and economic environment that has been affecting the industry.

Financial and Economic Environment

Our business and results of operations are materially affected by conditions in the global capital markets and the economy generally. Stressed conditions, volatility and disruptions in global capital markets, particular markets, or financial asset classes can have an adverse effect on us, in part because we have a large investment portfolio and our insurance liabilities and derivatives are sensitive to changing market factors. See "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition."

We have market presence in numerous countries and, therefore, our business operations are exposed to risks posed by local and regional economic conditions. For example, MetLife is the largest provider of benefits to Mexican federal government personnel and public officials, however, the administration of President López Obrador of Mexico is implementing an austerity plan which, among other measures, has eliminated benefits such as major medical insurance and contributions to additional savings benefit insurance for such individuals. See "Business — Regulation — Fiscal Measures" and "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition — Currency Exchange Rate Risk."

We are closely monitoring political and economic conditions that might contribute to global market volatility and impact our business operations, investment portfolio and derivatives. For example, events following the U.K. referendum on June 23, 2016 and the uncertainties, including foreign currency exchange risks, associated with its withdrawal from the EU have contributed to global market volatility. These factors could contribute to weakening Gross Domestic Product growth, primarily in the U.K. and, to a lesser degree, in continental Europe and beyond. The magnitude and longevity of the potential negative economic impacts would depend on the detailed agreements reached by the U.K. and the EU as a result of the negotiations regarding future trade and other arrangements. See "— Investments — Current Environment — Selected Country and Sector Investments." We are also monitoring the imposition of tariffs or other barriers to international trade, changes to international trade agreements, and their potential impacts on our business, results of operations and financial condition. In addition, the possibility of government shutdowns or a failure to raise the debt ceiling, due to a policy impasse or otherwise, could adversely impact our business and liquidity. See "Business — Regulation — Cross-Border Trade" and "Business — Regulation — Fiscal Measures." See also "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition" and "Risk Factors — Business Risks — The Global Nature of Our Operations Exposes Us to a Variety of Political, Legal, Operational, Economic and Other Risks."

Central banks around the world are using monetary policy to address regional economic conditions. In the United States, the Federal Reserve Board which had been tightening monetary policy by raising the federal funds rate and shrinking the balance sheet, now has lowered rates to sustain the economic expansion and has begun to expand its balance sheet once again to reduce liquidity issues in financing markets. The European Central Bank has resumed quantitative easing for as long as necessary and left its deposit interest rate unchanged at its historic low. In Japan, the Japanese government and the Bank of Japan are maintaining stimulus measures in order to boost inflation expectations and achieve sustainable economic growth in Japan. Such measures include the imposition of a negative rate on commercial bank deposits, continued government bond purchases and tax reform, including the lowering of the Japanese corporate tax rate. Going forward, Japan's structural and demographic challenges may continue to limit its potential growth unless reforms that boost productivity are put into place. Japan's high public sector debt levels are mitigated by low refinancing risks. Further actions by central banks in the future may affect interest rates and risk markets in the U.S., Europe, Japan and other developed and emerging economies, and may ultimately result in market volatility. We cannot predict with certainty the effect of these actions or the impact on our business operations, investment portfolio or derivatives. See "— Investments — Current Environment."

Impact of a Sustained Low Interest Rate Environment

Market interest rates are a key driver of our results. Sustained periods of low U.S. interest rates, may cause us to:

- Reduce the difference between interest credited to policyholders and interest earned on supporting assets ("gross margin");
- Reinvest investment proceeds in lower yielding assets and experience higher frequency prepayment or redemption of assets in our portfolio;
- Increase our reserves or trigger loss recognition events related to policy liabilities, accelerate amortization of DAC and VOBA, and potentially impair intangible assets;
- Reduce interest expense, change pension and other post-retirement benefit calculations, and change derivative cash flows and market values;
- Change our product offerings, design features, crediting rates and sales mix; and
- Experience changing policyholder behavior, including surrender or withdrawal activity.

For additional discussion on gross margin and interest rate assumptions, as well as the potential impact of low interest rates, see "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition — Interest Rate Risk;" "Risk Factors — Business Risks — We May Be Required to Accelerate the Amortization of or Impair DAC, DSI or VOBA;" "Risk Factors — Business Risks — We May Be Required to Recognize an Impairment of Our Goodwill or Other Long-Lived Assets or to Establish a Valuation Allowance Against Our Deferred Income Tax Assets;" "Risk Factors — Business Risks — Guarantees Within Certain Products May Decrease Our Earnings, Increase the Volatility of Our Results, Result in Higher Risk Management Costs and Expose Us to Increased Counterparty Risk;" and "— Results of Operations — Consolidated Results — Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018 — Actuarial Assumption Review and Certain Other Insurance Adjustments."

Mitigating Actions

To mitigate unfavorable impacts of a low U.S. interest rate environment, we maintain diversification across products, distribution channels, and geographies while proactively evaluating interest rate and product strategies. In addition, we apply disciplined asset/liability management ("ALM") strategies, including the use of derivatives, and may take management actions such as:

- Lowering interest crediting rates or adjusting the dividend scale on products;
- Limiting or closing certain products to new sales to manage exposures; and
- Shifting sales focus to less interest rate sensitive products.

Our ability to take such actions may be limited by competition, regulatory approval requirements, or minimum crediting rate guarantees and may not match the timing or magnitude of interest rate changes.

In addition to proactive mitigation strategies, businesses within our Latin America, EMEA, and Asia (exclusive of our Japan business) segments help mitigate unfavorable impacts to our consolidated results given their limited U.S. interest rate sensitivity.

As a result of the foregoing, we expect adjusted earnings will continue to increase over the near term despite the sustained low U.S. interest rate environment.

For additional discussion on interest rate risk management and our ability to change interest crediting rates or dividend scales, see "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition — Interest Rate Risk;" "Management's Discussion and Analysis of Financial Condition and Results of Operations — Policyholder Liabilities;" and "Quantitative and Qualitative Disclosures About Market Risk — Management of Market Risk Exposures."

Low Interest Rate Scenario

To illustrate our sensitivity to lower U.S. interest rates, we compared the outcome of a hypothetical low interest rate environment (the "Low Interest Rate Scenario") relative to the economic assumptions used for our insurance contracts (the "Base Scenario") through 2022.

The Low Interest Rate Scenario assumes an immediate decline of U.S. interest rates for all maturities to 1.00% on January 1, 2020 and subsequent 10 basis point increases for maturities one year and longer on January 1, 2021 and January 1, 2022. Other than changing U.S. interest rates through 2022, all other economic assumptions are equivalent in the Low Interest Rate Scenario and Base Scenario.

The following table compares the most relevant short-term and long-term interest rate assumptions for the dates indicated:

	Years Ended December 31,					
	2020		2021		2022	
	Low Interest Rate Scenario	Base Scenario	Low Interest Rate Scenario	Base Scenario	Low Interest Rate Scenario	Base Scenario
Three-month LIBOR	1.00%	1.61%	1.00%	1.65%	1.00%	1.72%
10-year U.S. Treasury	1.00%	2.04%	1.10%	2.15%	1.20%	2.25%

Hypothetical Impact to Net Derivative Gains (Losses) and Adjusted Earnings

We estimate a net favorable impact to net derivative gains (losses) from non-VA program derivatives through 2022. We hold significant positions in long-duration receive-fixed U.S. interest rate swaps, which are most sensitive to the 10-year and 30-year swap rates, to hedge reinvestment risk. For purposes of the Low Interest Rate Scenario, we have excluded all VA program derivatives. For information regarding our VA and non-VA program derivatives, see "— Results of Operations — Consolidated Results."

We estimate a net unfavorable impact to consolidated adjusted earnings through 2022. The negative impact of reinvesting cash flows in lower yielding assets is partially offset by lowering interest crediting rates and dividend scales on products, and additional derivative income.

The following table summarizes the hypothetical impact on net derivative gains (losses) and the adjusted earnings for certain segments, as well as Corporate & Other for the dates indicated:

	Years Ended December 31,		
	2020	**2021**	**2022**
	(In millions)		
Net Derivative Gains (Losses):			
Non-VA Program Derivatives	$ 2,620	$ (170)	$ (125)
Adjusted Earnings:			
U.S.	$ —	$ (15)	$ (50)
Group Benefits	—	—	(15)
Retirement and Income Solutions	—	(10)	(25)
Property & Casualty	—	(5)	(10)
Asia (Japan only)	—	(15)	(40)
MetLife Holdings	—	(65)	(110)
Corporate & Other	(15)	35	—
Total Adjusted Earnings Impact	$ (15)	$ (60)	$ (200)

Segments and Corporate & Other

The primary drivers of the Low Interest Rate Scenario impacting our segments, as well as Corporate & Other, are summarized below. Our Latin America, EMEA, and Asia (exclusive of our Japan business) segments are excluded given their limited U.S. interest rate sensitivity.

For additional information regarding account values subject to minimum crediting rate guarantees, the maturity profile of fixed maturity securities available-for-sale ("AFS"), and the yield on invested assets, see "— Investments;" "— Policyholder Liabilities — Policyholder Account Balances;" and Note 8 of the Notes to the Consolidated Financial Statements.

U.S.

Group Benefits

Our group life insurance products are primarily renewable term policies. This provides repricing flexibility to mitigate the negative impact of reinvesting in lower yielding assets.

Our retained asset accounts experience gross margin compression due to minimum crediting rate guarantees. Less than half of these accounts are at their minimum crediting rates. Additionally, we experience gross margin compression from our disability policy claim reserves for which crediting rates cannot be reduced. We use interest rate derivatives to mitigate risk for both products.

Gross margin compression is limited for our group disability products, which are generally renewable term policies allowing for crediting rate adjustments at renewal based on the retrospective experience rating and current interest rate assumptions.

Retirement and Income Solutions

This business contains both short and long-duration products consisting of capital market products, pension risk transfers, structured settlements, and other benefit funding products. Based on our investment portfolios and expected cash flows, only a small portion of invested assets are subject to reinvestment risk through 2022.

A significant portion of short-duration products are managed on a floating rate basis, which mitigates gross margin compression. The Low Interest Rate Scenario does not assume any additional ALM actions we may take in our capital markets business.

Our long-duration products have very predictable cash flows and we use both interest rate derivatives and asset/ liability duration matching to mitigate gross margin compression. These mitigating strategies partially offset the negative impact of reinvesting in lower yielding assets.

Property & Casualty

Our products primarily consist of six-month and annual term renewable policies and do not have policyholder benefits linked to interest rates. This provides significant re-pricing flexibility to mitigate the negative impact of reinvesting in lower yielding assets.

Asia

Our Japan business offers traditional life insurance and accident & health products, many of which are U.S. dollar denominated. We experience gross margin compression to the extent our investment portfolios are U.S. interest rate sensitive and we are unable to offset the impact by lowering interest crediting rates. Additionally, we manage interest rate risk on our life products through a combination of product design features and ALM strategies.

Our Japan business also offers U.S. dollar denominated annuities which are predominantly single premium products with crediting rates set upon issuance. This allows for tightly managing product ALM, cash flows and net spreads, which mitigates interest rate risk.

For purposes of the Low Interest Rate Scenario, we have excluded businesses outside of Japan given their insignificant U.S. interest rate sensitivity.

MetLife Holdings

Our interest rate sensitive life products include traditional and universal life products. Since most of our traditional life insurance is participating, we can mitigate gross margin compression by adjusting the applicable dividend scale. For our universal life products, we manage interest rate risk through a combination of product design features and ALM strategies, including the use of interest rate derivatives. Although we are able mitigate gross margin compression by lowering interest crediting rates on certain in-force universal life policies, these actions may be partially offset by increased liabilities for policies with secondary guarantees.

Our annuity products experience gross margin compression primarily from deferred annuities with minimum crediting rate guarantees. Most of these contracts are at their minimum crediting rate, and, therefore we use interest rate derivatives to partially mitigate gross margin compression.

Our long-term care business experiences gross margin compression as we cannot reduce interest crediting rates for established claim reserves. Long-term care policies are guaranteed renewable, and rates may be adjusted on a class basis with regulatory approval to reflect emerging experience. We review the discount rate assumptions and other assumptions associated with our long-term care claim reserves no less frequently than annually and, with respect to interest rates, set the discount rate based on the prevailing interest rate environment.

Our retained asset accounts experience gross margin compression due to minimum crediting rate guarantees. Most of these accounts are at their minimum crediting rates and therefore we use interest rate derivatives to mitigate gross margin compression.

Based on our investment portfolios and cash flow estimates, approximately 7% of our invested assets each year are subject to reinvestment risk through 2022.

Corporate & Other

Corporate & Other contains the surplus investment portfolios used to fund capital and liquidity needs, certain reinsurance agreements, collateral financing arrangements, and our outstanding debt and preferred securities. Under the Low Interest Rate Scenario, the negative impact of reinvesting in lower yielding assets is partially offset by the positive impact of lower interest expense on collateral financing and variable rate debt.

For purposes of the Low Interest Rate Scenario, the preferred stock dividend impact is excluded and the impact on pension and postretirement plan expenses is included within Corporate & Other and not allocated across segments. Under the Low Interest Rate Scenario, the pension and other postretirement benefit liabilities increase, however, the impact is offset by corresponding returns on the fixed income plan assets resulting in lower expenses.

Competitive Pressures

The life insurance industry remains highly competitive. See "Business — Competition." Product development is focused on differentiation leading to more intense competition with respect to product features and services. Several of the industry's products can be quite homogeneous and subject to intense price competition. Cost reduction efforts are a priority for industry players, with benefits resulting in price adjustments to favor customers and reinvestment capacity. Larger companies have the ability to invest in brand equity, product development, technology optimization, risk management, and innovation, which are among the fundamentals for sustained profitable growth in the life insurance industry. Insurers are focused on their core businesses, specifically in markets where they can achieve scale. Insurers are increasingly seeking alternative sources of revenue; there is a focus on monetization of assets, fee-based services, and opportunities to offer comprehensive solutions, which include providing value-added services along with traditional products. Financial strength and flexibility and technology modernization are prerequisites for sustainable growth in the life insurance industry. Larger market participants tend to have the capacity to invest in analytics, distribution, and information technology and have the capability to engage with the new digital entrants. There is a shift in distribution from proprietary to third party models in mature markets, due to the lower cost structure. Evolving customer expectations are having a significant impact on the competitive environment as insurers strive to offer the superior customer service demanded by an increasingly sophisticated industry client base. We believe that the continued volatility of the financial markets and its impact on the capital position of many competitors will continue to strain the competitive environment. Legislative and other changes affecting the regulatory environment can also affect the competitive environment within the life insurance industry and within the broader financial services industry. See "Business — Regulation." We believe that the aforementioned factors have highlighted financial strength, technology efficiency, and organizational agility as the most significant differentiators and, as a result, we believe the Company is well positioned to compete in this environment.

Regulatory Developments

In the United States, our life insurance companies are regulated primarily at the state level, with some products and services also subject to federal regulation. As life insurers introduce new and often more complex products, regulators refine capital requirements and introduce new reserving standards for the life insurance industry. Regulations recently adopted or currently under review can potentially impact the statutory reserve and capital requirements of the industry. See "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition." Regulators have also undertaken market and sales practices reviews of several markets or products, including equity-indexed annuities, variable annuities and group products and, in some states, instituted a moratorium on new reserve financing transactions. See "Business — Regulation," "Risk Factors — Economic Environment and Capital Markets Risks — Our Statutory Life Insurance Reserve Financings May Be Subject to Cost Increases, and New Financings May Be Subject to Limited Market Capacity," "Risk Factors — Regulatory and Legal Risks — Our Businesses Are Highly Regulated, and Changes in Laws, Regulation and in Supervisory and Enforcement Policies May Reduce Our Profitability, Limit Our Growth, or Otherwise Adversely Affect Our Business, Results of Operations and Financial Condition" and "— Liquidity and Capital Resources — The Company — Capital — Affiliated Captive Reinsurance Transactions."

Summary of Critical Accounting Estimates

The preparation of financial statements in conformity with GAAP requires management to adopt accounting policies and make estimates and assumptions that affect amounts reported on the Consolidated Financial Statements. For a discussion of our significant accounting policies, see Note 1 of the Notes to the Consolidated Financial Statements. The most critical estimates include those used in determining:

(i) liabilities for future policy benefits and the accounting for reinsurance;

(ii) capitalization and amortization of DAC and the establishment and amortization of VOBA;

(iii) estimated fair values of investments in the absence of quoted market values;

(iv) investment impairments;

(v) estimated fair values of freestanding derivatives and the recognition and estimated fair value of embedded derivatives requiring bifurcation;

(vi) measurement of goodwill and related impairment;

(vii) measurement of employee benefit plan liabilities;

(viii) measurement of income taxes and the valuation of deferred tax assets; and

(ix) liabilities for litigation and regulatory matters.

In addition, the application of acquisition accounting requires the use of estimation techniques in determining the estimated fair values of assets acquired and liabilities assumed — the most significant of which relate to the aforementioned critical accounting estimates. In applying these policies and estimates, management makes subjective and complex judgments that frequently require assumptions about matters that are inherently uncertain. Many of these policies, estimates and related judgments are common in the insurance and financial services industries; others are specific to our business and operations. Actual results could differ from these estimates.

Liability for Future Policy Benefits

Generally, future policy benefits are payable over an extended period of time and related liabilities are calculated as the present value of future expected benefits to be paid, reduced by the present value of future expected premiums. Such liabilities are established based on methods and underlying assumptions in accordance with GAAP and applicable actuarial standards. Principal assumptions used in the establishment of liabilities for future policy benefits are mortality, morbidity, policy lapse, renewal, retirement, disability incidence, disability terminations, investment returns, inflation, expenses and other contingent events as appropriate to the respective product type and geographical area. These assumptions are established at the time the policy is issued and are intended to estimate the experience for the period the policy benefits are payable. Utilizing these assumptions, liabilities are established on a block of business basis. If experience is less favorable than assumed, additional liabilities may be established, resulting in a charge to policyholder benefits and claims.

Future policy benefit liabilities for disabled lives are estimated using the present value of benefits method and experience assumptions as to claim terminations, expenses and interest.

Liabilities for unpaid claims are estimated based upon our historical experience and other actuarial assumptions that consider the effects of current developments, anticipated trends and risk management programs, reduced for anticipated salvage and subrogation.

Future policy benefit liabilities for minimum death and income benefit guarantees relating to certain annuity contracts are based on estimates of the expected value of benefits in excess of the projected account balance, recognizing the excess ratably over the accumulation period based on total expected assessments. Liabilities for ULSG and paid-up guarantees are determined by estimating the expected value of death benefits payable when the account balance is projected to be zero and recognizing those benefits ratably over the accumulation period based on total expected assessments. The assumptions used in estimating the secondary and paid-up guarantee liabilities are consistent with those used for amortizing DAC, and are thus subject to the same variability and risk. The assumptions of investment performance and volatility for variable products are consistent with historical experience of the appropriate underlying equity index, such as the S&P 500 Index.

We regularly review our estimates of liabilities for future policy benefits and compare them with our actual experience. Differences between actual experience and the assumptions used in pricing these policies and guarantees, as well as in the establishment of the related liabilities, result in variances in profit and could result in losses.

See Note 4 of the Notes to the Consolidated Financial Statements for additional information on our liability for future policy benefits.

Reinsurance

Accounting for reinsurance requires extensive use of assumptions and estimates, particularly related to the future performance of the underlying business and the potential impact of counterparty credit risks. We periodically review actual and anticipated experience compared to the aforementioned assumptions used to establish assets and liabilities relating to ceded and assumed reinsurance and evaluate the financial strength of counterparties to our reinsurance agreements using criteria similar to that evaluated in our security impairment process. See "— Investment Impairments." Additionally, for each of our reinsurance agreements, we determine whether the agreement provides indemnification against loss or liability relating to insurance risk, in accordance with applicable accounting standards. We review all contractual features, including those that may limit the amount of insurance risk to which the reinsurer is subject or features that delay the timely reimbursement of claims. If we determine that a reinsurance agreement does not expose the reinsurer to a reasonable possibility of a significant loss from insurance risk, we record the agreement using the deposit method of accounting.

See Note 6 of the Notes to the Consolidated Financial Statements for additional information on our reinsurance programs.

Deferred Policy Acquisition Costs and Value of Business Acquired

We incur significant costs in connection with acquiring new and renewal insurance business. Costs that relate directly to the successful acquisition or renewal of insurance contracts are capitalized as DAC. In addition to commissions, certain direct-response advertising expenses and other direct costs, deferrable costs include the portion of an employee's total compensation and benefits related to time spent selling, underwriting or processing the issuance of new and renewal insurance business only with respect to actual policies acquired or renewed. We utilize various techniques to estimate the portion of an employee's time spent on qualifying acquisition activities that result in actual sales, including surveys, interviews, representative time studies and other methods. These estimates include assumptions that are reviewed and updated on a periodic basis to reflect significant changes in processes or distribution methods.

VOBA represents the excess of book value over the estimated fair value of acquired insurance, annuity, and investment-type contracts in force at the acquisition date. For certain acquired blocks of business, the estimated fair value of the in-force contract obligations exceeded the book value of assumed in-force insurance policy liabilities, resulting in negative VOBA, which is presented separately from VOBA as an additional insurance liability included in other policy-related balances. The estimated fair value of the acquired obligations is based on projections, by each block of business, of future policy and contract charges, premiums, mortality and morbidity, separate account performance, surrenders, expenses, investment returns, nonperformance risk adjustment and other factors. Actual experience on the purchased business may vary from these projections. The recovery of DAC and VOBA is dependent upon the future profitability of the related business.

Separate account rates of return on variable universal life contracts and variable deferred annuity contracts affect in-force account balances on such contracts each reporting period, which can result in significant fluctuations in amortization of DAC and VOBA. Our practice to determine the impact of gross profits resulting from returns on separate accounts assumes that long-term appreciation in equity markets is not changed by short-term market fluctuations, but is only changed when sustained interim deviations are expected. We monitor these events and only change the assumption when our long-term expectation changes. The effect of an increase (decrease) by 100 basis points in the assumed future rate of return is reasonably likely to result in a decrease (increase) in the DAC and VOBA amortization with an offset to our unearned revenue liability which nets to approximately $30 million. We use a mean reversion approach to separate account returns where the mean reversion period is five years with a long-term separate account return after the five-year reversion period is over. The current long-term rate of return assumption for the variable universal life contracts and variable deferred annuity contracts is 6.75%.

We periodically review long-term assumptions underlying the projections of estimated gross margins and profits. These assumptions primarily relate to investment returns, policyholder dividend scales, interest crediting rates, mortality, persistency, and expenses to administer business. Assumptions used in the calculation of estimated gross margins and profits which may have significantly changed are updated annually. If the update of assumptions causes expected future gross margins and profits to increase, DAC and VOBA amortization will decrease, resulting in a current period increase to earnings. The opposite result occurs when the assumption update causes expected future gross margins and profits to decrease.

Our most significant assumption updates resulting in a change to expected future gross margins and profits and the amortization of DAC and VOBA are due to revisions to expected future investment returns, expenses, in-force or persistency assumptions and policyholder dividends on participating traditional life contracts, variable and universal life contracts and annuity contracts. We expect these assumptions to be the ones most reasonably likely to cause significant changes in the future. Changes in these assumptions can be offsetting and we are unable to predict their movement or offsetting impact over time.

At December 31, 2019 and 2018, DAC and VOBA for the Company was $17.8 billion and $18.9 billion, respectively. Amortization of DAC and VOBA associated with the variable and universal life and annuity contracts was significantly impacted by movements in equity markets. The following illustrates the effect on DAC and VOBA of changing each of the respective assumptions, as well as updating estimated gross margins or profits with actual gross margins or profits during the years ended December 31, 2019 and 2018. Increases (decreases) in DAC and VOBA balances, as presented below, resulted in a corresponding decrease (increase) in amortization.

	Years Ended December 31,	
	2019	2018
	(In millions)	
General account investment return	$ (116)	$ 22
Separate account investment return	31	(42)
Net investment/Net derivative gains (losses) and GMIB	(106)	(215)
In-force/Persistency	39	26
Policyholder dividends, expense and other	(81)	—
Total	$ (233)	$ (209)

Significant items contributing to the changes to DAC and VOBA amortization in 2019 consisted of the following:

- Net increase in amortization of $106 million associated with net investment/net derivative gains (losses) and GMIB, primarily driven by the following:
  - An increase in amortization of $25 million from net derivative gains from freestanding derivatives hedging the variable annuity guarantees, partially offset by a decrease in amortization of approximately $10 million from net derivative losses resulting from the increases in variable annuity guarantee obligations.
  - A decrease in amortization of approximately $10 million associated with gains from GMIB hedges and the decreases in GMIB obligations.
  - Net increase in amortization of approximately $100 million from other investment activities.
- Net increase in general account investment return mostly due to net investment income assumption unlocking and an update to the yield curve for market value adjustment.

Significant items contributing to the changes to DAC and VOBA amortization in 2018 consisted of the following:

- Net increase in amortization of $215 million associated with net investment/net derivative gains (losses) and GMIB, primarily driven by the following:
  - An increase in amortization of $90 million from net derivative gains from freestanding derivatives hedging the variable annuity guarantees, partially offset by a decrease in amortization of approximately $30 million from net derivative losses resulting from the increases in variable annuity guarantee obligations.
  - An increase in amortization of approximately $35 million associated with gains from GMIB hedges and the decreases in GMIB obligations.
  - Net increase in amortization of approximately $100 million from the annual actuarial assumption review and other investment activities.

Our DAC and VOBA balance is also impacted by unrealized investment gains (losses) and the amount of amortization which would have been recognized if such gains and losses had been realized. The increase in unrealized investment gains (losses) decreased the DAC and VOBA balance by $1.5 billion in 2019. The decrease in unrealized investment gains (losses) increased the DAC and VOBA balance by $521 million in 2018. See Notes 5 and 8 of the Notes to the Consolidated Financial Statements for information regarding the DAC and VOBA offset to unrealized investment gains (losses).

Estimated Fair Value of Investments

In determining the estimated fair value of our investments, fair values are based on unadjusted quoted prices for identical investments in active markets that are readily and regularly obtainable. When such unadjusted quoted prices are not available, estimated fair values are based on quoted prices in markets that are not active, quoted prices for similar but not identical investments, or other observable inputs. If these inputs are not available, or observable inputs are not determinable, unobservable inputs and/or adjustments to observable inputs requiring management judgment are used to determine the estimated fair value of investments.

The methodologies, assumptions and inputs utilized are described in Note 10 of the Notes to the Consolidated Financial Statements.

Financial markets are susceptible to severe events evidenced by rapid depreciation in asset values accompanied by a reduction in asset liquidity. Our ability to sell investments, or the price ultimately realized for investments, depends upon the demand and liquidity in the market and increases the use of judgment in determining the estimated fair value of certain investments.

Investment Impairments

One of the significant estimates related to fixed maturity securities AFS is our impairment evaluation. The assessment of whether an other-than-temporary impairment ("OTTI") occurred is based on our case-by-case evaluation of the underlying reasons for the decline in estimated fair value on a security-by-security basis. Our review of each security for OTTI includes an analysis of gross unrealized losses by three categories of severity and/or age of gross unrealized loss. An extended and severe unrealized loss position on a security may not have any impact on the ability of the issuer to service all scheduled interest and principal payments. Accordingly, such an unrealized loss position may not impact our evaluation of recoverability of all contractual cash flows or the ability to recover an amount at least equal to its amortized cost based on the present value of the expected future cash flows to be collected.

Additionally, we consider a wide range of factors about the security issuer and use our best judgment in evaluating the cause of the decline in the estimated fair value of the security and in assessing the prospects for near-term recovery. Inherent in our evaluation of the security are assumptions and estimates about the operations of the issuer and its future earnings potential. Factors we consider in the OTTI evaluation process are described in Note 8 of the Notes to the Consolidated Financial Statements.

The determination of the amount of allowances and impairments on the remaining invested asset classes is highly subjective and is based upon our periodic evaluation and assessment of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available.

See Notes 1 and 8 of the Notes to the Consolidated Financial Statements for additional information relating to our determination of the amount of allowances and impairments.

Derivatives

The determination of the estimated fair value of freestanding derivatives, when quoted market values are not available, is based on market standard valuation methodologies and inputs that management believes are consistent with what other market participants would use when pricing the instruments. Derivative valuations can be affected by changes in interest rates, foreign currency exchange rates, financial indices, credit spreads, default risk, nonperformance risk, volatility, liquidity and changes in estimates and assumptions used in the pricing models. See Note 10 of the Notes to the Consolidated Financial Statements for additional details on significant inputs into the OTC derivative pricing models and credit risk adjustment.

We issue variable annuity products with guaranteed minimum benefits, some of which are embedded derivatives measured at estimated fair value separately from the host variable annuity product, with changes in estimated fair value reported in net derivative gains (losses). The estimated fair values of these embedded derivatives are determined based on the present value of projected future benefits minus the present value of projected future fees. The projections of future benefits and future fees require capital market and actuarial assumptions, including expectations concerning policyholder behavior. A risk neutral valuation methodology is used under which the cash flows from the guarantees are projected under multiple capital market scenarios using observable risk-free rates. The valuation of these embedded derivatives also includes an adjustment for our nonperformance risk and risk margins for non-capital market inputs. The nonperformance risk adjustment, which is captured as a spread over the risk-free rate in determining the discount rate to discount the cash flows of the liability, is determined by taking into consideration publicly available information relating to spreads in the secondary market for MetLife, Inc.'s debt, including related credit default swaps. These observable spreads are then adjusted, as necessary, to reflect the priority of these liabilities and the claims paying ability of the issuing insurance subsidiaries compared to MetLife, Inc. Risk margins are established to capture the non-capital market risks of the instrument which represent the additional compensation a market participant would require to assume the risks related to the uncertainties in certain actuarial assumptions. The establishment of risk margins requires the use of significant management judgment, including assumptions of the amount and cost of capital needed to cover the guarantees.

The table below illustrates the impact that a range of reasonably likely variances in credit spreads would have on our consolidated balance sheet, excluding the effect of income tax, related to the embedded derivative valuation on certain variable annuity products measured at estimated fair value. In determining the ranges, we have considered current market conditions, as well as the market level of spreads that can reasonably be anticipated over the near term. The ranges do not reflect extreme market conditions such as those experienced during the 2008-2009 financial crisis, as we do not consider those to be reasonably likely events in the near future.

The impact of the range of reasonably likely variances in credit spreads decreased as compared to prior periods. However, these estimated effects do not take into account potential changes in other variables, such as equity price levels and market volatility, which can also contribute significantly to changes in carrying values. Therefore, the table does not necessarily reflect the ultimate impact on the consolidated financial statements under the credit spread variance scenarios presented below.

	Changes in Balance Sheet Carrying Value At December 31, 2019	
	Policyholder Account Balances	**DAC and VOBA**
	(In millions)	
100% increase in our credit spread	$ 488	$ 46
As reported	$ 624	$ 73
50% decrease in our credit spread	$ 705	$ 90

The accounting for derivatives is complex and interpretations of accounting standards continue to evolve in practice. If it is determined that hedge accounting designations were not appropriately applied, reported net income could be materially affected. Assessments of the effectiveness of hedging relationships are also subject to interpretations and estimations and different interpretations or estimates may have a material effect on the amount reported in net income.

Variable annuities with guaranteed minimum benefits may be more costly than expected in volatile or declining equity markets. Market conditions including, but not limited to, changes in interest rates, equity indices, market volatility and foreign currency exchange rates, changes in our nonperformance risk, variations in actuarial assumptions regarding policyholder behavior, mortality and risk margins related to non-capital market inputs, may result in significant fluctuations in the estimated fair value of the guarantees that could materially affect net income. If interpretations change, there is a risk that features previously not bifurcated may require bifurcation and reporting at estimated fair value on the consolidated financial statements and respective changes in estimated fair value could materially affect net income.

Additionally, we ceded the risk associated with certain of the variable annuities with guaranteed minimum benefits described in the preceding paragraphs. The value of the embedded derivatives on the ceded risk is determined using a methodology consistent with that described previously for the guarantees directly written by us with the exception of the input for nonperformance risk that reflects the credit of the reinsurer. Because certain of the direct guarantees do not meet the definition of an embedded derivative and, thus are not accounted for at fair value, significant fluctuations in net income may occur since the change in fair value of the embedded derivative on the ceded risk is being recorded in net income without a corresponding and offsetting change in fair value of the direct guarantee.

See Note 9 of the Notes to the Consolidated Financial Statements for additional information on our derivatives and hedging programs.

Goodwill

Goodwill is tested for impairment at least annually or more frequently if events or circumstances, such as adverse changes in the business climate, indicate that there may be justification for conducting an interim test.

For purposes of goodwill impairment testing, if the carrying value of a reporting unit exceeds its estimated fair value, the implied fair value of the reporting unit goodwill is compared to the carrying value of that goodwill to measure the amount of impairment loss, if any. In such instances, the implied fair value of the goodwill is determined in the same manner as the amount of goodwill that would be determined in a business acquisition. The key inputs, judgments and assumptions necessary in determining estimated fair value of the reporting units include projected adjusted earnings, current book value, the level of economic capital required to support the mix of business, long-term growth rates, comparative market multiples, the account value of in-force business, projections of new and renewed business, as well as margins on such business, interest rate levels, credit spreads, equity market levels, and the discount rate that we believe is appropriate for the respective reporting unit.

In the third quarter of 2019, we tested the MetLife Holdings life insurance reporting unit for impairment using the actuarial based embedded value fair valuation approach. The estimated fair value of the reporting unit exceeded the carrying value by approximately 43% and, therefore, the reporting unit was not impaired. If we had assumed that the discount rate was 100 basis points higher than the discount rate used, the estimated fair value of the MetLife Holdings life insurance reporting unit would have been higher than the carrying value by approximately 22%. This reporting unit consists of operations relating to products and businesses we no longer actively market. As of December 31, 2019, the amount of goodwill allocated to this reporting unit was $887 million.

We also performed our annual goodwill impairment tests of all other reporting units during the third quarter of 2019 using a qualitative assessment and/or quantitative assessments under the market multiple and discounted cash flow valuation approaches based on best available data as of June 30, 2019. We concluded that the estimated fair values of all such reporting units were substantially in excess of their carrying values and, therefore, goodwill was not impaired.

We apply significant judgment when determining the estimated fair value of our reporting units and when assessing the relationship of market capitalization to the aggregate estimated fair value of our reporting units. The valuation methodologies utilized are subject to key judgments and assumptions that are sensitive to change. Estimates of fair value are inherently uncertain and represent only management’s reasonable expectation regarding future developments. These estimates and the judgments and assumptions upon which the estimates are based will, in all likelihood, differ in some respects from actual future results. Declines in the estimated fair value of our reporting units could result in goodwill impairments in future periods which could materially adversely affect our results of operations or financial position.

See Note 12 of the Notes to the Consolidated Financial Statements for additional information on our goodwill.

Employee Benefit Plans

Certain subsidiaries of MetLife, Inc. sponsor defined benefit pension plans and other postretirement benefit plans covering eligible employees. See Note 18 of the Notes to the Consolidated Financial Statements for information on amendments to our U.S. benefit plans. The calculation of the obligations and expenses associated with these plans requires an extensive use of assumptions such as the discount rate, expected rate of return on plan assets, rate of future compensation increases and healthcare cost trend rates, as well as assumptions regarding participant demographics such as rate and age of retirement, withdrawal rates and mortality. In consultation with external actuarial firms, we determine these assumptions based upon a variety of factors such as historical experience of the plan and its assets, currently available market and industry data, and expected benefit payout streams.

We determine the expected rate of return on plan assets based upon an approach that considers inflation, real return, term premium, credit spreads, equity risk premium and capital appreciation, as well as expenses, expected asset manager performance, asset weights and the effect of rebalancing. Given the amount of plan assets as of December 31, 2018, the beginning of the measurement year, if we had assumed an expected rate of return for both our pension and other postretirement benefit plans that was 100 basis points higher or 100 basis points lower than the rates we assumed, the change in our net periodic benefit costs would have been a decrease of $100 million and an increase of $100 million, respectively, in 2019. This considers only changes in our assumed long-term rate of return given the level and mix of invested assets at the beginning of the year, without consideration of possible changes in any of the other assumptions described above that could ultimately accompany any changes in our assumed long-term rate of return.

We determine the discount rates used to value the Company's pension and postretirement obligations, based upon rates commensurate with current yields on high quality corporate bonds. Given our pension and postretirement obligations as of December 31, 2018, the beginning of the measurement year, if we had assumed a discount rate for both our pension and postretirement benefit plans that was 100 basis points higher or 100 basis points lower than the rates we assumed, the change in our net periodic benefit costs would have been a decrease of $97 million and an increase of $94 million, respectively, in 2019. This considers only changes in our assumed discount rates without consideration of possible changes in any of the other assumptions described above that could ultimately accompany any changes in our assumed discount rate. The assumptions used may differ materially from actual results due to, among other factors, changing market and economic conditions and changes in participant demographics. These differences may have a significant impact on the Company's consolidated financial statements and liquidity.

See Note 18 of the Notes to the Consolidated Financial Statements for additional discussion of assumptions used in measuring liabilities relating to our employee benefit plans.

Income Taxes

We provide for federal, state and foreign income taxes currently payable, as well as those deferred due to temporary differences between the financial reporting and tax bases of assets and liabilities. Our accounting for income taxes represents our best estimate of various events and transactions. Tax laws are often complex and may be subject to differing interpretations by the taxpayer and the relevant governmental taxing authorities. In establishing a provision for income tax expense, we must make judgments and interpretations about the application of inherently complex tax laws. We must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions in which we conduct business.

In establishing a liability for unrecognized tax benefits, assumptions may be made in determining whether, and to what extent, a tax position may be sustained. Once established, unrecognized tax benefits are adjusted when there is more information available or when events occur requiring a change.

Valuation allowances are established against deferred tax assets when management determines, based on available information, that it is more likely than not that deferred income tax assets will not be realized. Significant judgment is required in determining whether valuation allowances should be established, as well as the amount of such allowances. See Note 1 of the Notes to the Consolidated Financial Statements for additional information relating to our determination of such valuation allowances.

We may be required to change our provision for income taxes when estimates used in determining valuation allowances on deferred tax assets significantly change, or when receipt of new information indicates the need for adjustment in valuation allowances. Additionally, future events, such as changes in tax laws, tax regulations, or interpretations of such laws or regulations, could have an impact on the provision for income tax and the effective tax rate. Any such changes could significantly affect the amounts reported on the consolidated financial statements in the year these changes occur.

See also Notes 1 and 19 of the Notes to the Consolidated Financial Statements for additional information on our income taxes.

Litigation Contingencies

We are a defendant in a large number of litigation matters and are involved in a number of regulatory investigations. Given the large and/or indeterminate amounts sought in certain of these matters and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material effect on the Company's consolidated net income or cash flows in particular quarterly or annual periods. Liabilities are established when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Liabilities related to certain lawsuits, including our asbestos-related liability, are especially difficult to estimate due to the limitation of reliable data and uncertainty regarding numerous variables that can affect liability estimates. On a quarterly and annual basis, we review relevant information with respect to liabilities for litigation, regulatory investigations and litigation-related contingencies to be reflected in our consolidated financial statements. It is possible that an adverse outcome in certain of our litigation and regulatory investigations, including asbestos-related cases, or the use of different assumptions in the determination of amounts recorded could have a material effect upon our consolidated net income or cash flows in particular quarterly or annual periods.

See Note 21 of the Notes to the Consolidated Financial Statements for additional information regarding our assessment of litigation contingencies.

Economic Capital

Economic capital is an internally developed risk capital model, the purpose of which is to measure the risk in the business and to provide a basis upon which capital is deployed. The economic capital model accounts for the unique and specific nature of the risks inherent in our business. Our economic capital model, coupled with considerations of local capital requirements, aligns segment allocated equity with emerging standards and consistent risk principles. Economic capital-based risk estimation is an evolving science and industry best practices have emerged and continue to evolve. Areas of evolving industry best practices include stochastic liability valuation techniques, alternative methodologies for the calculation of diversification benefits, and the quantification of appropriate shock levels. MetLife's management is responsible for the ongoing production and enhancement of the economic capital model and reviews its approach periodically to ensure that it remains consistent with emerging industry practice standards. For further information, see "Financial Measures and Segment Accounting Policies" in Note 2 of the Notes to the Consolidated Financial Statements.

Acquisitions and Dispositions

Acquisition of PetFirst

In December 2019, the Company and PetFirst Healthcare, LLC ("PetFirst"), a fast-growing pet health insurance administrator, entered into a definitive agreement under which MetLife will acquire PetFirst. The transaction closed in January 2020.

Acquisition of Willing

In November 2019, the Company completed the acquisition of Bequest, Inc. ("Willing"), a leading digital estate planning service. This transaction brings new digital capabilities to the Company and reinforces its commitment to providing simple and easy-to-use benefits that respond to consumer needs.

Pending Disposition of MetLife Hong Kong

For information regarding the Company's definitive agreement to sell, MetLife Hong Kong, see Note 3 of the Notes to the Consolidated Financial Statements.

Disposition of MetLife Afore

For information regarding the Company's 2018 disposition of MetLife Afore, S.A. de C.V. ("MetLife Afore"), its pension fund management business in Mexico, see Note 3 of the Notes to the Consolidated Financial Statements.

Separation of Brighthouse

In 2017, MetLife, Inc. completed the separation of Brighthouse Financial, Inc. and its subsidiaries ("Brighthouse") through a distribution of 96,776,670 shares of Brighthouse Financial, Inc. common stock to the MetLife, Inc. common shareholders (the "Separation"). For information regarding the Separation, the Company's 2018 sale of the FVO Brighthouse Common Stock, and ongoing transactions between MetLife and Brighthouse, see Notes 3 and 13 of the Notes to the Consolidated Financial Statements.

Results of Operations

Consolidated Results

Business Overview. Overall sales for 2019 increased over 2018 levels reflecting higher sales in the majority of our businesses. In our U.S. segment, sales increased in our Group Benefits business as a result of strong sales in both our core and voluntary products. In our RIS business, sales were slightly lower, as higher funding agreement issuances and structured settlement sales were more than offset by lower sales of pension risk transfers and stable value products. Sales in our Asia segment decreased as a result of lower sales in Japan, a large group case in Australia in 2018, and the pending disposition of MetLife Hong Kong, partially offset by higher sales in Korea. Sales in our Latin America segment improved as a result of higher sales in Mexico, Brazil and Chile. In our EMEA segment, sales improved as a result of increases in Turkey, the U.K. and Egypt.

	Years Ended December 31,	
	2019	2018
	(In millions)	
Revenues		
Premiums	$ 42,235	$ 43,840
Universal life and investment-type product policy fees	5,603	5,502
Net investment income	18,868	16,166
Other revenues	1,842	1,880
Net investment gains (losses)	444	(298)
Net derivative gains (losses)	628	851
Total revenues	69,620	67,941
Expenses		
Policyholder benefits and claims and policyholder dividends	42,672	43,907
Interest credited to policyholder account balances	6,464	4,013
Capitalization of DAC	(3,358)	(3,254)
Amortization of DAC and VOBA	2,896	2,975
Amortization of negative VOBA	(33)	(56)
Interest expense on debt	955	1,122
Other expenses	13,229	12,927
Total expenses	62,825	61,634
Income (loss) before provision for income tax	6,795	6,307
Provision for income tax expense (benefit)	886	1,179
Net income (loss)	5,909	5,128
Less: Net income (loss) attributable to noncontrolling interests	10	5
Net income (loss) attributable to MetLife, Inc.	5,899	5,123
Less: Preferred stock dividends	178	141
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 5,721	$ 4,982

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018

During 2019, net income (loss) increased $781 million from 2018, primarily driven by a favorable change in net investment gains (losses) and an increase in adjusted earnings, which includes benefits from certain tax settlements, partially offset by an unfavorable change in net derivative gains (losses).

Management of Investment Portfolio and Hedging Market Risks with Derivatives. We manage our investment portfolio using disciplined ALM principles, focusing on cash flow and duration to support our current and future liabilities. Our intent is to match the timing and amount of liability cash outflows with invested assets that have cash inflows of comparable timing and amount, while optimizing risk-adjusted net investment income and risk-adjusted total return. Our investment portfolio is heavily weighted toward fixed income investments, with over 80% of our portfolio invested in fixed maturity securities AFS and mortgage loans. These securities and loans have varying maturities and other characteristics which cause them to be generally well suited for matching the cash flow and duration of insurance liabilities. In addition, our general account investment portfolio includes, within contractholder-directed equity securities and fair value option securities ("FVO Securities") (collectively, "Unit-linked and FVO Securities"), contractholder-directed equity securities supporting unit-linked variable annuity type liabilities ("Unit-linked investments"), which do not qualify as separate account assets. Returns on these Unit-linked investments, which can vary significantly from period to period, include changes in estimated fair value subsequent to purchase, inure to contractholders and are offset in earnings by a corresponding change in policyholder account balances through interest credited to policyholder account balances.

We purchase investments to support our insurance liabilities and not to generate net investment gains and losses. However, net investment gains and losses are incurred and can change significantly from period to period due to changes in external influences, including changes in market factors such as interest rates, foreign currency exchange rates, credit spreads and equity markets; counterparty specific factors such as financial performance, credit rating and collateral valuation; and internal factors such as portfolio rebalancing. Changes in these factors from period to period can significantly impact the levels of both impairments and realized gains and losses on investments sold.

We also use derivatives as an integral part of our management of the investment portfolio and insurance liabilities to hedge certain risks, including changes in interest rates, foreign currency exchange rates, credit spreads and equity market levels. We use freestanding interest rate, equity, credit and currency derivatives to hedge certain invested assets and insurance liabilities. A portion of these hedges are designated and qualify as accounting hedges, which reduce volatility in earnings. For those hedges not designated as accounting hedges, changes in market factors lead to the recognition of fair value changes in net derivative gains (losses) generally without an offsetting gain or loss recognized in earnings for the item being hedged, which creates volatility in earnings. We actively evaluate market risk hedging needs and strategies to ensure our free cash flow and capital objectives are met under a range of market conditions.

Certain variable annuity products with guaranteed minimum benefits contain embedded derivatives that are measured at estimated fair value separately from the host variable annuity contract, with changes in estimated fair value recorded in net derivative gains (losses). We use freestanding derivatives to hedge the market risks inherent in these variable annuity guarantees. We continuously review and refine our strategy and ongoing refinement of the strategy may be required to take advantage of NAIC rules related to a statutory accounting election for derivatives that mitigate interest rate sensitivity related to variable annuity guarantees. The restructured hedge strategy is classified as a macro hedge program, included in the non-VA program derivatives section of the table below, to protect our overall statutory capital from significant adverse economic conditions. The valuation of these embedded derivatives includes a nonperformance risk adjustment, which is unhedged, and can be a significant driver of net derivative gains (losses) and volatility in earnings, but does not have an economic impact on us.

Net Derivative Gains (Losses). The variable annuity embedded derivatives and associated freestanding derivative hedges are collectively referred to as “VA program derivatives.” All other derivatives that are economic hedges of certain invested assets and insurance liabilities are referred to as “non-VA program derivatives.” The table below presents the impact on net derivative gains (losses) from non-VA program derivatives and VA program derivatives:

	Years Ended December 31,	
	2019	**2018**
	(In millions)	
Non-VA program derivatives		
Interest rate	$ 1,384	$ 177
Foreign currency exchange rate	(67)	464
Credit	282	(52)
Equity	(403)	115
Non-VA embedded derivatives	(162)	78
Total non-VA program derivatives	1,034	782
VA program derivatives		
Market risks in embedded derivatives	851	(51)
Nonperformance risk adjustment on embedded derivatives	(116)	133
Other risks in embedded derivatives	(301)	(310)
Total embedded derivatives	434	(228)
Freestanding derivatives hedging embedded derivatives	(840)	297
Total VA program derivatives	(406)	69
Net derivative gains (losses)	$ 628	$ 851

The favorable change in net derivative gains (losses) on non-VA program derivatives was $252 million ($199 million, net of income tax). This was primarily due to a favorable change in interest rate impact due to long-term U.S. interest rates decreasing in 2019 and increasing in 2018, favorably impacting receive fixed interest rate swaps, options and total rate of return swaps. In addition, credit spreads narrowed in 2019 and widened in 2018, favorably impacting written credit default swaps used in replications. These favorable impacts were partially offset by the weakening of the U.S. dollar relative to certain foreign currencies in 2019 versus 2018, unfavorably impacting foreign currency forwards and swaps that primarily hedge foreign currency-denominated bonds. In addition, key equity markets increasing in 2019 versus decreasing in 2018 unfavorably impacted equity options acquired primarily as part of our macro hedge program. There was also a change in the value of the underlying assets, unfavorably impacting non-VA embedded derivatives related to funds withheld on a certain reinsurance agreement. Because certain of these hedging strategies are not designated or do not qualify as accounting hedges, the changes in the estimated fair value of these freestanding derivatives are recognized in net derivative gains (losses) without an offsetting gain or loss recognized in earnings for the items being hedged.

The unfavorable change in net derivative gains (losses) on VA program derivatives was $475 million ($375 million, net of income tax). This was due to an unfavorable change of $249 million ($197 million, net of income tax) in the nonperformance risk adjustment on embedded derivatives and an unfavorable change of $235 million ($186 million, net of income tax) in freestanding derivatives hedging market risks in embedded derivatives, net of market risks in embedded derivatives, partially offset by a favorable change of $9 million, ($7 million, net of income tax) in other risks in embedded derivatives. Other risks relate primarily to the impact of policyholder behavior and other non-market risks that generally cannot be hedged.

The aforementioned $235 million ($186 million, net of income tax) unfavorable change reflects a $1.1 billion ($898 million, net of income tax) unfavorable change in freestanding derivatives hedging market risks in embedded derivatives, partially offset by a $902 million ($713 million, net of income tax) favorable change in market risks in embedded derivatives.

The primary changes in market factors are summarized as follows:

- Long-term U.S. interest rates decreased in 2019 and increased in 2018, contributing to a favorable change in our freestanding derivatives and an unfavorable change in our embedded derivatives. For example, the 30-year U.S. swap rate decreased 75 basis points in 2019 and increased 30 basis points in 2018.
- Key equity index levels increased in 2019 and decreased in 2018, contributing to an unfavorable change in our freestanding derivatives and a favorable change in our embedded derivatives. For example, the S&P 500 Index increased 29% in 2019 and decreased 6% in 2018.

The aforementioned $9 million ($7 million, net of income tax) favorable change in other risks in embedded derivatives reflects actuarial assumption updates and a combination of factors, which include fees deducted from accounts, changes in the benefit base, premiums, lapses, withdrawals and deaths.

The aforementioned $249 million ($197 million, net of income tax) unfavorable change in the nonperformance risk adjustment on embedded derivatives resulted from an unfavorable change of $137 million, before income tax, related to model changes and changes in capital market inputs, such as long-term interest rates and key equity index levels, on variable annuity guarantees in addition to an unfavorable change of $112 million, before income tax, related to changes in our own credit spread.

When equity index levels decrease in isolation, the variable annuity guarantees become more valuable to policyholders, which results in an increase in the undiscounted embedded derivative liability. Discounting this unfavorable change by the risk adjusted rate yields a smaller loss than by discounting at the risk-free rate, thus creating a gain from including an adjustment for nonperformance risk.

When the risk-free interest rate decreases in isolation, discounting the embedded derivative liability produces a higher valuation of the liability than if the risk-free interest rate had remained constant. Discounting this unfavorable change by the risk adjusted rate yields a smaller loss than by discounting at the risk-free interest rate, thus creating a gain from including an adjustment for nonperformance risk.

When our own credit spread increases in isolation, discounting the embedded derivative liability produces a lower valuation of the liability than if our own credit spread had remained constant. As a result, a gain is created from including an adjustment for nonperformance risk. For each of these primary market drivers, the opposite effect occurs when the driver moves in the opposite direction.

Net Investment Gains (Losses). The favorable change in net investment gains (losses) of $742 million ($586 million, net of income tax) primarily reflects 2018 losses on FVO Brighthouse Common Stock comprised of a change in fair value through date of disposal and loss on disposal, as well as mark-to-market losses on equity securities in 2018, both of which are measured at fair value through net income. Additionally, there were higher gains on sales of fixed maturity securities AFS in 2019 versus 2018. These favorable changes were partially offset by higher foreign currency transaction losses.

Divested Businesses. Income (loss) before provision for income tax related to the divested businesses, excluding net investment gains (losses) and net derivative gains (losses), increased $18 million ($6 million, net of income tax) to a loss of $104 million ($84 million, net of income tax) in 2019 from a loss of $122 million ($90 million, net of income tax) in 2018. Included in this increase was an increase in total revenues of $115 million, before income tax, and an increase in total expenses of $97 million, before income tax. Divested businesses primarily include activity related to the Separation and the pending disposition of MetLife Hong Kong.

Taxes. Our 2019 effective tax rate on income (loss) before provision for income tax was 13%. Our effective tax rate differed from the U.S. statutory rate of 21% primarily due to tax benefits related to non-taxable investment income, tax credits, tax benefits related to the resolution of an uncertainty regarding the deemed repatriation transition tax enacted as a part of U.S. Tax Reform and the settlement of certain tax audits, partially offset by tax charges from foreign earnings taxed at different rates than the U.S. statutory rate and the impact from the definitive agreement to sell MetLife Hong Kong. Our 2018 effective tax rate on income (loss) before provision for income tax was 19%. Our effective tax rate differed from the U.S. statutory rate of 21% primarily due to tax benefits related to non-taxable investment income, tax credits, the settlement of tax audits and a non-cash transfer of assets from a wholly-owned U.K. investment subsidiary to its U.S. parent. These tax benefits were partially offset by tax charges from foreign earnings taxed at different rates than the U.S. statutory rate, U.S. Tax Reform, a non-deductible loss incurred on the mark-to-market and disposition of FVO Brighthouse Common Stock and a tax adjustment in Chile.

Actuarial Assumption Review and Certain Other Insurance Adjustments. Results for 2019 include a $201 million ($162 million, net of income tax) charge associated with our annual review of actuarial assumptions related to reserves and DAC, of which a $31 million loss ($27 million, net of income tax) was recognized in net derivative gains (losses).

Of the $201 million charge, $49 million ($37 million, net of income tax) was related to DAC and $152 million ($125 million, net of income tax) was associated with reserves. The portion of the $201 million charge that was included in adjusted earnings was $179 million ($143 million, net of income tax).

The $31 million loss ($27 million, net of income tax) recognized in net derivative gains (losses) associated with our annual review of actuarial assumptions was included within the other risks in embedded derivatives line in the table above.

As a result of our annual review of actuarial assumptions, changes were made to economic, biometric, policyholder behavior, and operational assumptions. The most significant impacts were in the MetLife Holdings segment, driven by the projection of closed block results and economic updates. The breakdown of total 2019 results is summarized as follows:

- Economic assumption updates resulted in a net charge of $151 million ($117 million, net of income tax).
- Changes in biometric assumptions resulted in a net charge of $21 million ($15 million, net of income tax).
- Changes in policyholder behavior assumptions resulted in a favorable impact of $16 million ($14 million, net of income tax).
- Changes in operational assumptions, most notably related to closed block projections, resulted in a net charge of $44 million ($44 million, net of income tax).

Results for 2018 include a $358 million ($272 million, net of income tax) charge associated with our annual review of actuarial assumptions related to reserves and DAC, of which a $131 million loss ($94 million, net of income tax) was recognized in net derivative gains (losses). Of the $358 million charge, $20 million ($20 million, net of income tax) was related to DAC and $338 million ($252 million, net of income tax) was associated with reserves. The portion of the $358 million charge that is included in adjusted earnings is $53 million ($42 million, net of income tax).

Certain other insurance adjustments recorded in 2019 include a $22 million ($17 million, net of income tax) charge due to a 2019 increase in our IBNR long-term care reserves reflecting enhancements to our methodology related to potential claims in our MetLife Holdings segment. Certain other insurance adjustments recorded in 2018 include a $79 million ($63 million, net of income tax) charge due to an increase in our IBNR life reserves, reflecting enhancements to our processes related to potential claims in our MetLife Holdings segment, and a favorable net insurance adjustment of $47 million ($37 million, net of income tax) resulting from reserve and DAC modeling improvements in our individual disability insurance business in our U.S. segment. These adjustments are included in adjusted earnings.

Adjusted Earnings. As more fully described in "— Non-GAAP and Other Financial Disclosures," we use adjusted earnings, which does not equate to income (loss) from continuing operations, net of income tax, as determined in accordance with GAAP, to analyze our performance, evaluate segment performance and allocate resources. We believe that the presentation of adjusted earnings and other financial measures based on adjusted earnings, as we measure it for management purposes, enhances the understanding of our performance by highlighting the results of operations and the underlying profitability drivers of the business. Adjusted earnings and other financial measures based on adjusted earnings allow analysis of our performance relative to our business plan and facilitate comparisons to industry results. Adjusted earnings should not be viewed as a substitute for net income (loss). Adjusted earnings available to common shareholders and adjusted earnings available to common shareholders on a constant currency basis should not be viewed as substitutes for net income (loss) available to MetLife, Inc.'s common shareholders. Adjusted earnings available to common shareholders increased $306 million, net of income tax, to $5.8 billion, net of income tax, for 2019 from $5.5 billion, net of income tax, for 2018.

Reconciliation of net income (loss) to adjusted earnings available to common shareholders

Year Ended December 31, 2019

	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 3,148	$ 1,755	$ 403	$ 272	$ 780	$ (637)	$ 5,721
Add: Preferred stock dividends	—	—	—	—	—	178	178
Add: Net income (loss) attributable to noncontrolling interests	—	—	8	3	—	(1)	10
Net income (loss)	$ 3,148	$ 1,755	$ 411	$ 275	$ 780	$ (460)	$ 5,909
Less: adjustments from net income (loss) to adjusted earnings available to common shareholders:							
Revenues:							
Net investment gains (losses)	44	232	(22)	(1)	294	(103)	444
Net derivative gains (losses)	566	467	(11)	(24)	(273)	(97)	628
Premiums	—	71	—	—	—	—	71
Universal life and investment-type product policy fees	—	105	—	15	88	—	208
Net investment income	(200)	229	(9)	1,151	(141)	8	1,038
Other revenues	—	11	—	—	—	246	257
Expenses:							
Policyholder benefits and claims and policyholder dividends	(37)	(83)	(202)	15	(177)	4	(480)
Interest credited to policyholder account balances	19	(293)	(53)	(1,108)	—	—	(1,435)
Capitalization of DAC	—	20	—	—	—	—	20
Amortization of DAC and VOBA	—	(92)	—	8	(25)	—	(109)
Amortization of negative VOBA	—	—	—	—	—	—	—
Interest expense on debt	—	—	—	—	—	—	—
Other expenses	—	(54)	11	(29)	(87)	(292)	(451)
Goodwill impairment	—	—	—	—	—	—	—
Provision for income tax (expense) benefit	(82)	(263)	88	(34)	67	(3)	(227)
Adjusted earnings	$ 2,838	$ 1,405	$ 609	$ 282	$ 1,034	$ (223)	$ 5,945
Less: Preferred stock dividends						178	178
Adjusted earnings available to common shareholders						$ (401)	$ 5,767

Year Ended December 31, 2018

	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 2,755	$ 1,547	$ 471	$ 294	$ 1,016	$ (1,101)	$ 4,982
Add: Preferred stock dividends	—	—	—	—	—	141	141
Add: Net income (loss) attributable to noncontrolling interests	—	—	6	2	—	(3)	5
Net income (loss)	$ 2,755	$ 1,547	$ 477	$ 296	$ 1,016	$ (963)	$ 5,128
Less: adjustments from net income (loss) to adjusted earnings available to common shareholders:							
Revenues:							
Net investment gains (losses)	(72)	142	18	5	(164)	(227)	(298)
Net derivative gains (losses)	268	312	(64)	28	263	44	851
Premiums	—	—	—	—	—	—	—
Universal life and investment-type product policy fees	—	(6)	7	25	94	—	120
Net investment income	(274)	(262)	(45)	(488)	(157)	9	(1,217)
Other revenues	—	19	—	—	—	305	324
Expenses:							
Policyholder benefits and claims and policyholder dividends	11	3	(40)	(31)	(117)	—	(174)
Interest credited to policyholder account balances	4	218	(21)	479	—	—	680
Capitalization of DAC	—	—	1	—	—	—	1
Amortization of DAC and VOBA	—	5	—	1	(221)	—	(215)
Amortization of negative VOBA	—	1	—	—	—	—	1
Interest expense on debt	—	—	—	—	—	(63)	(63)
Other expenses	—	(7)	4	(7)	—	(388)	(398)
Goodwill impairment	—	—	—	—	—	—	—
Provision for income tax (expense) benefit	14	(115)	25	7	63	(80)	(86)
Adjusted earnings	$ 2,804	$ 1,237	$ 592	$ 277	$ 1,255	$ (563)	$ 5,602
Less: Preferred stock dividends						141	141
Adjusted earnings available to common shareholders						$ (704)	$ 5,461
Adjusted earnings available to common shareholders on a constant currency basis (1)	$ 2,804	$ 1,208	$ 565	$ 255	$ 1,255	$ (704)	$ 5,383

(1) Amounts for U.S., MetLife Holdings and Corporate & Other are shown on a reported basis, as constant currency impact is not significant.

Consolidated Results — Adjusted Earnings

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018

Unless otherwise stated, all amounts discussed below are net of income tax.

Overview. The primary drivers of the increase in adjusted earnings were benefits from certain tax settlements and higher net investment income due to growth in the investment portfolio, partially offset by higher interest credited expense, unfavorable underwriting and the unfavorable impact of our annual actuarial assumption review.

Foreign Currency. Changes in foreign currency exchange rates had a $78 million negative impact on adjusted earnings for 2019 compared to 2018. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

Business Growth. We benefited from positive net flows from many of our businesses, which increased our invested asset base. Growth in the investment portfolios of our Asia and U.S. segments resulted in higher net investment income. However, this was partially offset by a corresponding increase in interest credited expenses on certain insurance-related liabilities. Higher fee income in our Asia, Latin America and EMEA segments was largely offset by lower fee income in our MetLife Holdings segment. Business growth also drove an increase in commissions, which was offset by higher DAC capitalization. A decrease in expenses was primarily due to the 2019 abatement of the annual health insurer fee under the PPACA. The combined impact of the items affecting our business growth, partially offset by higher DAC amortization, resulted in a $206 million increase in adjusted earnings.

Market Factors. Market factors, including interest rate levels, variability in equity market returns, and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Excluding the impact of changes in foreign currency exchange rates on net investment income in our non-U.S. segments and changes in inflation rates on our inflation-indexed investments, investment yields decreased. Investment yields were negatively affected by lower yields on fixed income securities, lower income from derivatives and lower returns on real estate investments. In addition, lower earnings from our securities lending program resulted primarily from lower margins and balances. These decreases were partially offset by higher prepayment fees and higher returns on FVO Securities, equity-linked notes and hedge funds. The decrease in investment yields was more than offset by an increase in asset-based fee income and lower DAC amortization in MetLife Holdings, both driven by higher equity returns, and a decrease in average interest credited expenses, primarily in Asia. The changes in market factors discussed above resulted in a $44 million increase in adjusted earnings.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Unfavorable underwriting resulted in a $121 million decrease in adjusted earnings primarily as a result of higher claims and lapses in our Asia segment, less favorable mortality in our MetLife Holdings and Latin America segments, and an increase in non-catastrophe claim costs and adverse prior year development in our Property & Casualty business, partially offset by favorable claims experience and favorable mortality, primarily in our Group Benefits business, and lower catastrophe losses. The impact in 2019 and 2018 of our annual actuarial assumption review resulted in a net decrease of $101 million in adjusted earnings, primarily due to less favorable assumption changes in our MetLife Holdings segment in 2019. Refinements to DAC and certain insurance-related liabilities, which were recorded in 2019 and 2018, resulted in an $8 million increase in adjusted earnings.

Interest Expense on Debt. Interest expense on debt decreased by $82 million, primarily due to the exchange of senior notes for FVO Brighthouse Common Stock and the redemption of senior notes for cash in 2018, partially offset by a premium paid in excess of the debt principal and accrued and unpaid interest on senior notes redeemed in 2019.

Expenses. Expenses increased compared to 2018, which resulted in a $53 million decrease in adjusted earnings, primarily due to higher costs associated with corporate initiatives and projects, including the continued investment in our unit cost initiative and a prior period reduction of a litigation reserve in Argentina, partially offset by lower legal expenses, interest on uncertain tax positions and employee-related costs, as well as a decline in costs associated with certain other enterprise-wide initiatives.

Taxes. Our 2019 effective tax rate on adjusted earnings was 10%. Our effective tax rate differed from the U.S. statutory rate of 21% primarily due to tax benefits from non-taxable investment income and tax credits, the resolution of an uncertainty regarding the deemed repatriation transition tax enacted as a part of U.S. Tax Reform and the settlement of certain tax audits, partially offset by tax charges from foreign earnings taxed at different rates than the U.S. statutory rate. Our 2018 effective tax rate on adjusted earnings was 16%. Our effective tax rate differed from the U.S. statutory rate of 21% primarily due to tax benefits from non-taxable investment income, tax credits, the settlement of tax audits and a non-cash transfer of assets from a wholly-owned U.K. investment subsidiary to its U.S. parent, partially offset by tax charges from foreign earnings taxed at different rates than the U.S. statutory rate and a tax adjustment in Chile.

Segment Results and Corporate & Other

U.S.

Business Overview. Sales increased compared to 2018, primarily driven by our Group Benefits business, as a result of strong sales in both our core and voluntary products. In our RIS business, sales were slightly lower than 2018, as higher funding agreement issuances and structured settlement sales were more than offset by lower sales of pension risk transfers (driven by a large transaction in the second quarter of 2018) and stable value products. Changes in premiums for the RIS business were almost entirely offset by the related changes in policyholder benefits and claims. In our Property & Casualty business, sales were relatively flat compared to 2018. In addition, the number of exposures decreased from 2018, reflecting management actions to improve the quality of the business.

	Years Ended December 31,	
	2019	**2018**
	(In millions)	
Adjusted revenues		
Premiums	$ 26,801	$ 28,186
Universal life and investment-type product policy fees	1,078	1,053
Net investment income	7,021	6,977
Other revenues	887	821
Total adjusted revenues	35,787	37,037
Adjusted expenses		
Policyholder benefits and claims and policyholder dividends	26,165	27,765
Interest credited to policyholder account balances	1,984	1,790
Capitalization of DAC	(484)	(449)
Amortization of DAC and VOBA	475	477
Interest expense on debt	10	12
Other expenses	4,075	3,902
Total adjusted expenses	32,225	33,497
Provision for income tax expense (benefit)	724	736
Adjusted earnings	$ 2,838	$ 2,804

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018

Unless otherwise stated, all amounts discussed below are net of income tax.

Business Growth. The impact of positive flows from pension risk transfer transactions in both 2019 and 2018 and funding agreement issuances in 2019 resulted in higher average invested assets, improving net investment income. However, consistent with the growth in average invested assets, interest credited expenses on long-duration liabilities increased. Higher volume-related, premium tax and direct expenses, driven by business growth, were partially offset by lower employee-related expenses. This net increase in expenses, partially offset by the decrease due to the 2019 abatement of the annual health insurer fee under the PPACA, was more than offset by a corresponding increase in premiums, fees and other revenues. The combined impact of the items affecting our business growth increased adjusted earnings by $111 million.

Market Factors. Market factors, including interest rate levels, variability in equity market returns and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Investment yields decreased, primarily due to lower income from derivatives, lower yields on fixed income securities and real estate investments, lower returns on private equity funds and lower earnings from our securities lending program, primarily from lower margins and balances. These decreases were partially offset by higher prepayment fees and higher yields on mortgage loans. In addition, net investment income increased as a result of the impact of an increased crediting rate on interest on economic capital. The impact of interest rate fluctuations resulted in an increase in our average interest credited rates on deposit-type liabilities, partially offset by lower rates on our long-duration liabilities, which drove a net increase in interest credited expenses. The changes in market factors discussed above resulted in a $176 million decrease in adjusted earnings.

Underwriting and Other Insurance Adjustments. Favorable claims experience and the impact of growth in our Group Benefits business resulted in a $95 million increase in adjusted earnings. This was primarily driven by lower claim severity, favorable renewal results and an increase in recoveries in our group disability business. In both our accident & health and individual disability businesses, the impact of growth in the business and favorable claims experience also contributed to the increase in adjusted earnings. These favorable results were partially offset by less favorable dental results, driven by an increase in utilization and the impact of unfavorable prior period development in 2019. Favorable mortality, driven by claims experience in our term life business, primarily due to lower severity in 2019 and the unfavorable impact of the influenza virus in 2018, partially offset by less favorable mortality in our pension risk transfer, structured settlement, income annuities and specialized benefit resources businesses, resulted in a $42 million increase in adjusted earnings. In our Property & Casualty business, adjusted earnings decreased $77 million, the result of higher non-catastrophe claims costs, driven by higher severities in both our auto and homeowner businesses and a net increase in frequencies, with an increase in our auto business being mostly offset in our homeowner business, coupled with higher losses in the commercial business. In addition, adverse prior year development, due to auto non-catastrophe claims costs impacting the estimate of ultimate losses for prior accident years, predominantly for casualty coverages, contributed to this decrease. These unfavorable results were partially offset by lower catastrophe costs. Refinements to certain insurance and other liabilities recorded in both 2019 and 2018 resulted in a $48 million increase to adjusted earnings, which included the impact of favorable insurance adjustments resulting from enhancements to our claim-related processes, and the 2018 favorable net insurance adjustments resulting from reserve and DAC modeling improvements in our individual disability insurance business.

Asia

Business Overview. Sales decreased compared to 2018, primarily driven by lower sales of foreign currency-denominated annuity products in Japan, a large group case in Australia in the prior period, and the pending disposition of MetLife Hong Kong, partially offset by higher sales in Korea due to higher sales of retirement products and a new life product launch.

	Years Ended December 31,	
	2019	2018
	(In millions)	
Adjusted revenues		
Premiums	$ 6,632	$ 6,766
Universal life and investment-type product policy fees	1,674	1,630
Net investment income	3,691	3,317
Other revenues	56	51
Total adjusted revenues	12,053	11,764
Adjusted expenses		
Policyholder benefits and claims and policyholder dividends	5,185	5,326
Interest credited to policyholder account balances	1,710	1,465
Capitalization of DAC	(1,913)	(1,915)
Amortization of DAC and VOBA	1,288	1,302
Amortization of negative VOBA	(25)	(39)
Other expenses	3,818	3,840
Total adjusted expenses	10,063	9,979
Provision for income tax expense (benefit)	585	548
Adjusted earnings	$ 1,405	$ 1,237

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. Changes in foreign currency exchange rates decreased adjusted earnings by $29 million for 2019 compared to 2018, primarily due to the weakening of the Japanese yen and Korean won against the U.S. dollar. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

Business Growth. Asia's premiums, fees and other revenues decreased slightly as compared to 2018, mainly driven by the pending disposition of MetLife Hong Kong and a decrease in premiums from yen-denominated life products in Japan, partially offset by a related decline in policyholder benefits, as well as growth in accident & health and foreign currency-denominated life products in Japan. Positive net flows in Japan and Korea resulted in higher average invested assets, which improved net investment income. The increase in net investment income was partially offset by a corresponding increase in interest credited expenses on certain insurance liabilities. The combined impact of the items affecting our business growth improved adjusted earnings by $122 million.

Market Factors. Market factors, including interest rate levels and variability in equity market returns, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Investment results were favorably impacted by higher derivative income, earnings from our operating joint venture in China (mainly driven by a regulatory change), returns from hedge funds, private equities and real estate investments, as well as higher yields on mortgage loans. These increases were partially offset by lower yields on fixed income securities supporting U.S. dollar-denominated products sold in Japan, and fixed income securities in Bangladesh and Korea. In addition, lower interest credited rates improved adjusted earnings. The changes in market factors discussed above increased adjusted earnings by $102 million.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Higher claims and lapses primarily in Japan and Korea decreased adjusted earnings by $99 million. The impact in 2019 and 2018 of our annual actuarial assumption review resulted in a net increase of $67 million in adjusted earnings. Refinements to certain insurance and other liabilities, which were recorded in 2019 and 2018, resulted in a slight increase in adjusted earnings.

Expenses and Taxes. Expenses increased as compared to 2018, which reduced adjusted earnings by $5 million. Various tax items in both 2019 and 2018 resulted in a $9 million increase in adjusted earnings. Results for 2019 include a charge of $8 million related to a withholding tax provision on dividends from our operating joint venture in China and a $6 million benefit due to reduced tax charges as a result of recently issued tax regulations related to U.S. Tax Reform and the filing of the Company's 2018 U.S. tax return.

Latin America

Business Overview. Total sales for Latin America increased compared to 2018, driven by higher group and individual medical sales in Mexico, higher universal and variable life sales in Mexico and Chile, and higher dental and life sales in Brazil, partially offset by lower retirement sales in Chile.

	Years Ended December 31,	
	2019	2018
	(In millions)	
Adjusted revenues		
Premiums	$ 2,723	$ 2,760
Universal life and investment-type product policy fees	1,094	1,050
Net investment income	1,271	1,239
Other revenues	44	35
Total adjusted revenues	5,132	5,084
Adjusted expenses		
Policyholder benefits and claims and policyholder dividends	2,623	2,602
Interest credited to policyholder account balances	332	394
Capitalization of DAC	(396)	(377)
Amortization of DAC and VOBA	291	209
Amortization of negative VOBA	—	(1)
Interest expense on debt	3	6
Other expenses	1,443	1,421
Total adjusted expenses	4,296	4,254
Provision for income tax expense (benefit)	227	238
Adjusted earnings	$ 609	$ 592

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. Changes in foreign currency exchange rates decreased adjusted earnings by $27 million for 2019 compared to 2018, mainly due to the weakening of the Argentine and Chilean pesos against the U.S. dollar. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

Business Growth. Latin America experienced growth across several lines of business primarily within Chile and Mexico. This growth resulted in increased premiums and policy fee income, which was partially offset by related changes in policyholder benefits. Positive net flows, primarily from Chile and Argentina, partially offset by Mexico, resulted in an increase in average invested assets and generated higher net investment income. Although business growth drove an increase in commissions, net of DAC capitalization, this was more than offset by decreases in interest credited expense on certain insurance liabilities and other variable expenses. The combined impact of the items affecting business growth, including higher DAC amortization, increased adjusted earnings by $62 million.

Market Factors. Market factors, including interest rate levels and variability in equity market returns, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. Investment yields increased, driven by higher yields on FVO Securities, due to the favorable impact of equity markets on our Chilean encaje and fixed income securities in Argentina, Chile and Mexico. These increases in investment yields were partially offset by lower private equity returns in Chile and Mexico, as well as lower yields on mortgage loans and lower derivative income, both in Chile. The changes in market factors discussed above increased adjusted earnings by $61 million.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Less favorable underwriting resulted in a $23 million decrease to adjusted earnings primarily driven by higher claims experience in Mexico. The impact in 2019 and 2018 of our annual actuarial assumption review resulted in a net decrease of $18 million in adjusted earnings. In addition, refinements to certain insurance liabilities and other adjustments in 2019 and 2018, primarily in Brazil, resulted in a $12 million increase to adjusted earnings.

Expenses and Taxes. A $60 million increase in expenses was primarily the result of a prior period reduction of a litigation reserve in Argentina, along with various other expense increases. Adjusted earnings increased by $13 million due to reduced tax charges as a result of recently issued tax regulations related to U.S. Tax Reform and the filing of the Company's 2018 U.S. tax return. Other tax-related adjustments in 2019 and 2018, primarily related to foreign exchange volatility in Argentina, resulted in a net decrease in adjusted earnings of $29 million. Results for 2018 also include tax expenses of $24 million driven by a $17 million tax charge related to a tax adjustment in Chile and a $5 million tax charge in Colombia to establish a deferred tax liability due to a change in tax status.

EMEA

Business Overview. Sales increased compared to 2018 primarily driven by increases in our credit life business in Turkey and in our employee benefits business in the U.K. and Egypt.

	Years Ended December 31,	
	2019	2018
	(In millions)	
Adjusted revenues		
Premiums	$ 2,177	$ 2,131
Universal life and investment-type product policy fees	423	431
Net investment income	291	293
Other revenues	54	66
Total adjusted revenues	2,945	2,921
Adjusted expenses		
Policyholder benefits and claims and policyholder dividends	1,176	1,127
Interest credited to policyholder account balances	98	100
Capitalization of DAC	(505)	(468)
Amortization of DAC and VOBA	428	434
Amortization of negative VOBA	(8)	(15)
Other expenses	1,399	1,378
Total adjusted expenses	2,588	2,556
Provision for income tax expense (benefit)	75	88
Adjusted earnings	$ 282	$ 277

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018

Unless otherwise stated, all amounts discussed below are net of income tax.

Foreign Currency. Changes in foreign currency exchange rates decreased adjusted earnings by $22 million for 2019 as compared to 2018, primarily driven by the strengthening of the U.S. dollar against the Turkish lira, the euro, the British pound and the Polish zloty. Unless otherwise stated, all amounts discussed below are net of foreign currency fluctuations. Foreign currency fluctuations can result in significant variances in the financial statement line items.

Business Growth. Growth from our accident & health and credit life businesses in Turkey and across several European markets, partially offset by a decrease in our pensions business in Romania due to regulatory changes, increased adjusted earnings by $10 million.

Market Factors. Market factors, including interest rate levels and variability in equity market returns, impacted our results favorably by $4 million primarily due to higher investment yields in Turkey and Ukraine.

Underwriting, Actuarial Assumption Review and Other Insurance Adjustments. Unfavorable underwriting decreased adjusted earnings by $5 million as a result of unfavorable experience in (i) our credit life business in Turkey and (ii) across several businesses in European markets (primarily our employee benefits business in the U.K.), partially offset by favorable experience in our employee benefits and accident & health businesses in the Gulf region. The impact in 2019 and 2018 of our annual actuarial assumption review resulted in a net increase of $10 million in adjusted earnings. Refinements to certain insurance-related assets and liabilities that were recorded in 2019 and 2018 resulted in an $8 million increase in adjusted earnings.

Expenses and Taxes. Adjusted earnings decreased by $6 million, primarily driven by higher expenses in Europe due to transformation costs and regulatory fees, partially offset by lower costs associated with enterprise-wide initiatives. Adjusted earnings increased by $6 million due to reduced tax charges as a result of recently issued tax regulations related to U.S. Tax Reform and the filing of the Company's 2018 U.S. tax return, partially offset by the prior period release of provisions arising from the finalization of historical corporate tax filings and changes in business mix among tax jurisdictions.

MetLife Holdings

Business Overview. Our MetLife Holdings segment consists of operations relating to products and businesses, previously included in our former retail business, that we no longer actively market in the United States. We anticipate an average decline in premiums, fees and other revenues of approximately 5% per year from expected business run-off. A significant portion of our adjusted earnings is driven by separate account balances. Most directly, these balances determine asset-based fee income but they also impact DAC amortization and asset-based commissions. Separate account balances are driven by movements in the market, surrenders, deposits, withdrawals, benefit payments, transfers and policy charges. Although we have discontinued selling our long-term care product, we continue to collect premiums and administer the existing block of business, which contributed to asset growth in the segment, and we expect the related reserves to grow as this block matures. As of December 31, 2019, our future policyholder benefit liability for our long-term care business was $12.5 billion.

	Years Ended December 31,	
	2019	2018
	(In millions)	
Adjusted revenues		
Premiums	$ 3,748	$ 3,879
Universal life and investment-type product policy fees	1,124	1,218
Net investment income	5,281	5,379
Other revenues	253	250
Total adjusted revenues	10,406	10,726
Adjusted expenses		
Policyholder benefits and claims and policyholder dividends	6,970	6,833
Interest credited to policyholder account balances	905	944
Capitalization of DAC	(28)	(36)
Amortization of DAC and VOBA	299	332
Interest expense on debt	8	9
Other expenses	969	1,081
Total adjusted expenses	9,123	9,163
Provision for income tax expense (benefit)	249	308
Adjusted earnings	$ 1,034	$ 1,255

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018

Unless otherwise stated, all amounts discussed below are net of income tax.

Business Growth. Negative net flows from our deferred annuities business and a decrease in universal life deposits resulted in lower fee income. Lower net investment income, resulting from a reduced invested asset base, primarily in fixed income securities, also decreased adjusted earnings. The reduced invested asset base was primarily the result of the negative net flows in our deferred annuities and life businesses. The decline was partially offset by invested asset growth from our long-term care business. The combined impact of the items affecting our business growth, partially offset by lower DAC amortization, resulted in a $103 million decrease in adjusted earnings.

Market Factors. Market factors, including interest rate levels, variability in equity market returns, and foreign currency exchange rate fluctuations, continued to impact our results; however, certain impacts were mitigated by derivatives used to hedge these risks. In our deferred annuity business, higher equity returns drove an increase in asset-based fee income and lower DAC amortization, increasing adjusted earnings. Investment yields decreased primarily due to lower yields on fixed income securities and lower returns on real estate investments. The decline in investment yields was partially offset by increased prepayment fees and higher returns on hedge funds. The changes in market factors discussed above resulted in a $17 million increase in adjusted earnings.

Underwriting, Actuarial Assumption Review, and Other Insurance Adjustments. Adjusted earnings decreased $47 million, primarily driven by less favorable underwriting in our traditional life business. The impact in 2019 and 2018 of our annual actuarial assumption review resulted in a net decrease of $160 million in adjusted earnings. Changes mainly in mortality, and economic and operational assumptions, including updates to closed block projections, were less favorable in 2019. Refinements to DAC and certain insurance-related liabilities that were recorded in 2019 and 2018 resulted in a $62 million decrease in adjusted earnings. This includes a 2019 charge due to an increase in our IBNR long-term care reserves, reflecting enhancements to our methodology related to potential claims, as well as the following 2018 refinements: (i) a favorable reserve adjustment relating to certain variable annuity guarantees assumed from a former joint venture in Japan; (ii) favorable reserve adjustments resulting from modeling improvements in our life business; and (iii) a charge due to an increase in our IBNR life reserves, reflecting enhancements to our processes related to potential claims.

Expenses. Adjusted earnings increased by $114 million due to declines in employee-related costs and lower operational expenses as a result of enterprise-wide initiatives.

Corporate & Other

	Years Ended December 31,	
	2019	2018
	(In millions)	
Adjusted revenues		
Premiums	$ 83	$ 118
Universal life and investment-type product policy fees	2	—
Net investment income	275	178
Other revenues	291	333
Total adjusted revenues	651	629
Adjusted expenses		
Policyholder benefits and claims and policyholder dividends	73	80
Capitalization of DAC	(12)	(8)
Amortization of DAC and VOBA	6	6
Interest expense on debt	934	1,032
Other expenses	1,074	907
Total adjusted expenses	2,075	2,017
Provision for income tax expense (benefit)	(1,201)	(825)
Adjusted earnings	(223)	(563)
Less: Preferred stock dividends	178	141
Adjusted earnings available to common shareholders	$ (401)	$ (704)

The table below presents adjusted earnings available to common shareholders by source:

	Years Ended December 31,	
	2019	2018
	(In millions)	
Business activities	$ 70	$ 41
Net investment income	290	263
Interest expense on debt	(978)	(1,076)
Corporate initiatives and projects	(563)	(405)
Other	(330)	(368)
Provision for income tax (expense) benefit and other tax-related items	1,288	982
Preferred stock dividends	(178)	(141)
Adjusted earnings available to common shareholders	$ (401)	$ (704)

Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018

Unless otherwise stated, all amounts discussed below are net of income tax.

Business Activities. Adjusted earnings from business activities increased $23 million. This was primarily related to improved results from certain of our businesses.

Net Investment Income. Variability in equity market results increased returns on both FVO Securities and equity-linked notes. In addition, lower losses on tax credit partnerships favorably impacted net investment income. These increases were partially offset by decreased income on fixed income securities, mortgage loans and lower returns on private equities and real estate investments, resulting in an increase of $21 million in net investment income.

Interest Expense on Debt. Interest expense on debt decreased by $77 million, primarily due to the exchange of senior notes for FVO Brighthouse Common Stock and the redemption of senior notes for cash in 2018, partially offset by a premium paid in excess of the debt principal and accrued and unpaid interest on senior notes redeemed in 2019.

Corporate Initiatives and Projects. Adjusted earnings decreased $125 million due to higher expenses associated with corporate initiatives and projects, most notably, costs associated with the continued investment in our unit cost initiative, partially offset by lower costs associated with certain other enterprise-wide initiatives.

Provision for Income Tax (Expense) Benefit and Other Tax-Related Items. A favorable change in Corporate & Other's effective tax rate was primarily due to tax benefits related to the resolution of an uncertainty regarding the deemed repatriation transition tax enacted as a part of U.S. Tax Reform. Additionally, 2019 and 2018 include benefits from the settlement of tax audits related to the tax treatment of a wholly-owned U.K. investment subsidiary of MLIC. The 2018 provision for income tax (expense) benefit and other tax related items also included a tax benefit from a non-cash transfer of assets from a wholly-owned U.K. investment subsidiary to its U.S. parent and a reduction in adjusted earnings related to certain tax impacts on tax credit partnership investments.

Other. Adjusted earnings increased $30 million, primarily as a result of lower interest expenses on certain tax positions, lower legal expenses and declines in various other expenses, partially offset by a loss related to the sale of a run-off business that was previously reinsured, as well as increases in certain corporate-related expenses.

Preferred Stock Dividends. Preferred stock dividends increased $37 million as a result of the issuance of MetLife, Inc.'s 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D ("Series D preferred stock") and MetLife, Inc.'s 5.625% Non-Cumulative Preferred Stock, Series E ("Series E preferred stock") in 2018.

Effects of Inflation

Management believes that inflation has not had a material effect on the Company's consolidated results of operations, except insofar as inflation may affect interest rates.

An increase in inflation could affect our business in several ways. During inflationary periods, the value of fixed income investments falls which could increase realized and unrealized losses. Inflation also increases expenses for labor and other materials, potentially putting pressure on profitability if such costs cannot be passed through in our product prices. Inflation could also lead to increased costs for losses and loss adjustment expenses in certain of our businesses, which could require us to adjust our pricing to reflect our expectations for future inflation. Prolonged and elevated inflation could adversely affect the financial markets and the economy generally, and dispelling it may require governments to pursue a restrictive fiscal and monetary policy, which could constrain overall economic activity, inhibit revenue growth and reduce the number of attractive investment opportunities.

Investments

Investment Risks

Our primary investment objective is to optimize, net of income tax, risk-adjusted net investment income and risk-adjusted total return while ensuring that assets and liabilities are managed on a cash flow and duration basis. The Investments Department, led by the Chief Investment Officer, manages investment risks using a risk control framework comprised of policies, procedures and limits, as discussed further below. The Investment Risk Committee and Asset-Liability Steering Committee review and monitor investment risk limits and tolerances.

We are exposed to the following primary sources of investment risks:

- credit risk, relating to the uncertainty associated with the continued ability of a given obligor to make timely payments of principal and interest;
- interest rate risk, relating to the market price and cash flow variability associated with changes in market interest rates. Changes in market interest rates will impact the net unrealized gain (loss) position of our fixed income investment portfolio and the rates of return we receive on both new funds invested and reinvestment of existing funds;
- liquidity risk, relating to the diminished ability to sell certain investments, in times of strained market conditions;
- market valuation risk, relating to the variability in the estimated fair value of investments associated with changes in market factors such as credit spreads and equity market levels. A widening of credit spreads will adversely impact the net unrealized gain (loss) position of the fixed income investment portfolio, will increase losses associated with credit-based non-qualifying derivatives where we assume credit exposure, and, if credit spreads widen significantly or for an extended period of time, will likely result in higher OTTI. Credit spread tightening will reduce net investment income associated with purchases of fixed income investments and will favorably impact the net unrealized gain (loss) position of the fixed income investment portfolio;
- currency risk, relating to the variability in currency exchange rates for foreign denominated investments including as a result of the U.K.'s withdrawal from the EU. This risk relates to potential decreases in estimated fair value and net investment income resulting from changes in currency exchange rates versus the U.S. dollar. In general, the weakening of foreign currencies versus the U.S. dollar will adversely affect the estimated fair value of our foreign denominated investments; and
- real estate risk, relating to commercial, agricultural and residential real estate, and stemming from factors, which include, but are not limited to, market conditions, including the supply and demand of leasable commercial space, creditworthiness of borrowers, tenants and our joint venture partners, capital markets volatility, changes in market interest rates, commodity prices, farm incomes and U.S. housing market conditions.

We manage investment risk through in-house fundamental credit analysis of the underlying obligors, issuers, transaction structures and real estate properties. We also manage credit, market and liquidity risk through industry and issuer diversification and asset allocation. These risk limits, approved annually by the Investment Risk Committee, promote diversification by asset sector, avoid concentrations in any single issuer and limit overall aggregate credit and equity risk exposure, as measured by our economic capital framework. For real estate assets, we manage credit and market risk through asset allocation and by diversifying by geography, property and product type. We manage interest rate risk as part of our ALM strategies which are reviewed and approved by the Asset-Liability Steering Committee. These strategies include maintaining an investment portfolio with diversified maturities that has a weighted average duration that reflects the duration of our estimated liability cash flow profile, and utilizing product design, such as the use of market value adjustment features and surrender charges, to manage interest rate risk. We also manage interest rate risk through proactive monitoring and management of certain NGEs of our products, such as the resetting of credited interest and dividend rates for policies that permit such adjustments. In addition to hedging with foreign currency derivatives, we manage currency risk by matching much of our foreign currency liabilities in our foreign subsidiaries with their respective foreign currency assets, thereby reducing our risk to foreign currency exchange rate fluctuation. We also use certain derivatives in the management of credit, interest rate, and market valuation risk.

We enter into market standard purchased and written credit default swap contracts. Payout under such contracts is triggered by certain credit events experienced by the referenced entities. For credit default swaps covering North American corporate issuers, credit events typically include bankruptcy and failure to pay on borrowed money. For European corporate issuers, credit events typically also include involuntary restructuring. With respect to credit default contracts on sovereign debt, credit events typically include failure to pay debt obligations, repudiation, moratorium, or involuntary restructuring. In each case, payout on a credit default swap is triggered only after the Credit Derivatives Determinations Committee of the International Swaps and Derivatives Association determines that a credit event has occurred.

We use purchased credit default swaps to mitigate credit risk in our investment portfolio. Generally, we purchase credit protection by entering into credit default swaps referencing the issuers of specific assets we own. In certain cases, basis risk exists between these credit default swaps and the specific assets we own. For example, we may purchase credit protection on a macro basis to reduce exposure to specific industries or other portfolio concentrations. In such instances, the referenced entities and obligations under the credit default swaps may not be identical to the individual obligors or securities in our investment portfolio. In addition, our purchased credit default swaps may have shorter tenors than the underlying investments they are hedging, which gives us more flexibility in managing our credit exposures. We believe that our purchased credit default swaps serve as effective economic hedges of our credit exposure.

Current Environment

As a global insurance company, we continue to be impacted by the changing global financial and economic environment, as well as the monetary policy of central banks around the world. See "— Industry Trends — Financial and Economic Environment." Measures taken by central banks, including with respect to the level of interest rates, may have an impact on the pricing levels of risk-bearing investments and may adversely impact our business operations, investment portfolio and derivatives. The current environment continues to impact our net investment income, net investment gains (losses), net derivative gains (losses), level of unrealized gains (losses) within the various asset classes in our investment portfolio, and our level of investment in lower yielding cash equivalents, short-term investments and government securities. See "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition."

Selected Country and Sector Investments

We have country-specific exposure to volatility as a result of our general account investments which support our insurance operations and related policyholder liabilities, as well as our global portfolio diversification objectives.

We also have sector-specific exposure to volatility, in the energy sector, as a result of variable oil prices.

Selected Country: The following table presents a summary of selected country fixed maturity securities AFS, at estimated fair value. The information below is presented on a "country of risk basis" (e.g. where the issuer primarily conducts business). Sovereign includes government and agency.

	Selected Country Fixed Maturity Securities AFS at December 31, 2019				
	Sovereign	Financial Services	Non-Financial Services	Structured	Total (1)
	(Dollars in millions)				
United Kingdom	$ 27	$ 5,295	$ 12,208	$ 133	$ 17,663
China	313	5	347	—	665
Hong Kong SAR	91	30	212	—	333
Argentina	256	3	17	—	276
Turkey	192	1	37	—	230
Total	$ 879	$ 5,334	$ 12,821	$ 133	$ 19,167
Investment grade %	49.0%	99.9%	96.3%	69.5%	94.9%

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(1) The par value and amortized cost of these selected country fixed maturity securities AFS were $17.7 billion and $18.2 billion, respectively, at December 31, 2019. Our exposure net of purchased credit default swaps was $19.1 billion at December 31, 2019. The notional value and estimated fair value of the purchased credit default swaps was $23 million and $2 million, respectively, at December 31, 2019.

Selected Sector: Our exposure to energy sector fixed maturity securities AFS was $10.0 billion, of which 89% were investment grade, with unrealized gains of $849 million at December 31, 2019. We maintain a diversified energy sector fixed maturities securities portfolio across sub-sectors and issuers. This portfolio comprised less than 3% of total investments at December 31, 2019.

We manage direct and indirect investment exposure in the selected countries and the energy sector through fundamental credit analysis and we continually monitor and adjust our level of investment exposure. We do not expect that our general account investments in these countries or the energy sector will have a material adverse effect on our results of operations or financial condition.

Investment Portfolio Results

The reconciliation of net investment income under GAAP to net investment income, as reported on an adjusted earnings basis, is presented below.

	For the Years Ended December 31,	
	2019	2018
	(In millions)	
Net investment income — GAAP basis	$ 18,868	$ 16,166
Investment hedge adjustments	469	475
Unit-linked contract income	(1,475)	683
Other	(32)	59
Net investment income, as reported on an adjusted basis (1)	$ 17,830	$ 17,383

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(1) See "Financial Measures and Segment Accounting Policies" in Note 2 of the Notes to the Consolidated Financial Statements for a discussion of the adjustments made to net investment income under GAAP in calculating net investment income, as reported on an adjusted basis.

The following yield table presentation is consistent with how we measure our investment performance for management purposes, and we believe it enhances understanding of our investment portfolio results.

	For the Years Ended December 31,			
	2019		2018	
	Yield% (1)	Amount	Yield% (1)	Amount
	(Dollars in millions)			
Fixed maturity securities AFS (2) (3)	4.22 %	$ 11,743	4.26 %	$ 11,678
Mortgage loans (3)	4.82 %	3,782	4.66 %	3,340
Real estate and real estate joint ventures	3.20 %	327	3.59 %	352
Policy loans	5.29 %	512	5.21 %	506
Equity securities	5.25 %	61	4.79 %	64
Other limited partnership interests	11.81 %	840	12.97 %	792
Cash and short-term investments	2.47 %	256	2.41 %	244
Other invested assets		901		887
Investment income	4.56 %	18,422	4.56 %	17,863
Investment fees and expenses	(0.14)	(545)	(0.12)	(479)
Net investment income including divested businesses (4)	4.42 %	17,877	4.44 %	17,384
Less: net investment income from divested businesses (4)		47		1
Net investment income, as reported on an adjusted basis		$ 17,830		$ 17,383

(1) We calculate yields using average quarterly asset carrying values. Yields exclude recognized gains (losses) and include the impact of changes in foreign currency exchange rates. Asset carrying values exclude unrealized gains (losses), collateral received in connection with our securities lending program, annuities funding structured settlement claims, freestanding derivative assets, collateral received from derivative counterparties, the effects of consolidating under GAAP certain variable interest entities that are treated as consolidated securitization entities ("CSEs") and contractholder-directed equity securities. A yield is not presented for other invested assets, as it is not considered a meaningful measure of performance for this asset class.

(2) Investment income from fixed maturity securities AFS includes amounts from FVO Securities of $184 million and $51 million for the years ended December 31, 2019 and 2018, respectively.

(3) Investment income from fixed maturity securities AFS and mortgage loans includes prepayment fees.

(4) See "Financial Measures and Segment Accounting Policies" in Note 2 of the Notes to the Consolidated Financial Statements for discussion of divested businesses.

See "— Results of Operations — Consolidated Results — Adjusted Earnings" for an analysis of the period over period changes in investment portfolio results.

Fixed Maturity Securities AFS and Equity Securities

The following table presents fixed maturity securities AFS and equity securities by type (public or private) and information about perpetual and redeemable securities held at:

	December 31, 2019		December 31, 2018	
	Estimated Fair Value	% of Total	Estimated Fair Value	% of Total
	(Dollars in millions)			
Fixed maturity securities AFS				
Publicly-traded	$ 267,617	81.6 %	$ 249,595	83.7 %
Privately-placed	60,203	18.4	48,670	16.3
Total fixed maturity securities AFS	$ 327,820	100.0 %	$ 298,265	100.0 %
Percentage of cash and invested assets	66.8%		66.0%	
Equity securities				
Publicly-traded	$ 1,156	86.1 %	$ 1,282	89 %
Privately-held	186	13.9	158	11
Total equity securities	$ 1,342	100.0 %	$ 1,440	100.0 %
Percentage of cash and invested assets	0.3%		0.3%	
Perpetual and redeemable securities				
Perpetual securities included within fixed maturity securities AFS and equity securities	$ 363		$ 367	
Redeemable preferred stock with a stated maturity included within fixed maturity securities AFS	$ 960		$ 911	

Included within fixed maturity securities AFS are structured securities including residential mortgage-backed securities (“RMBS”), ABS and commercial mortgage-backed securities (“CMBS”) (collectively, “Structured Products”).

Perpetual securities are included within fixed maturity securities AFS and equity securities. Upon acquisition, we classify perpetual securities that have attributes of both debt and equity as fixed maturity securities AFS if the securities have an interest rate step-up feature which, when combined with other qualitative factors, indicates that the securities have more debt-like characteristics; while those with more equity-like characteristics are classified as equity securities. Many of such securities, commonly referred to as “perpetual hybrid securities,” have been issued by non-U.S. financial institutions that are accorded the highest two capital treatment categories by their respective regulatory bodies (i.e. core capital, or “Tier 1 capital” and perpetual deferrable securities, or “Upper Tier 2 capital”).

Redeemable preferred stock with a stated maturity is included within fixed maturity securities AFS. These securities, which are commonly referred to as “capital securities,” primarily have cumulative interest deferral features and are primarily issued by U.S. financial institutions.

Valuation of Securities. We are responsible for the determination of the estimated fair value of our investments. We determine the estimated fair value of publicly-traded securities after considering one of three primary sources of information: quoted market prices in active markets, independent pricing services, or independent broker quotations. We determine the estimated fair value of privately-placed securities after considering one of three primary sources of information: market standard internal matrix pricing, market standard internal discounted cash flow techniques, or independent pricing services (after we determine the independent pricing services' use of available observable market data). For publicly-traded securities, the number of quotations obtained varies by instrument and depends on the liquidity of the particular instrument. Generally, we obtain prices from multiple pricing services to cover all asset classes and obtain multiple prices for certain securities, but ultimately utilize the price with the highest placement in the fair value hierarchy. Independent pricing services that value these instruments use market standard valuation methodologies based on data about market transactions and inputs from multiple pricing sources that are market observable or can be derived principally from or corroborated by observable market data. See Note 10 of the Notes to the Consolidated Financial Statements for a discussion of the types of market standard valuation methodologies utilized and key assumptions and observable inputs used in applying these standard valuation methodologies. When a price is not available in the active market or through an independent pricing service, management values the security primarily using market standard internal matrix pricing or discounted cash flow techniques, and non-binding quotations from independent brokers who are knowledgeable about these securities. Independent non-binding broker quotations utilize inputs that may be difficult to corroborate with observable market data. As shown in the following section, less than 1% of our fixed maturity securities AFS were valued using non-binding quotations from independent brokers at December 31, 2019.

Senior management, independent of the trading and investing functions, is responsible for the oversight of control systems and valuation policies for securities, mortgage loans and derivatives. On a quarterly basis, new transaction types and markets are reviewed and approved to ensure that observable market prices and market-based parameters are used for valuation, wherever possible, and for determining that valuation adjustments, when applied, are based upon established policies and are applied consistently over time. Senior management oversees the selection of independent third-party pricing providers and the controls and procedures to evaluate third-party pricing.

We review our valuation methodologies on an ongoing basis and revise those methodologies when necessary based on changing market conditions. Assurance is gained on the overall reasonableness and consistent application of input assumptions, valuation methodologies and compliance with fair value accounting standards through controls designed to ensure valuations represent an exit price. Several controls are utilized, including certain monthly controls, which include, but are not limited to, analysis of portfolio returns to corresponding benchmark returns, comparing a sample of executed prices of securities sold to the fair value estimates, comparing fair value estimates to management's knowledge of the current market, reviewing the bid/ask spreads to assess activity, comparing prices from multiple independent pricing services and ongoing due diligence to confirm that independent pricing services use market-based parameters. The process includes a determination of the observability of inputs used in estimated fair values received from independent pricing services or brokers by assessing whether these inputs can be corroborated by observable market data. We ensure that prices received from independent brokers, also referred to herein as "consensus pricing," are representative of estimated fair value by considering such pricing relative to our knowledge of the current market dynamics and current pricing for similar financial instruments. While independent non-binding broker quotations are utilized, they are not used for a significant portion of the portfolio.

We also apply a formal process to challenge any prices received from independent pricing services that are not considered representative of estimated fair value. If prices received from independent pricing services are not considered reflective of market activity or representative of estimated fair value, independent non-binding broker quotations are obtained, or an internally developed valuation is prepared. Internally developed valuations of current estimated fair value, compared with pricing received from the independent pricing services, did not produce material differences in the estimated fair values for the majority of the portfolio; accordingly, overrides were not material. This is, in part, because internal estimates are generally based on available market evidence and estimates used by other market participants. In the absence of such market-based evidence, management's best estimate is used.

We have reviewed the significance and observability of inputs used in the valuation methodologies to determine the appropriate fair value hierarchy level for each of our securities. Based on the results of this review and investment class analysis, each instrument is categorized as Level 1, 2 or 3 based on the lowest level significant input to its valuation. See Note 10 of the Notes to the Consolidated Financial Statements for information regarding the valuation techniques and inputs by level within the three-level fair value hierarchy by major classes of invested assets.

Fair Value of Fixed Maturity Securities AFS and Equity Securities

Fixed maturity securities AFS and equity securities measured at estimated fair value on a recurring basis and their corresponding fair value pricing sources are as follows:

	December 31, 2019			
	Fixed Maturity Securities AFS		Equity Securities	
	(Dollars in millions)			
Level 1				
Quoted prices in active markets for identical assets	$ 21,061	6.4%	$ 794	59.2%
Level 2				
Independent pricing sources	287,218	87.7	80	6.0
Internal matrix pricing or discounted cash flow techniques	730	0.2	38	2.8
Significant other observable inputs	287,948	87.9	118	8.8
Level 3				
Independent pricing sources	15,737	4.8	281	20.9
Internal matrix pricing or discounted cash flow techniques	2,637	0.8	143	10.7
Independent broker quotations	437	0.1	6	0.4
Significant unobservable inputs	18,811	5.7	430	32.0
Total estimated fair value	$ 327,820	100.0%	$ 1,342	100.0%

See Note 10 of the Notes to the Consolidated Financial Statements for the fixed maturity securities AFS and equity securities fair value hierarchy.

The majority of the Level 3 fixed maturity securities AFS and equity securities were concentrated in three sectors at December 31, 2019: foreign corporate securities, U.S. corporate securities and RMBS. During the year ended December 31, 2019, Level 3 fixed maturity securities AFS increased by $4.0 billion, or 26%, as compared to the prior year. The increase was driven by purchases in excess of sales and by an increase in estimated fair value recognized in other comprehensive income (loss), partially offset by transfers out of Level 3 in excess of transfers into Level 3.

See "— Fixed Maturity Securities AFS and Equity Securities — Valuation of Securities" for further information regarding the composition of fair value pricing sources for securities. See Note 10 of the Notes to the Consolidated Financial Statements for a rollforward of the fair value measurements for securities measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs; transfers into and/or out of Level 3; and further information about the valuation approaches and inputs by level by major classes of invested assets that affect the amounts reported above.

Fixed Maturity Securities AFS

See Notes 1 and 8 of the Notes to the Consolidated Financial Statements for information about fixed maturity securities AFS by sector, contractual maturities and continuous gross unrealized losses.

Fixed Maturity Securities AFS Credit Quality — Ratings

The Securities Valuation Office of the NAIC evaluates the fixed maturity security investments of insurers for regulatory reporting and capital assessment purposes and assigns securities to one of six credit quality categories called "NAIC designations." If no designation is available from the NAIC, then, as permitted by the NAIC, an internally developed designation is used. The NAIC designations are generally similar to the credit quality ratings of the NRSRO for fixed maturity securities AFS, except for certain non-agency RMBS and CMBS as described below. Rating agency ratings are based on availability of applicable ratings from rating agencies on the NAIC credit rating provider list, including Moody's Investor Service ("Moody's"), S&P, Fitch Ratings ("Fitch"), Dominion Bond Rating Service, A.M. Best Company ("A.M. Best"), Kroll Bond Rating Agency, Egan Jones Ratings Company and Morningstar Credit Ratings, LLC ("Morningstar"). If no rating is available from a rating agency, then an internally developed rating is used.

The NAIC has adopted revised methodologies for non-agency RMBS, and CMBS. The NAIC's objective with the revised methodologies for non-agency RMBS and CMBS was to increase the accuracy in assessing expected losses, and to use the improved assessment to determine a more appropriate capital requirement for non-agency RMBS and CMBS. The revised methodologies reduce regulatory reliance on rating agencies and allow for greater regulatory input into the assumptions used to estimate expected losses from non-agency RMBS and CMBS. We apply the revised NAIC methodologies to non-agency RMBS and CMBS held by MetLife, Inc.'s insurance subsidiaries that maintain the NAIC statutory basis of accounting. The NAIC's present methodology is to evaluate non-agency RMBS and CMBS held by insurers using the revised NAIC methodologies on an annual basis. If MetLife, Inc.'s insurance subsidiaries acquire non-agency RMBS and CMBS that have not been previously evaluated by the NAIC, but are expected to be evaluated by the NAIC in the upcoming annual review, an internally developed designation is used until a NAIC designation becomes available. NAIC designations may not correspond to NRSRO ratings.

The following table presents total fixed maturity securities AFS by NRSRO rating and the applicable NAIC designation from the NAIC published comparison of NRSRO ratings to NAIC designations, except for non-agency RMBS and CMBS, which are presented using the revised NAIC methodologies, as well as the percentage, based on estimated fair value that each NAIC designation is comprised of at:

		December 31,							
		2019				2018			
NAIC Designation	NRSRO Rating	Amortized Cost	Unrealized Gain (Loss)	Estimated Fair Value	% of Total	Amortized Cost	Unrealized Gain (Loss)	Estimated Fair Value	% of Total
		(Dollars in millions)							
1	Aaa/Aa/A	$ 207,742	$ 22,966	$ 230,708	70.4 %	$ 197,604	$ 11,202	$ 208,806	70.0 %
2	Baa	74,568	6,857	81,425	24.8	72,482	659	73,141	24.5
	Subtotal investment grade	282,310	29,823	312,133	95.2	270,086	11,861	281,947	94.5
3	Ba	11,210	442	11,652	3.6	11,249	(91)	11,158	3.7
4	B	3,297	40	3,337	1.0	4,745	(247)	4,498	1.6
5	Caa and lower	832	(139)	693	0.2	720	(73)	647	0.2
6	In or near default	6	(1)	5	—	16	(1)	15	—
	Subtotal below investment grade	15,345	342	15,687	4.8	16,730	(412)	16,318	5.5
	Total fixed maturity securities AFS	$ 297,655	$ 30,165	$ 327,820	100.0 %	$ 286,816	$ 11,449	$ 298,265	100.0 %

The following tables present total fixed maturity securities AFS, based on estimated fair value, by sector classification and by NRSRO rating and the applicable NAIC designations from the NAIC published comparison of NRSRO ratings to NAIC designations, except for non-agency RMBS and CMBS, which are presented using the revised NAIC methodologies:

	Fixed Maturity Securities AFS — by Sector & Credit Quality Rating						
NAIC Designation:	**1**	**2**	**3**	**4**	**5**	**6**	**Total Estimated Fair Value**
NRSRO Rating:	**Aaa/Aa/A**	**Baa**	**Ba**	**B**	**Caa and Lower**	**In or Near Default**	
	(Dollars in millions)						
December 31, 2019							
U.S. corporate	$ 41,504	$ 37,915	$ 5,760	$ 2,199	$ 374	$ 1	$ 87,753
Foreign government	58,325	5,866	2,383	392	263	—	67,229
Foreign corporate	26,078	34,674	2,810	556	47	—	64,165
U.S. government and agency	41,577	507	—	—	—	—	42,084
RMBS	27,957	403	102	75	7	3	28,547
ABS	12,727	1,339	448	25	2	1	14,542
Municipals	12,397	624	32	—	—	—	13,053
CMBS	10,143	97	117	90	—	—	10,447
Total fixed maturity securities AFS	$ 230,708	$ 81,425	$ 11,652	$ 3,337	$ 693	$ 5	$ 327,820
Percentage of total	70.4%	24.8%	3.6%	1.0%	0.2%	—%	100.0%
December 31, 2018							
U.S. corporate	$ 34,363	$ 35,081	$ 5,850	$ 3,102	$ 544	$ 8	$ 78,948
Foreign government	54,149	5,140	2,389	604	5	1	62,288
Foreign corporate	22,602	30,849	2,534	669	49	—	56,703
U.S. government and agency	38,915	407	—	—	—	—	39,322
RMBS	27,370	350	138	94	3	6	27,961
ABS	11,467	772	204	26	3	—	12,472
Municipals	11,056	439	38	—	—	—	11,533
CMBS	8,884	103	5	3	43	—	9,038
Total fixed maturity securities AFS	$ 208,806	$ 73,141	$ 11,158	$ 4,498	$ 647	$ 15	$ 298,265
Percentage of total	70.0%	24.5%	3.7%	1.6%	0.2%	—%	100.0%

U.S. and Foreign Corporate Fixed Maturity Securities AFS

We maintain a diversified portfolio of corporate fixed maturity securities AFS across industries and issuers. This portfolio does not have any exposure to any single issuer in excess of 1% of total investments and the top 10 holdings comprised 2% and 1% of total investments at December 31, 2019 and 2018, respectively. The tables below present our U.S. and foreign corporate securities holdings by industry at:

	December 31,			
	2019		**2018**	
	Estimated Fair Value	**% of Total**	**Estimated Fair Value**	**% of Total**
	(Dollars in millions)			
Industrial	$ 46,018	30.3%	$ 40,556	29.9%
Finance	34,776	22.9	30,546	22.5
Consumer	31,952	21.0	30,140	22.2
Utility	25,763	17.0	22,206	16.4
Communications	11,471	7.5	10,406	7.7
Other	1,938	1.3	1,797	1.3
Total	$ 151,918	100.0%	$ 135,651	100.0%

Structured Products

We held $53.5 billion and $49.5 billion of Structured Products, at estimated fair value, at December 31, 2019 and 2018, respectively, as presented in the RMBS, ABS and CMBS sections below.

RMBS

Our RMBS portfolio is diversified by security type and risk profile. The following table presents our RMBS portfolio by security type, risk profile and ratings profile at:

	December 31,					
	2019			2018		
	Estimated Fair Value	% of Total	Net Unrealized Gains (Losses)	Estimated Fair Value	% of Total	Net Unrealized Gains (Losses)
	(Dollars in millions)					
By security type:						
Collateralized mortgage obligations	$ 16,315	57.2%	$ 1,185	$ 15,302	54.7%	$ 726
Pass-through mortgage-backed securities	12,232	42.8	311	12,659	45.3	(174)
Total RMBS	$ 28,547	100.0%	$ 1,496	$ 27,961	100.0%	$ 552
By risk profile:						
Agency	$ 19,563	68.5%	$ 797	$ 19,834	70.9%	$ 5
Prime	1,142	4.0	48	1,123	4.0	47
Alt-A	3,323	11.7	347	3,361	12.0	277
Sub-prime	4,519	15.8	304	3,643	13.1	223
Total RMBS	$ 28,547	100.0%	$ 1,496	$ 27,961	100.0%	$ 552
Ratings profile:						
Rated Aaa/AAA	$ 21,122	74.0%		$ 20,666	73.9%	
Designated NAIC 1	$ 27,957	97.9%		$ 27,370	97.9%	

Collateralized mortgage obligations are structured by dividing the cash flows of mortgage loans into separate pools or tranches of risk that create multiple classes of bonds with varying maturities and priority of payments. Pass-through mortgage-backed securities are secured by a mortgage loan or collection of mortgage loans. The monthly mortgage loan payments from homeowners pass from the originating bank through an intermediary, such as a government agency or investment bank, which collects the payments and, for a fee, remits or passes these payments through to the holders of the pass-through securities.

The majority of our RMBS holdings were rated Aaa/AAA by Moody's, S&P or Fitch; and were designated NAIC 1 by the NAIC at December 31, 2019 and 2018. Agency RMBS were guaranteed or otherwise supported by Federal National Mortgage Association, Federal Home Loan Mortgage Corporation or Government National Mortgage Association. Non-agency RMBS include prime, alternative residential mortgage loans ("Alt-A") and sub-prime RMBS. Prime residential mortgage lending includes the origination of residential mortgage loans to the most creditworthy borrowers with high quality credit profiles. Alt-A is a classification of mortgage loans where the risk profile of the borrower is between prime and sub-prime. Sub-prime mortgage lending is the origination of residential mortgage loans to borrowers with weak credit profiles.

Historically, we have managed our exposure to sub-prime RMBS holdings by focusing primarily on senior tranche securities, stress testing the portfolio with severe loss assumptions and closely monitoring the performance of the portfolio. Our sub-prime RMBS portfolio consists predominantly of securities that were purchased after 2012 at significant discounts to par value and discounts to the expected principal recovery value of these securities. The vast majority of these securities are investment grade under the NAIC designations (e.g., NAIC 1 and NAIC 2).

ABS

Our ABS portfolio is diversified by collateral type and issuer. The following table presents our ABS portfolio by collateral type and ratings profile at:

	December 31,					
	2019			2018		
	Estimated Fair Value	% of Total	Net Unrealized Gains (Losses)	Estimated Fair Value	% of Total	Net Unrealized Gains (Losses)
	(Dollars in millions)					
By collateral type:						
Collateralized obligations (1)	$ 7,974	54.8%	$ (54)	$ 6,724	53.9%	$ (112)
Student loans	1,350	9.3	(5)	1,256	10.1	13
Consumer loans	1,181	8.1	9	580	4.7	4
Foreign residential loans	1,088	7.5	14	1,066	8.5	11
Automobile loans	813	5.6	7	895	7.2	1
Credit card loans	454	3.1	4	668	5.3	—
Other loans	1,682	11.6	20	1,283	10.3	3
Total	$ 14,542	100.0%	$ (5)	$ 12,472	100.0%	$ (80)
Ratings profile:						
Rated Aaa/AAA	$ 7,711	53.0%		$ 7,142	57.3%	
Designated NAIC 1	$ 12,727	87.5%		$ 11,467	91.9%	

(1) Includes primarily collateralized loan obligations.

CMBS

Our CMBS portfolio is comprised primarily of securities collateralized by multiple commercial mortgage loans and our portfolio is diversified by property type, borrower, geography and vintage year. The following tables present our CMBS portfolio by NRSRO rating and vintage year at:

	December 31, 2019											
	Aaa		Aa		A		Baa		Below Investment Grade		Total	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
	(Dollars in millions)											
2003 - 2012	$ 402	$ 424	$ 335	$ 341	$ 121	$ 123	$ 7	$ 7	$ —	$ —	$ 865	$ 895
2013	707	745	638	666	247	253	30	29	52	41	1,674	1,734
2014	372	389	486	502	114	119	—	—	—	—	972	1,010
2015	419	436	65	67	31	33	—	—	—	—	515	536
2016	285	298	71	73	55	56	—	—	—	—	411	427
2017	668	689	589	608	181	182	—	—	—	—	1,438	1,479
2018	1,713	1,804	704	739	240	249	22	22	—	—	2,679	2,814
2019	744	754	143	143	652	655	—	—	—	—	1,539	1,552
Total	$ 5,310	$ 5,539	$ 3,031	$ 3,139	$ 1,641	$ 1,670	$ 59	$ 58	$ 52	$ 41	$ 10,093	$ 10,447
Ratings Distribution		53.0%		30.0%		16.0%		0.6%		0.4%		100.0%

	December 31, 2018											
	Aaa		Aa		A		Baa		Below Investment Grade		Total	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
	(Dollars in millions)											
2003 - 2012	$ 488	$ 508	$ 266	$ 264	$ 229	$ 227	$ 7	$ 6	$ —	$ —	$ 990	$ 1,005
2013	723	746	644	655	279	277	—	—	59	43	1,705	1,721
2014	381	379	488	485	128	127	—	—	—	—	997	991
2015	523	514	81	80	34	34	—	—	—	—	638	628
2016	345	339	84	80	46	46	—	—	—	—	475	465
2017	862	851	666	654	234	228	39	39	—	—	1,801	1,772
2018	1,434	1,445	690	695	292	293	23	23	—	—	2,439	2,456
Total	$ 4,756	$ 4,782	$ 2,919	$ 2,913	$ 1,242	$ 1,232	$ 69	$ 68	$ 59	$ 43	$ 9,045	$ 9,038
Ratings Distribution		52.9%		32.2%		13.6%		0.8%		0.5%		100.0%

The tables above reflect NRSRO ratings including Moody's, S&P, Fitch and Morningstar. CMBS designated NAIC 1 were 97.1% and 98.3% of total CMBS at December 31, 2019 and 2018, respectively.

Evaluation of Fixed Maturity Securities AFS for OTTI and Evaluating Temporarily Impaired Fixed Maturity Securities AFS

See Note 8 of the Notes to the Consolidated Financial Statements for information about the evaluation of fixed maturity securities AFS for OTTI and evaluation of temporarily impaired fixed maturity securities AFS.

OTTI Losses on Fixed Maturity Securities AFS Recognized in Earnings

See Note 8 of the Notes to the Consolidated Financial Statements for information about OTTI losses and gross gains and gross losses on fixed maturity securities AFS sold.

Fixed Maturity Securities AFS OTTI Losses Recognized in Earnings

Overall OTTI losses recognized in earnings on fixed maturity securities AFS were $129 million for the year ended December 31, 2019, as compared to $40 million for the year ended December 31, 2018. The most significant increase in OTTI losses was in foreign government securities, which comprised $81 million for the year ended December 31, 2019, as compared to $9 million for the year ended December 31, 2018. An increase of $72 million in OTTI losses was concentrated in Argentine foreign government securities and was due to the weakening of the Argentine peso and issuer specific concerns.

Future Impairments

Future impairments on fixed maturity securities AFS will depend primarily on economic fundamentals, issuer performance (including changes in the present value of future cash flows expected to be collected), changes in credit ratings, and collateral valuation. If economic fundamentals deteriorate or if there are adverse changes in the above factors, credit losses may be incurred in upcoming periods. See Note 1 of the Notes to the Consolidated Financial Statements for a description of new guidance to be adopted in 2020 regarding the measurement of credit losses on financial instruments.

Contractholder-Directed Equity Securities and Fair Value Option Securities

The estimated fair value of these investments, which are primarily comprised of Unit-linked investments, was $13.1 billion and $12.6 billion, or 2.7% and 2.8% of cash and invested assets, at December 31, 2019 and 2018, respectively. See Notes 1 and 10 of the Notes to the Consolidated Financial Statements for a description of this portfolio, its fair value hierarchy and a rollforward of the fair value measurements for these investments measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs.

Securities Lending, Repurchase Agreements and FHLB of Boston Advance Agreements

We participate in a securities lending program whereby securities are loaned to third parties, primarily brokerage firms and commercial banks. We also participate in short-term repurchase agreement transactions with unaffiliated financial institutions. In addition, a subsidiary of the Company has entered into short-term advance agreements with the FHLB of Boston. See "— Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Securities Lending and Repurchase Agreements" and Notes 1 and 8 of the Notes to the Consolidated Financial Statements for further information.

Mortgage Loans

Our mortgage loans held-for-investment are principally collateralized by commercial, agricultural and residential properties. Mortgage loans held-for-investment are carried at amortized cost and the related valuation allowances are summarized as follows at:

	December 31,							
	2019				2018			
	Recorded Investment	% of Total	Valuation Allowance	% of Recorded Investment	Recorded Investment	% of Total	Valuation Allowance	% of Recorded Investment
	(Dollars in millions)							
Commercial	$ 49,624	61.5%	$ 246	0.5%	$ 48,463	63.9%	$ 238	0.5%
Agricultural	16,695	20.7	52	0.3%	14,905	19.7	46	0.3%
Residential	14,316	17.8	55	0.4%	12,427	16.4	58	0.5%
Total	$ 80,635	100.0%	$ 353	0.4%	$ 75,795	100.0%	$ 342	0.5%

The carrying value of all mortgage loans, net of valuation allowance, was 16.4% and 16.8% of cash and invested assets at December 31, 2019 and 2018, respectively.

We diversify our mortgage loan portfolio by both geographic region and property type to reduce the risk of concentration. Of our commercial and agricultural mortgage loan held-for-investment portfolios, 83% are collateralized by properties located in the United States, with the remaining 17% collateralized by properties located outside the United States, which includes 5% of properties located in the U.K., at December 31, 2019. The carrying values of our commercial and agricultural mortgage loans held-for-investment located in California, New York and Texas were 18%, 11% and 7%, respectively, of total commercial and agricultural mortgage loans held-for-investment at December 31, 2019. Additionally, we manage risk when originating commercial and agricultural mortgage loans by generally lending up to 75% of the estimated fair value of the underlying real estate collateral.

We manage our residential mortgage loan held-for-investment portfolio in a similar manner to reduce risk of concentration, with 93% collateralized by properties located in the United States, and the remaining 7% collateralized by properties located outside the United States, at December 31, 2019. The carrying values of our residential mortgage loans located in California, Florida, and New York were 33%, 9%, and 6%, respectively, of total residential mortgage loans at December 31, 2019.

Commercial Mortgage Loans by Geographic Region and Property Type. Commercial mortgage loans are the largest component of the mortgage loan invested asset class. The tables below present the diversification across geographic regions and property types of commercial mortgage loans held-for-investment at:

	December 31,			
	2019		2018	
	Amount	% of Total	Amount	% of Total
	(Dollars in millions)			
Region				
Pacific	$ 10,169	20.5%	$ 10,884	22.5%
Non-U.S.	10,093	20.3	9,281	19.1
Middle Atlantic	8,302	16.7	7,911	16.3
South Atlantic	6,487	13.1	6,347	13.1
West South Central	4,255	8.6	3,951	8.1
East North Central	3,066	6.2	2,840	5.9
Mountain	1,602	3.2	1,387	2.9
New England	1,433	2.9	1,481	3.1
West North Central	607	1.2	594	1.2
East South Central	502	1.0	564	1.2
Multi-Region and Other	3,108	6.3	3,223	6.6
Total recorded investment	49,624	100.0%	48,463	100.0%
Less: valuation allowances	246		238	
Carrying value, net of valuation allowances	$ 49,378		$ 48,225	
Property Type				
Office	$ 22,925	46.2%	$ 23,995	49.5%
Retail	9,052	18.2	9,089	18.7
Apartment	8,212	16.6	7,018	14.5
Industrial	3,985	8.0	3,719	7.7
Hotel	3,471	7.0	3,479	7.2
Other	1,979	4.0	1,163	2.4
Total recorded investment	49,624	100.0%	48,463	100.0%
Less: valuation allowances	246		238	
Carrying value, net of valuation allowances	$ 49,378		$ 48,225	

Mortgage Loan Credit Quality — Monitoring Process. We monitor our mortgage loan investments on an ongoing basis, including a review of loans that are current, past due, restructured and under foreclosure. See Note 8 of the Notes to the Consolidated Financial Statements for further information regarding mortgage loans by credit quality indicator, past due and nonaccrual mortgage loans and impaired mortgage loans.

We review our commercial mortgage loans on an ongoing basis. These reviews may include an analysis of the property financial statements and rent roll, lease rollover analysis, property inspections, market analysis, estimated valuations of the underlying collateral, loan-to-value ratios, debt service coverage ratios and tenant creditworthiness. The monitoring process focuses on higher risk loans, which include those that are classified as restructured, delinquent or in foreclosure, as well as loans with higher loan-to-value ratios and lower debt service coverage ratios. The monitoring process for agricultural mortgage loans is generally similar, with a focus on higher risk loans, such as loans with higher loan-to-value ratios, including reviews on a geographic and sector basis. We review our residential mortgage loans on an ongoing basis. See Note 8 of the Notes to the Consolidated Financial Statements for information on our evaluation of residential mortgage loans and related valuation allowance methodology.

Loan-to-value ratios and debt service coverage ratios are common measures in the assessment of the quality of commercial mortgage loans. Loan-to-value ratios are a common measure in the assessment of the quality of agricultural mortgage loans. Loan-to-value ratios compare the amount of the loan to the estimated fair value of the underlying collateral. A loan-to-value ratio greater than 100% indicates that the loan amount is greater than the collateral value. A loan-to-value ratio of less than 100% indicates an excess of collateral value over the loan amount. Generally, the higher the loan-to-value ratio, the higher the risk of experiencing a credit loss. The debt service coverage ratio compares a property's net operating income to amounts needed to service the principal and interest due under the loan. Generally, the lower the debt service coverage ratio, the higher the risk of experiencing a credit loss. For our commercial mortgage loans, our average loan-to-value ratio was 55% at both December 31, 2019 and 2018, and our average debt service coverage ratio was 2.4x and 2.5x at December 31, 2019 and 2018, respectively. The debt service coverage ratio, as well as the values utilized in calculating the ratio, is updated annually on a rolling basis, with a portion of the portfolio updated each quarter. In addition, the loan-to-value ratio is routinely updated for all but the lowest risk loans as part of our ongoing review of our commercial mortgage loan portfolio. For our agricultural mortgage loans, our average loan-to-value ratio was 47% and 46% at December 31, 2019 and 2018, respectively. The values utilized in calculating the agricultural mortgage loan loan-to-value ratio are developed in connection with the ongoing review of the agricultural loan portfolio and are routinely updated.

Mortgage Loan Valuation Allowances. Our valuation allowances are established both on a loan specific basis for those loans considered impaired where a property specific or market specific risk has been identified that could likely result in a future loss, as well as for pools of loans with similar risk characteristics where a property specific or market specific risk has not been identified, but for which we expect to incur a loss. Accordingly, a valuation allowance is provided to absorb these estimated probable credit losses.

The determination of the amount of valuation allowances is based upon our periodic evaluation and assessment of known and inherent risks associated with our loan portfolios. Such evaluations and assessments are based upon several factors, including our experience for loan losses, defaults and loss severity, and loss expectations for loans with similar risk characteristics. These evaluations and assessments are revised as conditions change and new information becomes available, which can cause the valuation allowances to increase or decrease over time as such evaluations are revised. Negative credit migration, including an actual or expected increase in the level of problem loans, will result in an increase in the valuation allowance. Positive credit migration, including an actual or expected decrease in the level of problem loans, will result in a decrease in the valuation allowance.

See Note 1 of the Notes to the Consolidated Financial Statements for a description of new guidance to be adopted in 2020 regarding the measurement of credit losses on financial instruments.

See Note 8 of the Notes to the Consolidated Financial Statements for information about how valuation allowances are established and monitored and activity in and balances of the valuation allowance as of and for the years ended December 31, 2019, 2018 and 2017.

Real Estate and Real Estate Joint Ventures

Real estate and real estate joint ventures is comprised of wholly-owned real estate and joint ventures with interests in single property income-producing real estate, and to a lesser extent joint ventures with interests in multi-property projects with varying strategies ranging from the development of properties to the operation of income-producing properties, as well as a runoff portfolio. The carrying values of real estate and real estate joint ventures was $10.7 billion and $9.7 billion, or 2.2% and 2.1% of cash and invested assets, at December 31, 2019 and 2018, respectively.

Impairments recognized on real estate and real estate joint ventures were $10 million for the year ended December 31, 2019. There were no impairments for the year ended December 31, 2018.

We diversify our real estate investments by both geographic region and property type to reduce risk of concentration.

Geographical diversification: Of our real estate investments, excluding funds, 61% were located in the United States, with the remaining 39% located outside the United States, at December 31, 2019. The carrying value of our real estate investments, excluding funds, located in Japan, California and Washington, D.C. were 34%, 11% and 10%, respectively, of total real estate investments, excluding funds, at December 31, 2019. Real estate funds were 24% of our real estate investments at December 31, 2019. The majority of these funds hold underlying real estate investments that are well diversified across the United States.

Property type diversification: Real estate and real estate joint venture investments by property type are categorized by sector as follows at:

	December 31,			
	2019		2018	
	Carrying Value	% of Total	Carrying Value	% of Total
	(Dollars in millions)			
Office	$ 3,678	34.2%	$ 3,922	40.4%
Real estate funds	2,539	23.6	1,921	19.8
Retail	1,260	11.7	1,206	12.4
Apartment	1,211	11.3	872	9.0
Land	669	6.2	676	7.0
Hotel	599	5.6	555	5.7
Industrial	393	3.7	307	3.2
Agriculture	21	0.2	27	0.3
Other	371	3.5	212	2.2
Total real estate and real estate joint ventures	$ 10,741	100.0%	$ 9,698	100.0%

Other Limited Partnership Interests

Other limited partnership interests are comprised of investments in private funds, including private equity funds and hedge funds. At December 31, 2019 and 2018, the carrying value of other limited partnership interests was $7.7 billion and $6.6 billion, which included $575 million and $634 million of hedge funds, respectively. Other limited partnership interests were 1.6% and 1.5% of cash and invested assets at December 31, 2019 and 2018, respectively. Cash distributions on these investments are generated from investment gains, operating income from the underlying investments of the funds and liquidation of the underlying investments of the funds.

Other Invested Assets

The following table presents the carrying value of our other invested assets by type at:

	December 31,			
	2019		2018	
	Carrying Value	% of Total	Carrying Value	% of Total
	(Dollars in millions)			
Freestanding derivatives with positive estimated fair values	$ 10,084	53.0%	$ 8,969	49.3%
Tax credit and renewable energy partnerships	1,993	10.5	2,457	13.5
Annuities funding structured settlement claims	1,271	6.7	1,279	7.0
Direct financing leases	1,247	6.6	1,192	6.5
Leveraged leases	1,052	5.5	1,108	6.1
Operating joint ventures	838	4.4	796	4.4
FHLB common stock	809	4.3	793	4.4
Funds withheld	470	2.5	416	2.3
Other	1,251	6.6	1,180	6.5
Total	$ 19,015	100%	$ 18,190	100%
Percentage of cash and invested assets	3.9%		4.0%	

See Notes 1, 8 and 9 of the Notes to the Consolidated Financial Statements for information regarding freestanding derivatives with positive estimated fair values, tax credit and renewable energy partnerships, direct financing and leveraged leases, annuities funding structured settlement claims, FHLB common stock, operating joint ventures and funds withheld.

See Note 8 of the Notes to the Consolidated Financial Statements for information regarding gains (losses) on disposals of, and impairments of, tax credit and renewable energy partnerships, and leveraged lease impairment losses.

See Note 1 of the Notes to the Consolidated Financial Statements for a description of new guidance to be adopted in 2020 regarding the measurement of credit losses on financial instruments, including direct financing and leveraged leases.

Derivatives

Derivative Risks

We are exposed to various risks relating to our ongoing business operations, including interest rate, foreign currency exchange rate, credit and equity market. We use a variety of strategies to manage these risks, including the use of derivatives. See Note 9 of the Notes to the Consolidated Financial Statements for:

- A comprehensive description of the nature of our derivatives, including the strategies for which derivatives are used in managing various risks.
- Information about the primary underlying risk exposure, gross notional amount, and estimated fair value of our derivatives by type of hedge designation, excluding embedded derivatives held at December 31, 2019 and 2018.
- The statement of operations effects of derivatives in net investments in foreign operations, cash flow, fair value, or nonqualifying hedge relationships for the years ended December 31, 2019, 2018 and 2017.

See "Quantitative and Qualitative Disclosures About Market Risk — Management of Market Risk Exposures — Hedging Activities" for more information about our use of derivatives by major hedge program.

Fair Value Hierarchy

See Note 10 of the Notes to the Consolidated Financial Statements for derivatives measured at estimated fair value on a recurring basis and their corresponding fair value hierarchy.

The valuation of Level 3 derivatives involves the use of significant unobservable inputs and generally requires a higher degree of management judgment or estimation than the valuations of Level 1 and Level 2 derivatives. Although Level 3 inputs are unobservable, management believes they are consistent with what other market participants would use when pricing such instruments and are considered appropriate given the circumstances. The use of different inputs or methodologies could have a material effect on the estimated fair value of Level 3 derivatives and could materially affect net income.

Derivatives categorized as Level 3 at December 31, 2019 include: interest rate forwards with maturities which extend beyond the observable portion of the yield curve; interest rate total return swaps with unobservable repurchase rates; foreign currency swaps and forwards with certain unobservable inputs, including the unobservable portion of the yield curve; credit default swaps priced using unobservable credit spreads, or that are priced through independent broker quotations; equity variance swaps with unobservable volatility inputs; and equity index options with unobservable correlation inputs. At December 31, 2019, less than 1% of the estimated fair value of our derivatives was priced through independent broker quotations.

See Note 10 of the Notes to the Consolidated Financial Statements for a rollforward of the fair value measurements for derivatives measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs.

The gain (loss) on Level 3 derivatives primarily relates to foreign currency swaps and forwards that are valued using an unobservable portion of the swap yield curves. Other significant inputs, which are observable, include equity index levels, equity volatility and the swap yield curves. We validate the reasonableness of these inputs by valuing the positions using internal models and comparing the results to broker quotations.

The gain (loss) on Level 3 derivatives, percentage of gain (loss) attributable to observable and unobservable inputs, and the primary drivers of observable gain (loss) are summarized as follows:

	Year Ended December 31, 2019
Gain (loss) recognized in net income (loss)	($108)
Approximate percentage of gain (loss) attributable to observable inputs	45%
Primary drivers of observable gain (loss)	Increases in interest rates on new interest rate total return swaps and increases in certain equity index levels on equity derivatives.
Approximate percentage of gain (loss) attributable to unobservable inputs	55%

See "— Summary of Critical Accounting Estimates — Derivatives" for further information on the estimates and assumptions that affect derivatives.

Credit Risk

See Note 9 of the Notes to the Consolidated Financial Statements for information about how we manage credit risk related to derivatives and for the estimated fair value of our net derivative assets and net derivative liabilities after the application of master netting agreements and collateral.

Our policy is not to offset the fair value amounts recognized for derivatives executed with the same counterparty under the same master netting agreement. This policy applies to the recognition of derivatives on the consolidated balance sheets, and does not affect our legal right of offset.

Credit Derivatives

The following table presents the gross notional amount and estimated fair value of credit default swaps at:

	December 31,			
	2019		2018	
Credit Default Swaps	Gross Notional Amount	Estimated Fair Value	Gross Notional Amount	Estimated Fair Value
	(In millions)			
Purchased	$ 2,944	$ (98)	$ 1,903	$ (14)
Written	11,520	271	11,391	82
Total	$ 14,464	$ 173	$ 13,294	$ 68

The following table presents the gross gains, gross losses and net gains (losses) recognized in net derivative gains (losses) for credit default swaps as follows:

	Years Ended December 31,					
	2019			2018		
Credit Default Swaps	Gross Gains	Gross Losses	Net Gains (Losses)	Gross Gains	Gross Losses	Net Gains (Losses)
	(In millions)					
Purchased (1)	$ 2	$ (40)	$ (38)	$ 17	$ (11)	$ 6
Written (1)	257	(9)	248	24	(156)	(132)
Total	$ 259	$ (49)	$ 210	$ 41	$ (167)	$ (126)

(1) Gains (losses) do not include earned income (expense) on credit default swaps.

The favorable change in net gains (losses) on written credit default swaps of $380 million was due to certain credit spreads on certain credit default swaps used as replications narrowing in the current period as compared to widening in the prior period.

The maximum amount at risk related to our written credit default swaps is equal to the corresponding gross notional amount. In a replication transaction, we pair an asset on our balance sheet with a written credit default swap to synthetically replicate a corporate bond, a core asset holding of life insurance companies. Replications are entered into in accordance with the guidelines approved by state insurance regulators and the NAIC and are an important tool in managing the overall corporate credit risk within the Company. In order to match our long-dated insurance liabilities, we seek to buy long-dated corporate bonds. In some instances, these may not be readily available in the market, or they may be issued by corporations to which we already have significant corporate credit exposure. For example, by purchasing Treasury bonds (or other high quality assets) and associating them with written credit default swaps on the desired corporate credit name, we can replicate the desired bond exposures and meet our ALM needs. In addition, given the shorter tenor of the credit default swaps (generally five-year tenors) versus a long-dated corporate bond, we have more flexibility in managing our credit exposures.

Embedded Derivatives

See Note 10 of the Notes to the Consolidated Financial Statements for information about embedded derivatives measured at estimated fair value on a recurring basis and their corresponding fair value hierarchy and a rollforward of the fair value measurements for embedded derivatives measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs.

See Note 9 of the Notes to the Consolidated Financial Statements for information about the nonperformance risk adjustment included in the valuation of guaranteed minimum benefits accounted for as embedded derivatives.

See "— Summary of Critical Accounting Estimates — Derivatives" for further information on the estimates and assumptions that affect embedded derivatives.

Off-Balance Sheet Arrangements

Credit and Committed Facilities

We maintain an unsecured revolving credit facility, as well as committed facilities, with various financial institutions. See Note 13 of the Notes to the Consolidated Financial Statements for descriptions of such arrangements, the classification of expenses on such credit and committed facilities and the nature of the associated liability for letters of credit issued and drawdowns on these credit and committed facilities. See also "— Liquidity and Capital Resources — The Company — Liquidity and Capital Sources — Global Funding Sources — Credit and Committed Facilities."

Collateral for Securities Lending, Third-Party Custodian Administered Repurchase Programs and Derivatives

We participate in a securities lending program and third-party custodian administered repurchase programs in the normal course of business for the purpose of enhancing the total return on our investment portfolio. See Notes 1 and 8 of the Notes to the Consolidated Financial Statements for further discussion of our securities lending program and repurchase agreement transactions, the classification of revenues and expenses, and the nature of the secured financing arrangements and associated liabilities.

Securities lending: Periodically we receive non-cash collateral for securities lending from counterparties, which cannot be sold or re-pledged, and which is not reflected on our consolidated balance sheets. The amount of this non-cash collateral was $0 and $78 million at estimated fair value at December 31, 2019 and 2018, respectively.

Third-party custodian administered repurchase programs: We loan certain of our fixed maturity securities AFS to unaffiliated financial institutions and, in exchange, non-cash collateral is put on deposit by the unaffiliated financial institutions on our behalf with third-party custodians. The estimated fair value of securities loaned in connection with these transactions was $85 million and $78 million at December 31, 2019 and 2018, respectively. Non-cash collateral on deposit with third-party custodians on our behalf was $90 million and $84 million, at estimated fair value, at December 31, 2019 and 2018, respectively, which cannot be sold or re-pledged, and which is not reflected on our consolidated balance sheets.

Derivatives: We enter into derivatives to manage various risks relating to our ongoing business operations. We receive non-cash collateral from counterparties for derivatives, which can be sold or re-pledged subject to certain constraints, and which is not reflected on our consolidated balance sheets. The amount of this non-cash collateral was $1.7 billion and $1.3 billion, at estimated fair value, at December 31, 2019 and 2018, respectively. See "— Liquidity and Capital Resources — The Company — Liquidity and Capital Uses — Pledged Collateral" and Note 9 of the Notes to the Consolidated Financial Statements for information regarding the earned income on and the gross notional amount, estimated fair value of assets and liabilities and primary underlying risk exposure of our derivatives.

Lease Commitments

As lessee, we have entered into various lease and sublease agreements for office space and equipment. Our commitments under such lease agreements are included within the contractual obligations table. See "— Liquidity and Capital Resources — The Company — Contractual Obligations" and Note 11 of the Notes to the Consolidated Financial Statements.

Guarantees

See "Guarantees" in Note 21 of the Notes to the Consolidated Financial Statements.

Other

We enter into the following additional commitments in the normal course of business for the purpose of enhancing the total return on our investment portfolio: mortgage loan commitments and commitments to fund partnerships, bank credit facilities, bridge loans and private corporate bond investments. See "Net Investment Income" and "Net Investment Gains (Losses)" in Note 8 of the Notes to the Consolidated Financial Statements for information on the investment income, investment expense, and gains and losses from such investments. See also "— Investments — Fixed Maturity Securities AFS and Equity Securities" and "— Investments — Mortgage Loans" for information on our investments in fixed maturity securities AFS and mortgage loans. See "— Investments — Real Estate and Real Estate Joint Ventures" and "— Investments — Other Limited Partnership Interests" for information on our partnership investments.

Other than the commitments disclosed in Note 21 of the Notes to the Consolidated Financial Statements, there are no other material obligations or liabilities arising from the commitments to fund mortgage loans, partnerships, bank credit facilities, bridge loans, and private corporate bond investments. For further information on commitments to fund partnership investments, mortgage loans, bank credit facilities, bridge loans and private corporate bond investments, see "— Liquidity and Capital Resources — The Company — Contractual Obligations."

Insolvency Assessments

See Note 21 of the Notes to the Consolidated Financial Statements.

Policyholder Liabilities

We establish, and carry as liabilities, actuarially determined amounts that are calculated to meet policy obligations or to provide for future annuity payments. Amounts for actuarial liabilities are computed and reported on the consolidated financial statements in conformity with GAAP. For more details on Policyholder Liabilities, see "— Summary of Critical Accounting Estimates."

Due to the nature of the underlying risks and the uncertainty associated with the determination of actuarial liabilities, we cannot precisely determine the amounts that will ultimately be paid with respect to these actuarial liabilities, and the ultimate amounts may vary from the estimated amounts, particularly when payments may not occur until well into the future.

We periodically review our estimates of actuarial liabilities for future benefits and compare them with our actual experience. We revise estimates, to the extent permitted or required under GAAP, if we determine that future expected experience differs from assumptions used in the development of actuarial liabilities. We charge or credit changes in our liabilities to expenses in the period the liabilities are established or re-estimated. If the liabilities originally established for future benefit payments prove inadequate, we must increase them. Such an increase could adversely affect our earnings and have a material adverse effect on our business, results of operations and financial condition.

We have experienced, and will likely in the future experience, catastrophe losses and possibly acts of terrorism, as well as turbulent financial markets that may have an adverse impact on our business, results of operations and financial condition. Due to their nature, we cannot predict the incidence, timing, severity or amount of losses from catastrophes and acts of terrorism, but we make broad use of catastrophic and non-catastrophic reinsurance to manage risk from these perils. We also use hedging, reinsurance and other risk management activities to mitigate financial market volatility.

See "Business — Regulation — Insurance Regulation — Policy and Contract Reserve Adequacy Analysis" for information regarding required analyses of the adequacy of statutory reserves of our insurance operations.

Future Policy Benefits

We establish liabilities for amounts payable under insurance policies. See Notes 1 and 4 of the Notes to the Consolidated Financial Statements, "— Industry Trends — Impact of a Sustained Low Interest Rate Environment — Low Interest Rate Scenario" and "— Variable Annuity Guarantees." A discussion of future policy benefits by segment (as well as Corporate & Other) follows.

U.S.

Amounts payable under insurance policies for this segment are comprised of group insurance and annuities, as well as property and casualty policies. For group insurance, future policyholder benefits are comprised mainly of liabilities for disabled lives under disability waiver of premium policy provisions, liabilities for survivor income benefit insurance, active life policies and premium stabilization and other contingency liabilities held under life insurance contracts. For group annuity contracts, future policyholder benefits are primarily related to payout annuities, including pension risk transfers, structured settlement annuities and institutional income annuities. There is no interest rate crediting flexibility on these liabilities. As a result, a sustained low interest rate environment could negatively impact earnings; however, we mitigate our risks by applying various ALM strategies, including the use of various interest rate derivative positions. The components of future policy benefits related to our property and casualty policies are liabilities for unpaid claims, estimated based upon assumptions such as rates of claim frequencies, levels of severities, inflation, judicial trends, legislative changes or regulatory decisions. Assumptions are based upon our historical experience and analysis of historical development patterns of the relationship of loss adjustment expenses to losses for each line of business, and we consider the effects of current developments, anticipated trends and risk management programs, reduced for anticipated salvage and subrogation.

Asia

Future policy benefits for this segment are held primarily for traditional life, endowment, annuity and accident & health contracts. They are also held for total return pass-through provisions included in certain universal life and savings products. They include certain liabilities for variable annuity and variable life guarantees of minimum death benefits, and longevity guarantees. Factors impacting these liabilities include sustained periods of lower than expected yields, lower than expected asset reinvestment rates, market volatility, actual lapses resulting in lower than expected income, and actual mortality or morbidity resulting in higher than expected benefit payments. We mitigate our risks by applying various ALM strategies and by the use of reinsurance.

Latin America

Future policy benefits for this segment are held primarily for immediate annuities in Chile, Mexico and Argentina and traditional life contracts mainly in Mexico, Brazil and Colombia. There are also liabilities held for total return pass-through provisions included in certain universal life and savings products in Mexico. There is limited interest rate crediting flexibility on the immediate annuity and traditional life liabilities. As a result, sustained periods of lower than expected yields could negatively impact earnings; however, we mitigate our risks by applying various ALM strategies. Other factors impacting these liabilities are actual mortality resulting in higher than expected benefit payments and actual lapses resulting in lower than expected income.

EMEA

Future policy benefits for this segment include unearned premium reserves for group life and credit insurance contracts. Future policy benefits are also held for traditional life, endowment and annuity contracts with significant mortality risk and accident & health contracts. Factors impacting these liabilities include lower than expected asset reinvestment rates, market volatility, actual lapses resulting in lower than expected income, and actual mortality or morbidity resulting in higher than expected benefit payments. We mitigate our risks by having premiums which are adjustable or cancellable in some cases, applying various ALM strategies and by the use of reinsurance.

MetLife Holdings

Future policy benefits for the life insurance business are comprised mainly of liabilities for traditional life insurance contracts. In order to manage risk, we have often reinsured a portion of the mortality risk on life insurance policies. We routinely evaluate our reinsurance programs, which may result in increases or decreases to existing coverage. We have entered into various interest rate derivative positions to mitigate the risk that investment of premiums received and reinvestment of maturing assets over the life of the policy will be at rates below those assumed in the original pricing of these contracts. For the annuities business, future policy benefits are comprised mainly of liabilities for life-contingent income annuities and liabilities for the variable annuity guaranteed minimum benefits that are accounted for as insurance. Other future policyholder benefits are comprised mainly of liabilities for disabled lives under disability waiver of premium policy provisions, and active life policies. In addition, for our other products, future policyholder benefits related to the reinsurance of our former Japan joint venture are comprised of liabilities for the variable annuity guaranteed minimum benefits that are accounted for as insurance.

Corporate & Other

Future policy benefits primarily include liabilities for other reinsurance business.

Policyholder Account Balances

Policyholder account balances are generally equal to the account value, which includes accrued interest credited, but excludes the impact of any applicable charge that may be incurred upon surrender. See "— Industry Trends — Impact of a Sustained Low Interest Rate Environment — Low Interest Rate Scenario" and "— Variable Annuity Guarantees." See also Notes 1 and 4 of the Notes to the Consolidated Financial Statements for additional information. A discussion of policyholder account balances by segment follows.

U.S.

Policyholder account balances in this segment are comprised of funding agreements, retained asset accounts, universal life policies, the fixed account of variable life insurance policies and specialized life insurance products for benefit programs.

Group Benefits

Policyholder account balances in this business are held for retained asset accounts, universal life policies, the fixed account of variable life insurance policies and specialized life insurance products for benefit programs. Policyholder account balances are credited interest at a rate we determine, which is influenced by current market rates. A sustained low interest rate environment could adversely impact liabilities and earnings as a result of the minimum credited rate guarantees present in most of these policyholder account balances. We have various interest rate derivative positions to partially mitigate the risks associated with such a scenario.

The table below presents the breakdown of account value subject to minimum guaranteed crediting rates for Group Benefits:

	December 31, 2019	
Guaranteed Minimum Crediting Rate	**Account Value**	**Account Value at Guarantee**
	(In millions)	
Greater than 0% but less than 2%	$ 4,728	$ 4,604
Equal to or greater than 2% but less than 4%	$ 1,689	$ 1,652
Equal to or greater than 4%	$ 757	$ 729

Retirement and Income Solutions

Policyholder account balances in this business are held largely for investment-type products mainly funding agreements and also include postretirement benefits and corporate owned life insurance to fund non-qualified benefit programs for executives. Interest crediting rates vary by type of contract, and can be fixed or variable. Variable interest crediting rates are generally tied to an external index, most commonly (1-month or 3-month) LIBOR. We are exposed to interest rate risks, as well as foreign currency exchange rate risk, when guaranteeing payment of interest and return of principal at the contractual maturity date. We may invest in floating rate assets or enter into receive-floating interest rate swaps, also tied to external indices, as well as interest rate caps, to mitigate the impact of changes in market interest rates. We also mitigate our risks by applying various ALM strategies and seek to hedge all foreign currency exchange rate risk through the use of foreign currency hedges, including cross currency swaps.

The table below presents the breakdown of account value subject to minimum guaranteed crediting rates for RIS:

	December 31, 2019	
Guaranteed Minimum Crediting Rate	**Account Value**	**Account Value at Guarantee**
	(In millions)	
Greater than 0% but less than 2%	$ 149	$ —
Equal to or greater than 2% but less than 4%	$ 1,070	$ 102
Equal to or greater than 4%	$ 4,582	$ 4,375

Asia

Policyholder account balances in this segment are held largely for fixed income retirement and savings plans, fixed deferred annuities, interest sensitive whole life products, universal life and, to a lesser degree, liability amounts for Unit-linked investments that do not meet the GAAP definition of separate accounts. Also included are certain liabilities for retirement and savings products sold in certain countries in Asia that generally are sold with minimum credited rate guarantees. Liabilities for guarantees on certain variable annuities in Asia are accounted for as embedded derivatives and recorded at estimated fair value and are also included within policyholder account balances. A sustained low interest rate environment could adversely impact liabilities and earnings as a result of the minimum credited rate guarantees present in most of these policyholder account balances. We mitigate our risks by applying various ALM strategies and with reinsurance. Liabilities for Unit-linked investments are impacted by changes in the fair value of the associated underlying investments, as the return on assets is generally passed directly to the policyholder.

The table below presents the breakdown of account value subject to minimum guaranteed crediting rates for Asia:

	December 31, 2019	
Guaranteed Minimum Crediting Rate	**Account Value**	**Account Value at Guarantee**
	(In millions)	
Annuities		
Greater than 0% but less than 2%	$ 29,398	$ 1,578
Equal to or greater than 2% but less than 4%	$ 1,131	$ 372
Equal to or greater than 4%	$ 1	$ 1
Life & Other		
Greater than 0% but less than 2%	$ 11,431	$ 11,047
Equal to or greater than 2% but less than 4%	$ 27,890	$ 9,318
Equal to or greater than 4%	$ 276	$ 276

Latin America

Policyholder account balances in this segment are held largely for investment-type products and universal life products in Mexico and Chile, and deferred annuities in Brazil. Some products in Chile and some of the deferred annuities in Brazil are Unit-linked investments that do not meet the GAAP definition of separate accounts. Liabilities for Unit-linked investments are impacted by changes in the fair value of the associated investments, as the return on assets is generally passed directly to the policyholder. Many of the other liabilities have minimum credited rate guarantees, which could adversely impact liabilities and earnings in a sustained low interest rate environment.

EMEA

Policyholder account balances in this segment are held mostly for universal life, deferred annuities, pension products, and Unit-linked investments that do not meet the GAAP definition of separate accounts. They are also held for endowment products without significant mortality risk. A sustained low interest rate environment could adversely impact liabilities and earnings as a result of the minimum credited rate guarantees present in many of these policyholder account balances. We mitigate our risks by applying various ALM strategies. Liabilities for Unit-linked investments are impacted by changes in the fair value of the associated investments, as the return on assets is generally passed directly to the policyholder.

MetLife Holdings

Life policyholder account balances in this segment are held for retained asset accounts, universal life policies, the fixed account of variable life insurance policies, and funding agreements. For annuities, policyholder account balances are held for fixed deferred annuities, the fixed account portion of variable annuities, non-life contingent income annuities, and embedded derivatives related to variable annuity guarantees. Interest is credited to the policyholder's account at interest rates we determine which are influenced by current market rates, subject to specified minimums. A sustained low interest rate environment could adversely impact liabilities and earnings as a result of the minimum credited rate guarantees present in most of these policyholder account balances. We have various interest rate derivative positions to partially mitigate the risks associated with such a scenario. Additionally, for our other products, policyholder account balances are held for variable annuity guarantees assumed from a former operating joint venture in Japan that are accounted for as embedded derivatives.

The table below presents the breakdown of account value subject to minimum guaranteed crediting rates for the MetLife Holdings segment:

	December 31, 2019			
Guaranteed Minimum Crediting Rate	Account Value		Account Value at Guarantee	
	(In millions)			
Greater than 0% but less than 2%	$	1,308	$	1,174
Equal to or greater than 2% but less than 4%	$	17,896	$	15,280
Equal to or greater than 4%	$	7,859	$	5,337

Variable Annuity Guarantees

We issue, directly and through assumed business, certain variable annuity products with guaranteed minimum benefits that provide the policyholder a minimum return based on their initial deposit (i.e., the benefit base) less withdrawals. In some cases, the benefit base may be increased by additional deposits, bonus amounts, accruals or optional market value resets. See Notes 1 and 4 of the Notes to the Consolidated Financial Statements for additional information.

Certain guarantees, including portions thereof, have insurance liabilities established that are included in future policy benefits. Guarantees accounted for in this manner include GMDBs, the life-contingent portion of GMWBs, elective GMIB annuitizations, and the life contingent portion of GMIBs that require annuitization when the account balance goes to zero. These liabilities are accrued over the life of the contract in proportion to actual and future expected policy assessments based on the level of guaranteed minimum benefits generated using multiple scenarios of separate account returns. The scenarios are based on best estimate assumptions consistent with those used to amortize DAC. When current estimates of future benefits exceed those previously projected or when current estimates of future assessments are lower than those previously projected, liabilities will increase, resulting in a current period charge to net income. The opposite result occurs when the current estimates of future benefits are lower than those previously projected or when current estimates of future assessments exceed those previously projected. At the end of each reporting period, we update the actual amount of business remaining in-force, which impacts expected future assessments and the projection of estimated future benefits resulting in a current period charge or increase to earnings.

Certain guarantees, including portions thereof, accounted for as embedded derivatives, are recorded at estimated fair value and included in policyholder account balances. Guarantees accounted for as embedded derivatives include GMABs, the non-life contingent portion of GMWBs and certain non-life contingent portions of GMIBs. The estimated fair values of guarantees accounted for as embedded derivatives are determined based on the present value of projected future benefits minus the present value of projected future fees. The projections of future benefits and future fees require capital market and actuarial assumptions including expectations concerning policyholder behavior. A risk neutral valuation methodology is used to project the cash flows from the guarantees under multiple capital market scenarios to determine an economic liability. The reported estimated fair value is then determined by taking the present value of these risk-free generated cash flows using a discount rate that incorporates a spread over the risk-free rate to reflect our nonperformance risk and adding a risk margin. For more information on the determination of estimated fair value, see Note 10 of the Notes to the Consolidated Financial Statements.

The table below presents the carrying value for guarantees at:

	Future Policy Benefits		Policyholder Account Balances	
	December 31,		December 31,	
	2019	2018	2019	2018
	(In millions)			
Asia				
GMDB	$ 3	$ 3	$ —	$ —
GMAB	—	—	34	34
GMWB	34	81	143	143
EMEA				
GMDB	3	7	—	—
GMAB	—	—	25	24
GMWB	15	70	(62)	(82)
MetLife Holdings				
GMDB	335	289	—	—
GMIB	756	743	110	106
GMAB	—	—	(1)	5
GMWB	125	129	375	563
Total	$ 1,271	$ 1,322	$ 624	$ 793

The carrying amounts for guarantees included in policyholder account balances above include nonperformance risk adjustments of $147 million and $263 million at December 31, 2019 and 2018, respectively. These nonperformance risk adjustments represent the impact of including a credit spread when discounting the underlying risk neutral cash flows to determine the estimated fair values. The nonperformance risk adjustment does not have an economic impact on us as it cannot be monetized given the nature of these policyholder liabilities. The change in valuation arising from the nonperformance risk adjustment is not hedged.

The carrying values of these guarantees can change significantly during periods of sizable and sustained shifts in equity market performance, equity volatility, interest rates or foreign currency exchange rates. Carrying values are also impacted by our assumptions around mortality, separate account returns and policyholder behavior, including lapse rates.

As discussed below, we use a combination of product design, hedging strategies, reinsurance, and other risk management actions to mitigate the risks related to these benefits. Within each type of guarantee, there is a range of product offerings reflecting the changing nature of these products over time. Changes in product features and terms are in part driven by customer demand but, more importantly, reflect our risk management practices of continuously evaluating the guaranteed benefits and their associated asset-liability matching. We continue to diversify the concentration of income benefits in our portfolio by focusing on withdrawal benefits, variable annuities without living benefits and index-linked annuities.

The sections below provide further detail by total account value for certain of our most popular guarantees. Total account values include amounts not reported on the consolidated balance sheets from assumed business, Unit-linked investments that do not qualify for presentation as separate account assets, and amounts included in our general account. The total account values and the net amounts at risk include direct and assumed business, but exclude offsets from hedging or ceded reinsurance, if any.

GMDBs

We offer a range of GMDBs to our contractholders. The table below presents GMDBs, by benefit type, at December 31, 2019:

	Total Account Value (1)	
	Asia & EMEA	MetLife Holdings
	(In millions)	
Return of premium or five to seven year step-up	$ 8,119	$ 47,459
Annual step-up	—	3,159
Roll-up and step-up combination	—	5,756
Total	$ 8,119	$ 56,374

(1) Total account value excludes $649 million for contracts with no GMDBs. The Company's annuity contracts with guarantees may offer more than one type of guarantee in each contract. Therefore, the amounts listed for GMDBs and for living benefit guarantees are not mutually exclusive.

Based on total account value, less than 19% of our GMDBs included enhanced death benefits such as the annual step-up or roll-up and step-up combination products at December 31, 2019. We expect the above GMDB risk profile to be relatively consistent for the foreseeable future.

Living Benefit Guarantees

The table below presents our living benefit guarantees based on total account values at December 31, 2019:

	Total Account Value (1)	
	Asia & EMEA	MetLife Holdings
	(In millions)	
GMIB	$ —	$ 21,472
GMWB - non-life contingent (2)	1,168	2,521
GMWB - life-contingent	3,737	9,385
GMAB	2,009	232
Total	$ 6,914	$ 33,610

(1) Total account value excludes $24.2 billion for contracts with no living benefit guarantees. The Company's annuity contracts with guarantees may offer more than one type of guarantee in each contract. Therefore, the amounts listed for GMDBs and for living benefit guarantee amounts are not mutually exclusive.

(2) The Asia and EMEA segments include the non-life contingent portion of the GMWB total account value of $1.2 billion with a guarantee at annuitization.

In terms of total account value, GMIBs are our most significant living benefit guarantee. Our primary risk management strategy for our GMIB products is our derivatives hedging program as discussed below. Additionally, we have engaged in certain reinsurance agreements covering some of our GMIB business. As part of our overall risk management approach for living benefit guarantees, we continually monitor the reinsurance markets for the right opportunity to purchase additional coverage for our GMIB business. We stopped selling GMIBs in February 2016.

The table below presents our GMIB associated total account values, by their guaranteed payout basis, at December 31, 2019:

	Total Account Value
	(In millions)
7-year setback, 2.5% interest rate	$ 5,940
7-year setback, 1.5% interest rate	964
10-year setback, 1.5% interest rate	4,301
10-year mortality projection, 10-year setback, 1.0% interest rate	8,666
10-year mortality projection, 10-year setback, 0.5% interest rate	1,601
	$ 21,472

The annuitization interest rates on GMIBs have been decreased from 2.5% to 0.5% over time, partially in response to the low interest rate environment, accompanied by an increase in the setback period from seven years to 10 years and the introduction of a 10-year mortality projection.

Additionally, 42% of the $21.5 billion of GMIB total account value has been invested in managed volatility funds as of December 31, 2019. These funds seek to manage volatility by adjusting the fund holdings within certain guidelines based on capital market movements. Such activity reduces the overall risk of the underlying funds while maintaining their growth opportunities. These risk mitigation techniques reduce or eliminate the need for us to manage the funds' volatility through hedging or reinsurance.

Our GMIB products typically have a waiting period of 10 years to be eligible for annuitization. As of December 31, 2019, only 22% of our contracts with GMIBs were eligible for annuitization. The remaining contracts are not eligible for annuitization for an average of four years.

Once eligible for annuitization, contractholders would be expected to annuitize only if their contracts were in-the-money. We calculate in-the-moneyness with respect to GMIBs consistent with net amount at risk as discussed in Note 4 of the Notes to the Consolidated Financial Statements, by comparing the contractholders' income benefits based on total account values and current annuity rates versus the guaranteed income benefits. The net amount at risk was $584 million at December 31, 2019, of which $524 million was related to GMIBs. For those contracts with GMIB, the table below presents details of contracts that are in-the-money and out-of-the-money at December 31, 2019:

	In-the-Moneyness	Total Account Value	% of Total
		(In millions)	
In-the-money	30% or greater	$ 512	2%
	20% to less than 30%	338	2%
	10% to less than 20%	590	3%
	0% to less than 10%	1,232	6%
		2,672	
Out-of-the-money	-10% to 0%	2,090	10%
	-20% to less than -10%	3,775	18%
	Greater than -20%	12,935	60%
		18,800	
Total GMIBs		$ 21,472	

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Derivatives Hedging Variable Annuity Guarantees

Our risk mitigating hedging strategy uses various OTC and exchange traded derivatives. The table below presents the gross notional amount, estimated fair value and primary underlying risk exposure of the derivatives hedging our variable annuity guarantees:

		December 31,					
		2019			2018		
		Gross Notional	Estimated Fair Value		Gross Notional	Estimated Fair Value	
Primary Underlying Risk Exposure	Instrument Type	Amount	Assets	Liabilities	Amount	Assets	Liabilities
		(In millions)					
Interest rate	Interest rate swaps	$ 8,639	$ 73	$ 16	$ 8,209	$ 89	$ 3
	Interest rate futures	1,678	3	3	1,559	1	3
	Interest rate options	838	209	—	838	163	—
Foreign currency exchange rate	Foreign currency forwards	1,644	16	24	1,815	44	9
	Currency options	1	—	—	—	—	—
Equity market	Equity futures	4,127	5	8	2,730	11	77
	Equity index options	8,775	473	667	9,933	408	546
	Equity variance swaps	1,115	23	19	2,269	40	87
	Equity total return swaps	761	—	70	929	91	—
	Total	$ 27,578	$ 802	$ 807	$ 28,282	$ 847	$ 725

The change in estimated fair values of our derivatives is recorded in policyholder benefits and claims if such derivatives are hedging guarantees included in future policy benefits, and in net derivative gains (losses) if such derivatives are hedging guarantees included in policyholder account balances.

Our hedging strategy involves the significant use of static longer-term derivative instruments to avoid the need to execute transactions during periods of market disruption or higher volatility. We continually monitor the capital markets for opportunities to adjust our liability coverage, as appropriate. Futures are also used to dynamically adjust the daily coverage levels as markets and liability exposures fluctuate.

We remain liable for the guaranteed benefits in the event that reinsurers or derivative counterparties are unable or unwilling to pay. Certain of our reinsurance agreements and all derivative positions are collateralized and derivatives positions are subject to master netting agreements, both of which significantly reduce the exposure to counterparty risk. In addition, we are subject to the risk that hedging and other risk management actions prove ineffective or that unanticipated policyholder behavior or mortality, combined with adverse market events, produces economic losses beyond the scope of the risk management techniques employed.

Liquidity and Capital Resources

Overview

Our business and results of operations are materially affected by conditions in the global capital markets and the economy generally. Stressed conditions, volatility and disruptions in global capital markets, particular markets, or financial asset classes can have an adverse effect on us, in part because we have a large investment portfolio and our insurance liabilities and derivatives are sensitive to changing market factors. Changing conditions in the global capital markets and the economy may affect our financing costs and market interest for our debt or equity securities. For further information regarding market factors that could affect our ability to meet liquidity and capital needs, see "— Industry Trends" and "— Investments — Current Environment."

Liquidity Management

Based upon the strength of our franchise, diversification of our businesses, strong financial fundamentals and the substantial funding sources available to us as described herein, we continue to believe we have access to ample liquidity to meet business requirements under current market conditions and reasonably possible stress scenarios. We continuously monitor and adjust our liquidity and capital plans for MetLife, Inc. and its subsidiaries in light of market conditions, as well as changing needs and opportunities.

Short-term Liquidity

We maintain a substantial short-term liquidity position, which was $9.8 billion and $11.1 billion at December 31, 2019 and 2018, respectively. Short-term liquidity includes cash and cash equivalents and short-term investments, excluding assets that are pledged or otherwise committed, including amounts received in connection with securities lending, repurchase agreements, derivatives, and secured borrowings, as well as amounts held in the closed block.

Liquid Assets

An integral part of our liquidity management includes managing our level of liquid assets, which was $221.4 billion and $202.7 billion at December 31, 2019 and 2018, respectively. Liquid assets include cash and cash equivalents, short-term investments and publicly-traded securities, excluding assets that are pledged or otherwise committed. Assets pledged or otherwise committed include amounts received in connection with securities lending, repurchase agreements, derivatives, regulatory deposits, the collateral financing arrangement, funding agreements and secured borrowings, as well as amounts held in the closed block.

Capital Management

We have established several senior management committees as part of our capital management process. These committees, including the Capital Management Committee and the Enterprise Risk Committee ("ERC"), regularly review actual and projected capital levels (under a variety of scenarios including stress scenarios) and our annual capital plan in accordance with our capital policy. The Capital Management Committee is comprised of members of senior management, including MetLife, Inc.'s Chief Financial Officer ("CFO"), Treasurer, and Chief Risk Officer ("CRO"). The ERC is also comprised of members of senior management, including MetLife, Inc.'s CFO, CRO and Chief Investment Officer.

Our Board of Directors and senior management are directly involved in the development and maintenance of our capital policy. The capital policy sets forth, among other things, minimum and target capital levels and the governance of the capital management process. All capital actions, including proposed changes to the annual capital plan, capital targets or capital policy, are reviewed by the Finance and Risk Committee of the Board of Directors prior to obtaining full Board of Directors approval. The Board of Directors approves the capital policy and the annual capital plan and authorizes capital actions, as required.

See "Risk Factors — Capital Risks — Legal and Regulatory Restrictions May Prevent Us from Paying Dividends and Repurchasing Our Stock" for information regarding restrictions on payment of dividends and stock repurchases. See also Note 16 of the Notes to the Consolidated Financial Statements for information regarding MetLife, Inc.'s common stock repurchase authorizations.

The Company

Liquidity

Liquidity refers to the ability to generate adequate amounts of cash to meet our needs. We determine our liquidity needs based on a rolling 12-month forecast by portfolio of invested assets which we monitor daily. We adjust the asset mix and asset maturities based on this rolling 12-month forecast. To support this forecast, we conduct cash flow and stress testing, which include various scenarios of the potential risk of early contractholder and policyholder withdrawal. We include provisions limiting withdrawal rights on many of our products, including general account pension products sold to employee benefit plan sponsors. Certain of these provisions prevent the customer from making withdrawals prior to the maturity date of the product. In the event of significant cash requirements beyond anticipated liquidity needs, we have various alternatives available depending on market conditions and the amount and timing of the liquidity need. These available alternatives include cash flows from operations, sales of liquid assets, global funding sources including commercial paper and various credit and committed facilities.

Under certain stressful market and economic conditions, our access to liquidity may deteriorate, or the cost to access liquidity may increase. A downgrade in our credit or financial strength ratings could also negatively affect our liquidity. See "— Rating Agencies." If we require significant amounts of cash on short notice in excess of anticipated cash requirements or if we are required to post or return cash collateral in connection with derivatives or our securities lending program, we may have difficulty selling investments in a timely manner, be forced to sell them for less than we otherwise would have been able to realize, or both. In addition, in the event of such forced sale, for securities in an unrealized loss position, realized losses would be incurred on securities sold and impairments would be incurred, if there is a need to sell securities prior to recovery, which may negatively impact our financial condition. See "Risk Factors — Investment Risks — We May Have Difficulty Selling Certain Holdings in Our Investment Portfolio or in Our Securities Lending Program in a Timely Manner and Realizing Full Value."

All general account assets within a particular legal entity — other than those which may have been pledged to a specific purpose — are generally available to fund obligations of the general account of that legal entity.

Capital

We manage our capital position to maintain our financial strength and credit ratings. See "— Rating Agencies" for information regarding such ratings. Our capital position is supported by our ability to generate strong cash flows within our operating companies and borrow funds at competitive rates, as well as by our demonstrated ability to raise additional capital to meet operating and growth needs despite adverse market and economic conditions.

Statutory Capital and Dividends

Our U.S. insurance subsidiaries have statutory surplus well above levels to meet current regulatory requirements.

RBC requirements are used as minimum capital requirements by the NAIC and the state insurance departments to identify companies that merit regulatory action. RBC is based on a formula calculated by applying factors to various asset, premium, claim, expense and statutory reserve items. The formula takes into account the risk characteristics of the insurer, including asset risk, insurance risk, interest rate risk, market risk and business risk and is calculated on an annual basis. The formula is used as an early warning regulatory tool to identify possible inadequately capitalized insurers for purposes of initiating regulatory action, and not as a means to rank insurers generally. These rules apply to most of our U.S. insurance subsidiaries. State insurance laws provide insurance regulators the authority to require various actions by, or take various actions against, insurers whose total adjusted capital does not meet or exceed certain RBC levels. As of the date of the most recent annual statutory financial statements filed with insurance regulators, the total adjusted capital of each of these subsidiaries subject to these requirements was in excess of each of those RBC levels.

As a Delaware corporation, American Life is subject to Delaware law; however, because it does not conduct insurance business in Delaware or any other U.S. state, it is exempt from RBC requirements under Delaware law. American Life's operations are also regulated by applicable authorities of the jurisdictions in which it operates and is subject to capital and solvency requirements in those jurisdictions.

The amount of dividends that our insurance subsidiaries can pay to MetLife, Inc. or to other parent entities is constrained by the amount of surplus we hold to maintain our ratings and provides an additional margin for risk protection and investment in our businesses. We proactively take actions to maintain capital consistent with these ratings objectives, which may include adjusting dividend amounts and deploying financial resources from internal or external sources of capital. Certain of these activities may require regulatory approval. Furthermore, the payment of dividends and other distributions to MetLife, Inc. and other parent entities by their respective insurance subsidiaries is governed by insurance laws and regulations. See "Business — Regulation — Insurance Regulation," "— MetLife, Inc. — Liquidity and Capital Sources — Dividends from Subsidiaries" and Note 16 of the Notes to the Consolidated Financial Statements.

Affiliated Captive Reinsurance Transactions

MLIC cedes specific policy classes, including term and universal life insurance, participating whole life insurance, LTD insurance, group life insurance and other business to various wholly-owned captive reinsurers. The reinsurance activities among these affiliated companies are eliminated within our consolidated results of operations. The statutory reserves of such affiliated captive reinsurers are supported by a combination of funds withheld assets, investment assets and letters of credit issued by unaffiliated financial institutions. MetLife, Inc. has entered into various support agreements in connection with the activities of these captive reinsurers. See Note 5 of the Notes to the MetLife, Inc. (Parent Company Only) Condensed Financial Information included in Schedule II of the Financial Statement Schedules for further details on certain of these support arrangements. MLIC has entered into reinsurance agreements with affiliated captive reinsurers for risk and capital management purposes, as well as to manage statutory reserve requirements related to universal life and term life insurance policies and other business.

The NYDFS continues to have a moratorium on new reserve financing transactions involving captive insurers. We are not aware of any states other than New York and California implementing such a moratorium. While such a moratorium would not impact our existing reinsurance agreements with captive reinsurers, a moratorium placed on the use of captives for new reserve financing transactions could impact our ability to write certain products and/or impact our RBC ratios and ability to deploy excess capital in the future. This could result in our need to increase prices, modify product features or limit the availability of those products to our customers. While this affects insurers across the industry, it could adversely impact our competitive position and our results of operations in the future. We continue to evaluate product modifications, pricing structure and alternative means of managing risks, capital and statutory reserves and we expect the discontinued use of captive reinsurance on new reserve financing transactions would not have a material impact on our future consolidated financial results. See Note 6 of the Notes to the Consolidated Financial Statements for further information on our reinsurance activities.

Rating Agencies

Rating agencies assign insurer financial strength ratings to MetLife, Inc.'s U.S. life insurance subsidiaries and credit ratings to MetLife, Inc. and certain of its subsidiaries. Financial strength ratings represent the opinion of rating agencies regarding the ability of an insurance company to pay obligations under insurance policies and contracts in accordance with their terms and are not evaluations directed toward the protection of investors in MetLife, Inc.'s securities. Insurer financial strength ratings are not statements of fact nor are they recommendations to purchase, hold or sell any security, contract or policy. Each rating should be evaluated independently of any other rating.

Rating agencies use an "outlook statement" of "positive," "stable," "negative" or "developing" to indicate a medium- or long-term trend in credit fundamentals which, if continued, may lead to a rating change. A rating may have a "stable" outlook to indicate that the rating is not expected to change; however, a "stable" rating does not preclude a rating agency from changing a rating at any time, without notice. Certain rating agencies assign rating modifiers such as "CreditWatch" or "under review" to indicate their opinion regarding the potential direction of a rating. These ratings modifiers are generally assigned in connection with certain events such as potential mergers, acquisitions, dispositions or material changes in a company's results, in order for the rating agency to perform its analysis to fully determine the rating implications of the event.

Our insurer financial strength ratings at the date of this filing are indicated in the following table. Outlook is stable unless otherwise indicated. Additional information about financial strength ratings can be found on the websites of the respective rating agencies.

	A.M. Best	Fitch	Moody's	S&P
Ratings Structure	"A++ (superior)" to "S (suspended)"	"AAA (exceptionally strong)" to "C (distressed)"	"Aaa (highest quality)" to "C (lowest rated)"	"AAA (extremely strong)" to "SD (Selective Default)" or "D (Default)"
American Life Insurance Company	NR	NR	A1 5th of 21	AA- 4th of 22
Metropolitan Life Insurance Company	A+ 2nd of 16	AA- 4th of 19	Aa3 4th of 21	AA- 4th of 22
MetLife Insurance K.K. (MetLife Japan)	NR	NR	NR	AA- 4th of 22
Metropolitan Tower Life Insurance Company	A+ 2nd of 16	AA- 4th of 19	Aa3 4th of 21	AA- 4th of 22

NR = Not rated

Credit ratings indicate the rating agency's opinion regarding a debt issuer's ability to meet the terms of debt obligations in a timely manner. They are important factors in our overall funding profile and ability to access certain types of liquidity. The level and composition of regulatory capital at the subsidiary level and our equity capital are among the many factors considered in determining our insurer financial strength ratings and credit ratings. Each agency has its own capital adequacy evaluation methodology, and assessments are generally based on a combination of factors. In addition to heightening the level of scrutiny that they apply to insurance companies, rating agencies have increased and may continue to increase the frequency and scope of their credit reviews, may request additional information from the companies that they rate and may adjust upward the capital and other requirements employed in the rating agency models for maintenance of certain ratings levels.

A downgrade in the credit ratings or insurer financial strength ratings of MetLife, Inc. or its subsidiaries would likely impact us in the following ways, including:

- impact our ability to generate cash flows from the sale of funding agreements and other capital market products offered by our RIS business;
- impact the cost and availability of financing for MetLife, Inc. and its subsidiaries; and
- result in additional collateral requirements or other required payments under certain agreements, which are eligible to be satisfied in cash or by posting investments held by the subsidiaries subject to the agreements. See "— Liquidity and Capital Uses — Pledged Collateral."

See also "Risk Factors — Economic Environment and Capital Markets Risks — A Downgrade or a Potential Downgrade in Our Financial Strength or Credit Ratings Could Result in a Loss of Business and Harm Our Financial Condition or Results of Operations."

Summary of the Company's Primary Sources and Uses of Liquidity and Capital

Our primary sources and uses of liquidity and capital are summarized as follows:

	Years Ended December 31,	
	2019	2018
	(In millions)	
Sources:		
Operating activities, net	$ 13,786	$ 11,738
Net change in policyholder account balances	6,524	4,266
Net change in payables for collateral under securities loaned and other transactions	2,019	—
Cash received for other transactions with tenors greater than three months	125	200
Long-term debt issued	1,382	24
Financing element on certain derivative instruments and other derivative related transactions, net	—	144
Preferred stock issued, net of issuance costs	—	1,274
Effect of change in foreign currency exchange rates on cash and cash equivalents	9	—
Total sources	23,845	17,646
Uses:		
Investing activities, net	17,586	5,634
Net change in payables for collateral under securities loaned and other transactions	—	821
Cash paid for other transactions with tenors greater than three months	200	—
Long-term debt repaid	906	1,871
Collateral financing arrangement repaid	67	61
Financing element on certain derivative instruments and other derivative related transactions, net	126	—
Treasury stock acquired in connection with share repurchases	2,285	3,992
Dividends on preferred stock	178	141
Dividends on common stock	1,643	1,678
Other, net	77	145
Effect of change in foreign currency exchange rates on cash and cash equivalents	—	183
Total uses	23,068	14,526
Net increase (decrease) in cash and cash equivalents	$ 777	$ 3,120

Cash Flows from Operations

The principal cash inflows from our insurance activities come from insurance premiums, net investment income, annuity considerations and deposit funds. The principal cash outflows are the result of various life insurance, property and casualty, annuity and pension products, operating expenses and income tax, as well as interest expense. A primary liquidity concern with respect to these cash flows is the risk of early contractholder and policyholder withdrawal.

Cash Flows from Investments

The principal cash inflows from our investment activities come from repayments of principal, proceeds from maturities and sales of investments and settlements of freestanding derivatives. The principal cash outflows relate to purchases of investments, issuances of policy loans and settlements of freestanding derivatives. Additional cash outflows relate to purchases of businesses. We typically have a net cash outflow from investing activities because cash inflows from insurance operations are reinvested in accordance with our ALM discipline to fund insurance liabilities. We closely monitor and manage these risks through our comprehensive investment risk management process. The primary liquidity concerns with respect to these cash flows are the risk of default by debtors and market disruption.

Cash Flows from Financing

The principal cash inflows from our financing activities come from issuances of debt and other securities, deposits of funds associated with policyholder account balances and lending of securities. The principal cash outflows come from repayments of debt and the collateral financing arrangement, payments of dividends on and repurchases of MetLife, Inc.'s securities, withdrawals associated with policyholder account balances and the return of securities on loan. The primary liquidity concerns with respect to these cash flows are market disruption and the risk of early contractholder and policyholder withdrawal.

Liquidity and Capital Sources

In addition to the general description of liquidity and capital sources in "— Summary of the Company's Primary Sources and Uses of Liquidity and Capital," the Company's primary sources of liquidity and capital are set forth below.

Global Funding Sources

Liquidity is provided by a variety of global funding sources, including funding agreements, credit and committed facilities and commercial paper. Capital is provided by a variety of global funding sources, including short-term and long-term debt, the collateral financing arrangement, junior subordinated debt securities, preferred securities, equity securities and equity-linked securities. MetLife, Inc. maintains a shelf registration statement with the SEC that permits the issuance of public debt, equity and hybrid securities. As a "Well-Known Seasoned Issuer" under SEC rules, MetLife, Inc.'s shelf registration statement provides for automatic effectiveness upon filing and has no stated issuance capacity. The diversity of our global funding sources enhances our funding flexibility, limits dependence on any one market or source of funds and generally lowers the cost of funds. Our primary global funding sources include:

Preferred Stock

See Notes 16 and 23 of the Notes to the Consolidated Financial Statements for information on preferred stock issuances.

Common Stock

See Note 16 of the Notes to the Consolidated Financial Statements.

Commercial Paper, Reported in Short-term Debt

MetLife, Inc. and MetLife Funding each have a commercial paper program that is supported by our unsecured revolving credit facility (see "— Credit and Committed Facilities"). MetLife Funding raises cash from its commercial paper program and uses the proceeds to extend loans through MetLife Credit Corp., another subsidiary of MLIC, to affiliates in order to enhance the financial flexibility and liquidity of these companies.

Federal Home Loan Bank Funding Agreements, Reported in Policyholder Account Balances

Certain of our U.S. insurance subsidiaries are members of a regional FHLB. For the years ended December 31, 2019 and 2018, we issued $33.0 billion and $27.3 billion, respectively, and repaid $32.8 billion and $27.5 billion, respectively, of funding agreements with certain regional FHLBs. At December 31, 2019 and 2018, total obligations outstanding under these funding agreements were $15.3 billion and $15.1 billion, respectively. See Note 4 of the Notes to the Consolidated Financial Statements.

Federal Home Loan Bank Advance Agreements, Reported in Payables for Collateral Under Securities Loaned and Other Transactions

For the years ended December 31, 2019 and 2018, we borrowed $3.0 billion and $3.1 billion, respectively, and repaid $3.0 billion and $2.6 billion, respectively, under advance agreements with the FHLB of Boston. At both December 31, 2019 and 2018, total obligations outstanding under these advance agreements were $800 million. See Note 8 of the Notes to the Consolidated Financial Statements.

Special Purpose Entity Funding Agreements, Reported in Policyholder Account Balances

We issue fixed and floating rate funding agreements which are denominated in either U.S. dollars or foreign currencies, to certain special purpose entities ("SPEs") that have issued either debt securities or commercial paper for which payment of interest and principal is secured by such funding agreements. For the years ended December 31, 2019 and 2018, we issued $37.3 billion and $41.8 billion, respectively, and repaid $36.4 billion and $43.7 billion, respectively, under such funding agreements. At December 31, 2019 and 2018, total obligations outstanding under these funding agreements were $34.6 billion and $32.3 billion, respectively. See Note 4 of the Notes to the Consolidated Financial Statements.

Federal Agricultural Mortgage Corporation Funding Agreements, Reported in Policyholder Account Balances

We have issued funding agreements to a subsidiary of Farmer Mac, as well as to certain SPEs that have issued debt securities for which payment of interest and principal is secured by such funding agreements, and such debt securities are also guaranteed as to payment of interest and principal by Farmer Mac. The obligations under all such funding agreements are secured by a pledge of certain eligible agricultural mortgage loans. For the years ended December 31, 2019 and 2018, we issued $700 million and $900 million, respectively, and repaid $700 million and $900 million, respectively, under such funding agreements. At both December 31, 2019 and 2018, total obligations outstanding under these funding agreements were $2.6 billion. See Note 4 of the Notes to the Consolidated Financial Statements.

Debt Issuances

In May 2019, MetLife, Inc. issued ¥151.7 billion ($1.4 billion at issuance) of senior notes for general corporate purposes and the repayment of indebtedness, which included the redemption of certain senior notes. See "— Liquidity and Capital Uses — Debt Repurchases, Redemptions and Exchanges" and Note 13 of the Notes to the Consolidated Financial Statements.

Credit and Committed Facilities

See Note 13 of the Notes to the Consolidated Financial Statements for information on credit and committed facilities.

We have no reason to believe that our lending counterparties will be unable to fulfill their respective contractual obligations under these facilities. As commitments under our credit and committed facilities may expire unused, these amounts do not necessarily reflect our actual future cash funding requirements.

Outstanding Debt Under Global Funding Sources

The following table summarizes our outstanding debt excluding long-term debt relating to CSEs at:

	December 31,	
	2019	**2018**
	(In millions)	
Short-term debt (1)	$ 235	$ 268
Long-term debt (2)	$ 13,461	$ 12,824
Collateral financing arrangement	$ 993	$ 1,060
Junior subordinated debt securities	$ 3,150	$ 3,147

(1) Includes $136 million and $168 million of debt that is non-recourse to MetLife, Inc. and MLIC, subject to customary exceptions, at December 31, 2019 and 2018, respectively. Certain subsidiaries have pledged assets to secure this debt.

(2) Includes $403 million and $422 million of debt that is non-recourse to MetLife, Inc. and MLIC, subject to customary exceptions, at December 31, 2019 and 2018, respectively. Certain investment subsidiaries have pledged assets to secure this debt.

Debt and Facility Covenants

Certain of our debt instruments and committed facilities, as well as our unsecured revolving credit facility, contain various administrative, reporting, legal and financial covenants. We believe we were in compliance with all applicable financial covenants at December 31, 2019.

Dispositions

For information regarding the pending disposition of MetLife Hong Kong, see Note 3 of the Notes to the Consolidated Financial Statements.

Liquidity and Capital Uses

In addition to the general description of liquidity and capital uses in "— Summary of the Company's Primary Sources and Uses of Liquidity and Capital" and "— Contractual Obligations," the Company's primary uses of liquidity and capital are set forth below.

Common Stock Repurchases

See Note 16 of the Notes to the Consolidated Financial Statements for information relating to authorizations by the Board of Directors to repurchase MetLife, Inc. common stock, amounts of common stock repurchased pursuant to such authorizations for the years ended December 31, 2019 and 2018, and the amount remaining under such authorizations at December 31, 2019. See Note 23 of the Notes to the Consolidated Financial Statements for information regarding shares of common stock repurchased subsequent to December 31, 2019.

Common stock repurchases are subject to the discretion of our Board of Directors and will depend upon our capital position, liquidity, financial strength and credit ratings, general market conditions, the market price of MetLife, Inc.'s common stock compared to management's assessment of the stock's underlying value, applicable regulatory approvals, and other legal and accounting factors. Restrictions on the payment of dividends that may arise under so-called "Dividend Stopper" provisions would also restrict MetLife, Inc.'s ability to repurchase common stock. See "— Dividends" for information about these restrictions. See also "Risk Factors — Capital Risks — Legal and Regulatory Restrictions May Prevent Us from Paying Dividends and Repurchasing Our Stock."

Dividends

For the years ended December 31, 2019 and 2018, MetLife, Inc. paid dividends on its preferred stock of $178 million and $141 million, respectively. For the years ended December 31, 2019 and 2018, MetLife, Inc. paid dividends on its common stock of $1.6 billion and $1.7 billion, respectively. See Note 16 of the Notes to the Consolidated Financial Statements for information regarding the calculation and timing of these dividend payments.

Dividends are paid quarterly on the Series A preferred stock. Dividends are paid semi-annually on MetLife, Inc.'s 5.25% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, until June 15, 2020 and, thereafter, will be paid quarterly. Dividends are paid semi-annually on the Series D preferred stock, in September and March until March 15, 2028 and, thereafter, will be paid quarterly. Dividends are paid quarterly on the Series E preferred stock.

The declaration and payment of common stock dividends are subject to the discretion of our Board of Directors, and will depend on MetLife, Inc.'s financial condition, results of operations, cash requirements, future prospects, regulatory restrictions on the payment of dividends by MetLife, Inc.'s insurance subsidiaries and other factors deemed relevant by the Board.

See Note 23 of the Notes to the Consolidated Financial Statements for information regarding common and preferred stock dividends declared subsequent to December 31, 2019.

"Dividend Stopper" Provisions in MetLife's Preferred Stock and Junior Subordinated Debentures

MetLife, Inc.'s preferred stock and junior subordinated debentures contain "dividend stopper" provisions under which MetLife, Inc. may not pay dividends on instruments junior to those instruments if payments have not been made on those instruments. Moreover, MetLife, Inc.'s Series A preferred stock and its junior subordinated debentures contain provisions that would limit the payment of dividends or interest on those instruments if MetLife, Inc. fails to meet certain tests ("Trigger Events"), to an amount not greater than the net proceeds from sales of common stock and other specified instruments during a period preceding the dividend declaration date or the interest payment date, as applicable. If such proceeds were under the circumstances insufficient to make such payments on those instruments, the dividend stopper provisions affecting common stock (and preferred stock, as applicable) would come into effect.

A "Trigger Event" would occur if:

- the RBC ratio of MetLife's largest U.S. insurance subsidiaries in the aggregate (as defined in the applicable instrument) were to be less than 175% of the company action level based on the subsidiaries' prior year annual financial statements filed (generally around March 1) with state insurance commissioners; or
- at the end of a quarter ("Final Quarter End Test Date"), consolidated GAAP net income for the four-quarter period ending two quarters before such quarter-end (the "Preliminary Quarter End Test Date") is zero or a negative amount and the consolidated GAAP stockholders' equity, minus AOCI (the "adjusted stockholders' equity amount"), as of the Final Quarter End Test Date and the Preliminary Quarter End Test Date, declined by 10% or more from (A) its level 10 quarters before the Final Quarter End Test Date (the "Benchmark Quarter End Test Date"), for Benchmark Quarter End Test Dates after August 4, 2017 (the date of the Separation), or (B) $49,282,000,000, the consolidated GAAP stockholders' equity, minus AOCI as of June 30, 2017 as reported on a pro forma basis reflecting the Separation in MetLife's Form 8-K filed with the SEC on August 9, 2017, for Benchmark Quarter End Test Dates prior to August 4, 2017.

Once a Trigger Event occurs for a Final Quarter End Test Date, the suspension of payments of dividends and interest (in the absence of sufficient net proceeds from the issuance of certain securities during specified periods) would continue until there is no Trigger Event at a subsequent Final Quarter End Test Date, and, if the test in the second paragraph above caused the Trigger Event, the adjusted stockholders' equity amount is no longer 10% or more below its level at the Benchmark Quarter End Test Date that is associated with the Trigger Event. In the case of successive Trigger Events, the suspension would continue until MetLife satisfies these conditions for each of the Trigger Events.

The junior subordinated debentures further provide that MetLife, Inc. may, at its option and provided that certain conditions are met, elect to defer payment of interest. See Note 15 of the Notes to the Consolidated Financial Statements. Any such elective deferral would trigger the dividend stopper provisions.

Further, MetLife, Inc. is a party to certain replacement capital covenants which limit its ability to eliminate these restrictions through the repayment, redemption or purchase of the junior subordinated debentures by requiring MetLife, Inc., with some limitations, to receive cash proceeds during a specified period from the sale of specified replacement securities prior to any repayment, redemption or purchase. See Note 15 of the Notes to the Consolidated Financial Statements for a description of such covenants.

Debt Repayments

See Notes 13 and 14 of the Notes to the Consolidated Financial Statements for further information on long-term and short-term debt and the collateral financing arrangement, respectively, including:

- For the years ended December 31, 2019 and 2018, following regulatory approval, MetLife Reinsurance Company of Charleston, a wholly-owned subsidiary of MetLife, Inc., repurchased and canceled $67 million and $61 million, respectively, in aggregate principal amount of its surplus notes, which were reported in collateral financing arrangement on the consolidated balance sheets;
- In August 2018, MetLife, Inc. repaid at maturity the remaining $533 million of its 6.817% senior notes.

Debt Repurchases, Redemptions and Exchanges

We may from time to time seek to retire or purchase our outstanding debt through cash purchases, redemptions and/or exchanges for other securities, in open market purchases, privately negotiated transactions or otherwise. Any such repurchases, redemptions, or exchanges will be dependent upon several factors, including our liquidity requirements, contractual restrictions, general market conditions, and applicable regulatory, legal and accounting factors. Whether or not to repurchase or redeem any debt and the size and timing of any such repurchases or redemptions will be determined at our discretion.

In June 2019, MetLife, Inc. redeemed for cash and canceled its £400 million aggregate principal amount 5.250% senior notes due June 2020 and the remaining $368 million aggregate principal amount of its 4.750% senior notes due February 2021.

See Note 13 of the Notes to the Consolidated Financial Statements for further information on long-term and short-term debt including the FVO Brighthouse Common Stock exchange.

Support Agreements

MetLife, Inc. and several of its subsidiaries (each, an “Obligor”) are parties to various capital support commitments and guarantees with subsidiaries. Under these arrangements, each Obligor has agreed to cause the applicable entity to meet specified capital and surplus levels or has guaranteed certain contractual obligations. We anticipate that in the event these arrangements place demands upon us, there will be sufficient liquidity and capital to enable us to meet such demands. See Note 5 of the Notes to the MetLife, Inc. (Parent Company Only) Condensed Financial Information included in Schedule II of the Financial Statement Schedules.

Insurance Liabilities

Liabilities arising from our insurance activities primarily relate to benefit payments under various life insurance, property and casualty, annuity and group pension products, as well as payments for policy surrenders, withdrawals and loans. For annuity or deposit type products, surrender or lapse behavior differs somewhat by segment. In the MetLife Holdings segment, which includes individual annuities, lapses and surrenders tend to occur in the normal course of business. For both the years ended December 31, 2019 and 2018, general account surrenders and withdrawals from annuity products were $1.8 billion. In the RIS business within the U.S. segment, which includes pension risk transfers, bank-owned life insurance and other fixed annuity contracts, as well as funding agreements and other capital market products, most of the products offered have fixed maturities or fairly predictable surrenders or withdrawals. With regard to the RIS business products that provide customers with limited rights to accelerate payments, at December 31, 2019, there were funding agreements totaling $123 million that could be put back to the Company.

Pledged Collateral

We pledge collateral to, and have collateral pledged to us by, counterparties in connection with our derivatives. At December 31, 2019 and 2018, we had received pledged cash collateral from counterparties of $6.3 billion and $5.0 billion, respectively. At December 31, 2019 and 2018, we had pledged cash collateral to counterparties of $275 million and $283 million, respectively. See Note 9 of the Notes to the Consolidated Financial Statements for additional information about collateral pledged to us, collateral we pledge and derivatives subject to credit contingent provisions.

We pledge collateral and have had collateral pledged to us, and may be required from time to time to pledge additional collateral or be entitled to have additional collateral pledged to us, in connection with the collateral financing arrangement related to the reinsurance of closed block liabilities. See Note 14 of the Notes to the Consolidated Financial Statements.

We pledge collateral from time to time in connection with funding agreements and advance agreements. See Note 4 of the Notes to the Consolidated Financial Statements.

Securities Lending and Repurchase Agreements

We participate in a securities lending program and in short-term repurchase agreements whereby securities are loaned to unaffiliated financial institutions. We obtain collateral, usually cash, from the borrower, which must be returned to the borrower when the loaned securities are returned to us. Through these arrangements, we were liable for cash collateral under our control of $19.7 billion and $19.1 billion at December 31, 2019 and 2018, respectively, including a portion that may require the immediate return of cash collateral we hold. See Note 8 of the Notes to the Consolidated Financial Statements.

Litigation

We establish liabilities for litigation and regulatory loss contingencies when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. For material matters where a loss is believed to be reasonably possible but not probable, no accrual is made but we disclose the nature of the contingency and an aggregate estimate of the reasonably possible range of loss in excess of amounts accrued, when such an estimate can be made. It is not possible to predict the ultimate outcome of all pending investigations and legal proceedings. In some of the matters referred to herein, very large and/or indeterminate amounts, including punitive and treble damages, are sought. Given the large and/or indeterminate amounts sought in certain of these matters and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material adverse effect on our consolidated net income or cash flows in particular quarterly or annual periods. See Note 21 of the Notes to the Consolidated Financial Statements.

Acquisitions

Cash outflows for acquisitions and investments in strategic partnerships for the years ended December 31, 2019 and 2018 were $32 million and $0, respectively.

Contractual Obligations

The following table summarizes our major contractual obligations at December 31, 2019:

	Total	One Year or Less	More than One Year to Three Years	More than Three Years to Five Years	More than Five Years
			(In millions)		
Insurance liabilities	$ 340,290	$ 21,848	$ 13,752	$ 13,424	$ 291,266
Policyholder account balances	237,319	29,887	28,556	18,406	160,470
Payables for collateral under securities loaned and other transactions	26,745	26,745	—	—	—
Debt	31,600	1,201	2,416	4,791	23,192
Investment commitments	12,181	11,861	275	43	2
Operating leases	1,902	285	495	406	716
Other	19,353	18,966	—	—	387
Total	$ 669,390	$ 110,793	$ 45,494	$ 37,070	$ 476,033

Insurance Liabilities

Insurance liabilities include future policy benefits, other policy-related balances, policyholder dividends payable and the policyholder dividend obligation, which are all reported on the consolidated balance sheet and are more fully described in Notes 1 and 4 of the Notes to the Consolidated Financial Statements. The amounts presented reflect future estimated cash payments and (i) are based on mortality, morbidity, lapse and other assumptions comparable with our experience and expectations of future payment patterns; and (ii) consider future premium receipts on current policies in-force. All estimated cash payments presented are undiscounted as to interest, net of estimated future premiums on in-force policies and gross of any reinsurance recoverable. Payment of amounts related to policyholder dividends left on deposit are projected based on assumptions of policyholder withdrawal activity. Because the exact timing and amount of the ultimate policyholder dividend obligation is subject to significant uncertainty and the amount of the policyholder dividend obligation is based upon a long-term projection of the performance of the closed block, we have reflected the obligation at the amount of the liability, if any, presented on the consolidated balance sheet in the more than five years category. Additionally, the more than five years category includes estimated payments due for periods extending for more than 100 years.

The sum of the estimated cash flows of $340.3 billion exceeds the liability amounts of $214.8 billion included on the consolidated balance sheet principally due to (i) the time value of money, which accounts for a substantial portion of the difference; (ii) differences in assumptions, most significantly mortality, between the date the liabilities were initially established and the current date; and (iii) liabilities related to accounting conventions, or which are not contractually due, which are excluded.

Actual cash payments may differ significantly from the liabilities as presented on the consolidated balance sheet and the estimated cash payments as presented due to differences between actual experience and the assumptions used in the establishment of these liabilities and the estimation of these cash payments.

For the majority of our insurance operations, estimated contractual obligations for future policy benefits and policyholder account balances, as presented, are derived from the annual asset adequacy analysis used to develop actuarial opinions of statutory reserve adequacy for state regulatory purposes. These cash flows are materially representative of the cash flows under GAAP. See "— Policyholder Account Balances."

Policyholder Account Balances

See Notes 1 and 4 of the Notes to the Consolidated Financial Statements for a description of the components of policyholder account balances. See "— Insurance Liabilities" regarding the source and uncertainties associated with the estimation of the contractual obligations related to future policy benefits and policyholder account balances.

Amounts presented represent the estimated cash payments undiscounted as to interest and including assumptions related to the receipt of future premiums and deposits; withdrawals, including unscheduled or partial withdrawals; policy lapses; surrender charges; annuitization; mortality; future interest credited; policy loans and other contingent events as appropriate for the respective product type. Such estimated cash payments are also presented net of estimated future premiums on policies currently in-force and gross of any reinsurance recoverable. For obligations denominated in foreign currencies, cash payments have been estimated using current spot foreign currency rates.

The sum of the estimated cash flows of $237.3 billion exceeds the liability amount of $192.6 billion included on the consolidated balance sheet principally due to (i) the time value of money, which accounts for a substantial portion of the difference; (ii) differences in assumptions, between the date the liabilities were initially established and the current date; and (iii) liabilities related to accounting conventions, or which are not contractually due, which are excluded.

Payables for Collateral Under Securities Loaned and Other Transactions

We have accepted cash collateral in connection with securities lending, repurchase agreements, FHLB of Boston short-term advance agreements and derivatives. As these transactions expire within the next year and the timing of the return of the derivatives collateral is uncertain, the return of the collateral has been included in the one year or less category in the table above. We also held non-cash collateral, which is not reflected as a liability on the consolidated balance sheet, of $1.7 billion at December 31, 2019.

Debt

Amounts presented for debt include short-term debt, long-term debt, the collateral financing arrangement and junior subordinated debt securities, the total of which differs from the total of the corresponding amounts presented on the consolidated balance sheet as the amounts presented herein (i) do not include premiums or discounts upon issuance or purchase accounting fair value adjustments; (ii) include future interest on such obligations for the period from January 1, 2020 through maturity; and (iii) do not include long-term debt relating to CSEs at December 31, 2019 as such debt does not represent our contractual obligation. Future interest on variable rate debt was computed using prevailing rates at December 31, 2019 and, as such, does not consider the impact of future rate movements. Future interest on fixed rate debt was computed using the stated rate on the obligations for the period from January 1, 2020 through maturity, except with respect to junior subordinated debt which was computed using the stated rates through the scheduled redemption dates as it is our expectation that such obligations will be redeemed as scheduled. Inclusion of interest payments on junior subordinated debt securities through the final maturity dates would increase the contractual obligation by $7.7 billion. Pursuant to the collateral financing arrangement, MetLife, Inc. may be required to deliver cash or pledge collateral to the unaffiliated financial institution. See Note 14 of the Notes to the Consolidated Financial Statements.

Investment Commitments

To enhance the return on our investment portfolio, we commit to lend funds under mortgage loans, bank credit facilities, bridge loans and private corporate bond investments and we commit to fund partnership investments. In the table above, the timing of the funding of mortgage loans and private corporate bond investments is based on the expiration dates of the corresponding commitments. As it relates to commitments to fund partnerships and bank credit facilities, we anticipate that these amounts could be invested any time over the next five years; however, as the timing of the fulfillment of the obligation cannot be predicted, such obligations are generally presented in the one year or less category. Commitments to fund bridge loans are short-term obligations and, as a result, are presented in the one year or less category. See Note 21 of the Notes to the Consolidated Financial Statements and "— Off-Balance Sheet Arrangements."

Operating Leases

As a lessee, we have various operating leases, primarily for office space. Contractual provisions exist that could increase or accelerate those lease obligations presented, including various leases with early buyouts and/or escalation clauses. However, the impact of any such transactions would not be material to our financial position or results of operations. See Note 11 of the Notes to the Consolidated Financial Statements.

Other

Other obligations presented are principally comprised of amounts due under reinsurance agreements, payables related to securities purchased but not yet settled, securities sold short, accrued interest on debt obligations, estimated fair value of derivative obligations, deferred compensation arrangements, guaranty liabilities, and accruals and accounts payable due under contractual obligations, which are all reported in other liabilities on the consolidated balance sheet. If the timing of any of these other obligations is sufficiently uncertain, the amounts are included within the one year or less category. Items reported in other liabilities on the consolidated balance sheet that were excluded from the table represent accounting conventions or are not liabilities due under contractual obligations. Unrecognized tax benefits and related accrued interest totaling $295 million were excluded as the timing of payment could not be reliably determined at December 31, 2019.

Separate account liabilities are excluded as they are fully funded by cash flows from the corresponding separate account assets and are set equal to the estimated fair value of separate account assets.

We also enter into agreements to purchase goods and services in the normal course of business; however, such amounts are excluded as these purchase obligations were not material to our consolidated results of operations or financial position at December 31, 2019.

Additionally, we have agreements in place for services we conduct, generally at cost, between subsidiaries relating to insurance, reinsurance, loans and capitalization. Intercompany transactions have been eliminated in consolidation. Intercompany transactions among insurance subsidiaries and affiliates have been approved by the appropriate insurance regulators as required.

MetLife, Inc.

Liquidity and Capital Management

Liquidity and capital are managed to preserve stable, reliable and cost-effective sources of cash to meet all current and future financial obligations and are provided by a variety of sources, including a portfolio of liquid assets, a diversified mix of short- and long-term funding sources from the wholesale financial markets and the ability to borrow through credit and committed facilities. Liquidity is monitored through the use of internal liquidity risk metrics, including the composition and level of the liquid asset portfolio, timing differences in short-term cash flow obligations, access to the financial markets for capital and debt transactions and exposure to contingent draws on MetLife, Inc.'s liquidity. MetLife, Inc. is an active participant in the global financial markets through which it obtains a significant amount of funding. These markets, which serve as cost-effective sources of funds, are critical components of MetLife, Inc.'s liquidity and capital management. Decisions to access these markets are based upon relative costs, prospective views of balance sheet growth and a targeted liquidity profile and capital structure. A disruption in the financial markets could limit MetLife, Inc.'s access to liquidity.

MetLife, Inc.'s ability to maintain regular access to competitively priced wholesale funds is fostered by its current credit ratings from the major credit rating agencies. We view our capital ratios, credit quality, stable and diverse earnings streams, diversity of liquidity sources and our liquidity monitoring procedures as critical to retaining such credit ratings. See "— The Company — Rating Agencies."

Liquidity

For a summary of MetLife, Inc.'s liquidity, see "— The Company — Liquidity."

Capital

For a summary of MetLife, Inc.'s capital, see "— The Company — Capital." See also "— The Company — Liquidity and Capital Uses — Common Stock Repurchases" for information regarding MetLife, Inc.'s common stock repurchases.

Liquid Assets

At December 31, 2019 and 2018, MetLife, Inc. and other MetLife holding companies had $4.2 billion and $3.0 billion, respectively, in liquid assets. Of these amounts, $3.0 billion and $2.4 billion were held by MetLife, Inc. and $1.2 billion and $607 million were held by other MetLife holding companies at December 31, 2019 and 2018, respectively. Liquid assets include cash and cash equivalents, short-term investments and publicly-traded securities, excluding assets that are pledged or otherwise committed. Assets pledged or otherwise committed include amounts received in connection with derivatives and a collateral financing arrangement.

Liquid assets held in non-U.S. holding companies are generated in part through dividends from non-U.S. insurance operations. Such dividends are subject to local insurance regulatory requirements, as discussed in "— Liquidity and Capital Sources — Dividends from Subsidiaries." The cumulative earnings of certain active non-U.S. operations have historically been reinvested indefinitely in such non-U.S. operations. Following a post-Separation review of our capital needs, the Company repatriated $400 million of pre-2017 earnings in the second quarter of 2018. As a result of U.S. Tax Reform, we expect to repatriate future foreign earnings back to the U.S. with minimal or no additional U.S. tax. See Note 19 of the Notes to the Consolidated Financial Statements and "— Risk Factors — Regulatory and Legal Risks — Changes in Tax Laws or Interpretations of Such Laws Could Reduce Our Earnings and Materially Impact Our Operations by Increasing Our Corporate Taxes and Making Some of Our Products Less Attractive to Consumers."

See "— Executive Summary — Consolidated Company Outlook," for the targeted level of liquid assets at the holding companies.

MetLife, Inc. and Other MetLife Holding Companies Sources and Uses of Liquid Assets and Sources and Uses of Liquid Assets included in Free Cash Flow

MetLife, Inc.'s sources and uses of liquid assets, as well as sources and uses of liquid assets included in free cash flow are summarized as follows.

	Year Ended December 31, 2019		Year Ended December 31, 2018	
	Sources and Uses of Liquid Assets	Sources and Uses of Liquid Assets Included in Free Cash Flow	Sources and Uses of Liquid Assets	Sources and Uses of Liquid Assets Included in Free Cash Flow
	(In millions)			
MetLife, Inc. (Parent Company Only)				
Sources:				
Dividends and returns of capital from subsidiaries (1)	$ 4,800	$ 4,800	$ 7,454	$ 7,454
Long-term debt issued (2)	1,373	494	—	—
Repayments on and (issuances of) loans to subsidiaries and related interest, net (3)	—	—	—	—
Preferred stock issued	—	—	1,274	—
Other, net (4)	320	196	—	—
Total sources	6,493	5,490	8,728	7,454
Uses:				
Capital contributions to subsidiaries (5)	75	75	767	767
Long-term debt repaid — unaffiliated	877	—	1,759	—
Interest paid on debt and financing arrangements — unaffiliated	817	817	964	964
Dividends on common stock	1,643	—	1,678	—
Treasury stock acquired in connection with share repurchases	2,285	—	3,992	—
Dividends on preferred stock	178	178	141	141
Issuances of and (repayments on) loans to subsidiaries and related interest, net (3)	44	44	63	63
Other, net (4)	—	—	1,029	1,083
Total uses	5,919	1,114	10,393	3,018
Net increase (decrease) in liquid assets, MetLife, Inc. (Parent Company Only)	574		(1,665)	
Liquid assets, beginning of year	2,430		4,095	
Liquid assets, end of year	$ 3,004		$ 2,430	
Free Cash Flow, MetLife, Inc. (Parent Company Only)		4,376		4,436
Net cash provided by operating activities, MetLife, Inc. (Parent Company Only)	$ 4,177		$ 5,494	
Other MetLife Holding Companies				
Sources:				
Dividends and returns of capital from subsidiaries	$ 2,199	$ 2,199	$ 2,836	$ 2,836
Capital contributions from MetLife, Inc.	—	—	—	—
Total sources	2,199	2,199	2,836	2,836
Uses:				
Capital contributions to subsidiaries	67	67	57	57
Repayments on and (issuance of) loans to subsidiaries and affiliates and related interest, net	16	16	6	6
Dividends and returns of capital to MetLife, Inc.	1,100	1,100	3,200	3,200
Other, net	444	444	603	603
Total uses	1,627	1,627	3,866	3,866
Net increase (decrease) in liquid assets, Other MetLife Holding Companies	572		(1,030)	
Liquid assets, beginning of year	613		1,643	
Liquid assets, end of year	$ 1,185		$ 613	
Free Cash Flow, Other MetLife Holding Companies		572		(1,030)
Net increase (decrease) in liquid assets, All Holding Companies	$ 1,146		$ (2,695)	
Free Cash Flow, All Holding Companies (6) (7)		$ 4,948		$ 3,406

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(1) Dividends and returns of capital to MetLife, Inc. included \$3.7 billion and \$4.3 billion from operating subsidiaries and \$1.1 billion and \$3.2 billion from other MetLife holding companies for the years ended December 31, 2019 and 2018, respectively.

(2) Included in free cash flow is the portion of long-term debt issued that represents incremental debt to be at or below target leverage ratios.

(3) See MetLife, Inc. (Parent Company Only) Condensed Statements of Cash Flows included in Schedule II of the Financial Statement Schedules for information regarding the source of liquid assets from receipts on loans to subsidiaries (excluding interest) and the use of liquid assets related to the issuances of loans to subsidiaries (excluding interest).

(4) Other, net includes \$155 million and (\$877) million of net receipts (payments) by MetLife, Inc. to and from subsidiaries under a tax sharing agreement and tax payments to tax agencies for the years ended December 31, 2019 and 2018, respectively.

(5) Amounts to fund business acquisitions were \$0 (included in capital contributions to subsidiaries) at both years ended December 31, 2019 and 2018.

(6) In 2018, \$268 million of Separation-related items (comprised of certain Separation-related inflows primarily related to reinsurance benefit from Brighthouse) were included in free cash flow, which increased our holding companies' liquid assets, as well as our free cash flow ratio. Excluding these Separation-related items, adjusted free cash flow would be \$3.1 billion for the year ended December 31, 2018.

(7) See "— Non-GAAP and Other Financial Disclosures" for the reconciliation of net cash provided by operating activities of MetLife, Inc. to free cash flow of all holding companies.

Sources and Uses of Liquid Assets of MetLife, Inc.

The primary sources of MetLife, Inc.'s liquid assets are dividends and returns of capital from subsidiaries, issuances of long-term debt, issuances of common and preferred stock, and net receipts from subsidiaries under a tax sharing agreement. MetLife, Inc.'s insurance subsidiaries are subject to regulatory restrictions on the payment of dividends imposed by the regulators of their respective domiciles. See "— Liquidity and Capital Sources — Dividends from Subsidiaries."

The primary uses of MetLife, Inc.'s liquid assets are principal and interest payments on long-term debt, dividends on and repurchases of common and preferred stock, capital contributions to subsidiaries, funding of business acquisitions, income taxes and operating expenses. MetLife, Inc. is party to various capital support commitments and guarantees with certain of its subsidiaries. See "— Liquidity and Capital Uses — Support Agreements."

In addition, MetLife, Inc. issues loans to subsidiaries or subsidiaries issue loans to MetLife, Inc. Accordingly, changes in MetLife, Inc. liquid assets include issuances of loans to subsidiaries, proceeds of loans from subsidiaries and the related repayment of principal and payment of interest on such loans. See "— Liquidity and Capital Sources — Affiliated Long-term Debt" and "— Liquidity and Capital Uses — Affiliated Capital and Debt Transactions."

Sources and Uses of Liquid Assets of Other MetLife Holding Companies

The primary sources of liquid assets of other MetLife holding companies are dividends, returns of capital and remittances from their subsidiaries and branches, principally non-U.S. insurance companies; capital contributions received; receipts of principal and interest on loans to subsidiaries and affiliates and borrowings from subsidiaries and affiliates. MetLife, Inc.'s non-U.S. operations are subject to regulatory restrictions on the payment of dividends imposed by local regulators. See "— Liquidity and Capital Sources — Dividends from Subsidiaries."

The primary uses of liquid assets of other MetLife holding companies are capital contributions paid to their subsidiaries and branches, principally non-U.S. insurance companies; loans to subsidiaries and affiliates; principal and interest paid on loans from subsidiaries and affiliates; dividends and returns of capital to MetLife, Inc. and the following items, which are reported within other, net: business acquisitions; and operating expenses. There were no uses of liquid assets of other MetLife holding companies to fund business acquisitions during the years ended December 31, 2019 or 2018.

Liquidity and Capital Sources

In addition to the description of liquidity and capital sources in "— The Company — Summary of the Company's Primary Sources and Uses of Liquidity and Capital" and "— The Company — Liquidity and Capital Sources," MetLife, Inc.'s primary sources of liquidity and capital are set forth below.

Dividends from Subsidiaries

MetLife, Inc. relies, in part, on dividends from its subsidiaries to meet its cash requirements. MetLife, Inc.'s insurance subsidiaries are subject to regulatory restrictions on the payment of dividends imposed by the regulators of their respective domiciles. See Note 16 of the Notes to the Consolidated Financial Statements. The dividend limitation for U.S. insurance subsidiaries is generally based on the surplus to policyholders at the end of the immediately preceding calendar year and statutory net gain from operations for the immediately preceding calendar year. Statutory accounting practices, as prescribed by insurance regulators of various states in which we conduct business, differ in certain respects from accounting principles used in financial statements prepared in conformity with GAAP. The significant differences relate to the treatment of DAC, certain deferred income tax, required investment liabilities, statutory reserve calculation assumptions, goodwill and surplus notes.

The table below sets forth the dividends permitted to be paid by MetLife, Inc.'s primary U.S. insurance subsidiaries without insurance regulatory approval and the actual dividends paid:

Company	2020	2019		2018	
	Permitted Without Approval (1)	Paid (2)	Permitted Without Approval (1)	Paid (2)	Permitted Without Approval (1)
			(In millions)		
Metropolitan Life Insurance Company	$ 3,272	$ 3,065	$ 3,065	$ 3,736 (3)	$ 3,075
American Life Insurance Company	$ 51	$ 1,100	$ —	$ 3,200	$ —
Metropolitan Property and Casualty Insurance Company	$ 114	$ 430	$ 171	$ 233	$ 125
Metropolitan Tower Life Insurance Company (4)	$ 149	$ —	$ 154	$ 191 (4)	$ 73
General American Life Insurance Company (4)	N/A	$ —	N/A	$ —	$ 118

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(1) Reflects dividend amounts that may be paid during the relevant year without prior regulatory approval ("ordinary dividends"). However, because dividend tests may be based on dividends previously paid over rolling 12-month periods, if paid before a specified date during such year, some or all of such dividends may require regulatory approval.

(2) Reflects all amounts paid, including those where regulatory approval was obtained as required ("extraordinary dividends").

(3) Represents ordinary dividends of $3.0 billion and an extraordinary dividend of $705 million. The extraordinary dividend was paid in cash with proceeds from the sale to an affiliate of certain property, equipment, leasehold improvements and computer software that were non-admitted by MLIC for statutory accounting purposes. The affiliate received a capital contribution in cash from MetLife, Inc. to fund the purchase.

(4) In April 2018, MTL merged with GALIC ("MTL Merger"). The surviving entity of the merger was MTL, which re-domesticated from Delaware to Nebraska immediately prior to the merger. The total dividends paid of $191 million is equal to the sum of the individual 2018 ordinary dividends that MTL and GALIC would each have been permitted to pay computed on a stand-alone basis if the MTL Merger had not occurred.

In addition to the amounts presented in the table above, for the years ended December 31, 2019 and 2018, MetLife, Inc. also received cash payments of $195 million and $7 million, respectively, representing dividends from certain other subsidiaries. Additionally, for the years ended December 31, 2019 and 2018, MetLife, Inc. received cash returns of capital of $10 million and $87 million.

The dividend capacity of our non-U.S. operations is subject to similar restrictions established by the local regulators. The non-U.S. regulatory regimes also commonly limit dividend payments to the parent company to a portion of the subsidiary's prior year statutory income, as determined by the local accounting principles. The regulators of our non-U.S. operations, including the FSA, may also limit or not permit profit repatriations or other transfers of funds to the U.S. if such transfers are deemed to be detrimental to the solvency or financial strength of the non-U.S. operations, or for other reasons. Most of our non-U.S. subsidiaries are second tier subsidiaries which are owned by various non-U.S. holding companies. The capital and rating considerations applicable to our first tier subsidiaries may also impact the dividend flow into MetLife, Inc.

We proactively manage target and excess capital levels and dividend flows and forecast local capital positions as part of the financial planning cycle. The dividend capacity of certain U.S. and non-U.S. subsidiaries is also subject to business targets in excess of the minimum capital necessary to maintain the desired rating or level of financial strength in the relevant market. See "Risk Factors — Capital Risks — As a Holding Company, MetLife, Inc. Depends on the Ability of Its Subsidiaries to Pay Dividends, a Major Component of Holding Company Free Cash Flow" and Note 16 of the Notes to the Consolidated Financial Statements.

Affiliated Long-term Debt

See "Senior Notes — Affiliated" in Note 4 of the Notes to the MetLife, Inc. (Parent Company Only) Condensed Financial Information included in Schedule II of the Financial Statement Schedules for information on affiliated long-term debt.

Collateral Financing Arrangement and Junior Subordinated Debt Securities

For information on MetLife, Inc.'s collateral financing arrangement and junior subordinated debt securities, see Notes 14 and 15 of the Notes to the Consolidated Financial Statements, respectively.

Credit and Committed Facilities

See "— The Company — Liquidity and Capital Sources — Global Funding Sources — Credit and Committed Facilities," as well as Note 13 of the Notes to the Consolidated Financial Statements, for further information regarding the Company's unsecured revolving credit facility and certain committed facilities.

Long-term Debt Outstanding

The following table summarizes the outstanding long-term debt of MetLife, Inc. at:

	December 31, 2019	December 31, 2018
	(In millions)	
Long-term debt — unaffiliated	$ 12,379	$ 11,844
Long-term debt — affiliated (1)	$ 1,976	$ 1,957
Junior subordinated debt securities	$ 2,458	$ 2,456

(1) In July 2019, a ¥53.3 billion 1.448% senior note issued to MLIC matured and was refinanced with a ¥37.3 billion 1.602% senior note due July 2023 and a ¥16.0 billion 1.637% senior note due July 2026 issued to MLIC. In October 2019, a ¥26.5 billion 1.721% senior note issued to MLIC matured and was refinanced with a ¥26.5 billion 1.81% senior note due October 2029 issued to MLIC.

Debt and Facility Covenants

Certain of MetLife, Inc.'s debt instruments and committed facilities, as well as its unsecured revolving credit facility, contain various administrative, reporting, legal and financial covenants. MetLife, Inc. believes it was in compliance with all applicable financial covenants at December 31, 2019.

Liquidity and Capital Uses

The primary uses of liquidity of MetLife, Inc. include debt service, cash dividends on common and preferred stock, capital contributions to subsidiaries, common stock, preferred stock and debt repurchases, payment of general operating expenses and acquisitions. Based on our analysis and comparison of our current and future cash inflows from the dividends we receive from subsidiaries that are permitted to be paid without prior insurance regulatory approval, our investment portfolio and other cash flows and anticipated access to the capital markets, we believe there will be sufficient liquidity and capital to enable MetLife, Inc. to make payments on debt, pay cash dividends on its common and preferred stock, contribute capital to its subsidiaries, repurchase its common stock and certain of its other securities, pay all general operating expenses and meet its cash needs under current market conditions and reasonably possible stress scenarios.

In addition to the description of liquidity and capital uses in "— The Company — Liquidity and Capital Uses" and "— The Company — Contractual Obligations," MetLife, Inc.'s primary uses of liquidity and capital are set forth below.

Affiliated Capital and Debt Transactions

For the years ended December 31, 2019 and 2018, MetLife, Inc. invested a net amount of $89 million and $778 million, respectively, in various subsidiaries.

MetLife, Inc. lends funds, as necessary, through credit agreements or otherwise to its subsidiaries and affiliates, some of which are regulated, to meet their capital requirements or to provide liquidity. MetLife, Inc. had loans to subsidiaries outstanding of $100 million at both December 31, 2019 and 2018.

Debt Repayments

For information on MetLife, Inc.'s debt repayments, see "— The Company — Liquidity and Capital Uses — Debt Repayments." MetLife, Inc. intends to repay or refinance, in whole or in part, all the debt that is due in 2020.

Maturities of Senior Notes

The following table summarizes MetLife, Inc.'s outstanding senior notes by year of maturity, excluding any premium or discount and unamortized issuance costs, at December 31, 2019:

Year of Maturity	Principal	Interest Rate
	(In millions)	
Unaffiliated:		
2022	$ 500	3.05%
2023	$ 1,000	4.37%
2024	$ 1,000	3.60%
2024	$ 464	5.38%
2025 - 2046	$ 9,496	Ranging from 0.50% - 6.50%
Affiliated:		
2020	$ 244	0.82%
2021	$ 495	2.97%
2021	$ 503	3.14%
2023	$ 343	1.60%
2026-2029	$ 391	Ranging from 1.64% - 1.81%

Support Agreements

MetLife, Inc. is party to various capital support commitments and guarantees with certain of its subsidiaries. See Note 5 of the Notes to the MetLife, Inc. (Parent Company Only) Condensed Financial Information included in Schedule II of the Financial Statement Schedules.

Adoption of New Accounting Pronouncements

See Note 1 of the Notes to the Consolidated Financial Statements.

Future Adoption of New Accounting Pronouncements

See Note 1 of the Notes to the Consolidated Financial Statements.

Non-GAAP and Other Financial Disclosures

In this report, the Company presents certain measures of its performance on a consolidated and segment basis that are not calculated in accordance with GAAP. We believe that these non-GAAP financial measures enhance the understanding of our performance by highlighting the results of operations and the underlying profitability drivers of our business. Segment-specific financial measures are calculated using only the portion of consolidated results attributable to that specific segment.

The following non-GAAP financial measures should not be viewed as substitutes for the most directly comparable financial measures calculated in accordance with GAAP:

Non-GAAP financial measures:	Comparable GAAP financial measures:
(i) adjusted earnings	(i) net income (loss)
(ii) adjusted earnings available to common shareholders	(ii) net income (loss) available to MetLife, Inc.'s common shareholders
(iii) free cash flow of all holding companies	(iii) MetLife, Inc. (parent company only) net cash provided by (used in) operating activities
(iv) net investment income, as reported on an adjusted basis	(iv) net investment income

Any of these financial measures shown on a constant currency basis reflect the impact of changes in foreign currency exchange rates and are calculated using the average foreign currency exchange rates for the most recent period and applied to the comparable prior period ("constant currency basis").

Reconciliations of these non-GAAP financial measures to the most directly comparable historical GAAP financial measures are included in the results of operations, see "— Results of Operations." Reconciliations of these non-GAAP measures to the most directly comparable GAAP measures are not accessible on a forward-looking basis because we believe it is not possible without unreasonable effort to provide other than a range of net investment gains and losses and net derivative gains and losses, which can fluctuate significantly within or outside the range and from period to period and may have a material impact on net income.

Our definitions of non-GAAP and other financial measures discussed in this report may differ from those used by other companies.

Adjusted earnings and related measures:

- adjusted earnings;
- adjusted earnings available to common shareholders; and
- adjusted earnings available to common shareholders on a constant currency basis.

These measures are used by management to evaluate performance and allocate resources. Consistent with GAAP guidance for segment reporting, adjusted earnings and components of, or other financial measures based on, adjusted earnings are also our GAAP measures of segment performance. Adjusted earnings and other financial measures based on adjusted earnings are also the measures by which senior management's and many other employees' performance is evaluated for the purposes of determining their compensation under applicable compensation plans. Adjusted earnings and other financial measures based on adjusted earnings allow analysis of our performance relative to our business plan and facilitate comparisons to industry results.

Adjusted earnings is defined as adjusted revenues less adjusted expenses, net of income tax. Adjusted loss is defined as negative adjusted earnings. Adjusted earnings available to common shareholders is defined as adjusted earnings less preferred stock dividends. For information relating to adjusted revenues and adjusted expenses, see "Financial Measures and Segment Accounting Policies" in Note 2 of the Notes to the Consolidated Financial Statements.

Return on equity, allocated equity and related measures:

- MetLife, Inc.'s common stockholders' equity, excluding AOCI other than FCTA, is defined as MetLife, Inc.'s common stockholders' equity, excluding the net unrealized investment gains (losses) and defined benefit plans adjustment components of AOCI, net of income tax.
- Adjusted return on MetLife, Inc.'s common stockholders' equity is defined as adjusted earnings available to common shareholders divided by MetLife, Inc.'s average common stockholders' equity.
- Adjusted return on MetLife, Inc.'s common stockholders' equity, excluding AOCI other than FCTA is defined as adjusted earnings available to common shareholders divided by MetLife, Inc.'s average common stockholders' equity, excluding AOCI other than FCTA.
- Allocated equity is the portion of MetLife, Inc.'s common stockholders' equity that management allocates to each of its segments and sub-segments based on local capital requirements and economic capital. See "— Economic Capital." Allocated equity excludes the impact of AOCI other than FCTA.

The above measures represent a level of equity consistent with the view that, in the ordinary course of business, we do not plan to sell most investments for the sole purpose of realizing gains or losses. Also, refer to the utilization of adjusted earnings and components of, or other financial measures based on, adjusted earnings mentioned above.

Expense ratio and direct expense ratio:

- Expense ratio: other expenses, net of capitalization of DAC, divided by premiums, fees and other revenues.
- Direct expense ratio: direct expenses, on an adjusted basis, divided by adjusted premiums, fees and other revenues. Direct expenses are comprised of employee-related costs, third party staffing costs, and general and administrative expenses.

- Direct expense ratio, excluding total notable items related to direct expenses and pension risk transfers: direct expenses, on an adjusted basis, excluding total notable items related to direct expenses, divided by adjusted premiums, fees and other revenues, excluding pension risk transfers.

The following additional information is relevant to an understanding of our performance results:

- We sometimes refer to sales activity for various products. These sales statistics do not correspond to revenues under GAAP, but are used as relevant measures of business activity. Further, sales statistics for our Latin America, Asia and EMEA segments are on a constant currency basis.
- Near-term represents one to three years.
- Asymmetrical and non-economic accounting refers to: (i) the portion of net derivative gains (losses) on embedded derivatives attributable to the inclusion of our credit spreads in the liability valuations, (ii) hedging activity that generates net derivative gains (losses) and creates fluctuations in net income because hedge accounting cannot be achieved and the item being hedged does not a have an offsetting gain or loss recognized in earnings, (iii) inflation-indexed benefit adjustments associated with contracts backed by inflation-indexed investments and amounts associated with periodic crediting rate adjustments based on the total return of a contractually referenced pool of assets and other pass through adjustments, and (iv) impact of changes in foreign currency exchange rates on the re-measurement of foreign denominated unhedged funding agreements and financing transactions to the U.S. dollar and the re-measurement of certain liabilities from non-functional currencies to functional currencies. We believe that excluding the impact of asymmetrical and non-economic accounting from total GAAP results enhances investor understanding of our performance by disclosing how these accounting practices affect reported GAAP results.
- Notable items represent a positive (negative) impact to adjusted earnings available to common shareholders. Notable items reflect the unexpected impact of events that affect MetLife’s results, but that were unknown and that MetLife could not anticipate when it devised its Business Plan. Notable items also include certain items regardless of the extent anticipated in the Business Plan, to help investors have a better understanding of MetLife’s results and to evaluate and forecast those results.
- The Company uses a measure of free cash flow to facilitate an understanding of its ability to generate cash for reinvestment into its businesses or use in non-mandatory capital actions. The Company defines free cash flow as the sum of cash available at MetLife’s holding companies from dividends from operating subsidiaries, expenses and other net flows of the holding companies (including capital contributions to subsidiaries), and net contributions from debt to be at or below target leverage ratios. This measure of free cash flow is prior to capital actions, such as common stock dividends and repurchases, debt reduction and mergers and acquisitions. Free cash flow should not be viewed as a substitute for net cash provided by (used in) operating activities calculated in accordance with GAAP. The free cash flow ratio is typically expressed as a percentage of annual adjusted earnings available to common shareholders. A reconciliation of net cash provided by operating activities of MetLife, Inc. (parent company only) to free cash flow of all holding companies for the years ended December 31, 2019 and 2018 is provided below.

Reconciliation of Net Cash Provided by Operating Activities of MetLife, Inc. to Free Cash Flow of All Holding Companies	**Years Ended December 31,**	
	2019	**2018**
	(In millions)	
MetLife, Inc. (parent company only) net cash provided by operating activities	$ 4,177	$ 5,494
Adjustments from net cash provided by operating activities to free cash flow:		
Add: Incremental debt to be at or below target leverage ratios	494	—
Add: Capital contributions to subsidiaries	(75)	(767)
Add: Returns of capital from subsidiaries	10	87
Add: Investment portfolio and derivatives changes and other, net	(230)	(378)
MetLife, Inc. (parent company only) free cash flow	4,376	4,436
Other MetLife, Inc. holding companies:		
Add: Dividends and returns of capital from subsidiaries	2,199	2,836
Add: Capital contributions to subsidiaries	(67)	(57)
Add: Repayments on and (issuances of) loans to subsidiaries, net	(16)	(6)
Add: Other expenses	(720)	(771)
Add: Dividends and returns of capital to MetLife, Inc.	(1,100)	(3,200)
Add: Investment portfolio and derivative changes and other, net	276	168
Total other MetLife, Inc. holding companies free cash flow	572	(1,030)
Free cash flow of all holding companies (1)	$ 4,948	$ 3,406
Ratio of net cash provided by operating activities to consolidated net income (loss) available to MetLife, Inc.'s common shareholders:		
MetLife, Inc. (parent company only) net cash provided by operating activities	$ 4,177	$ 5,494
Consolidated net income (loss) available to MetLife, Inc.'s common shareholders (1)	$ 5,721	$ 4,982
Ratio of net cash provided by operating activities (parent company only) to consolidated net income (loss) available to MetLife, Inc.'s common shareholders (1) (2)	73%	110%
Ratio of free cash flow to adjusted earnings available to common shareholders:		
Free cash flow of all holding companies (3)	$ 4,948	$ 3,406
Consolidated adjusted earnings available to common shareholders (3)	$ 5,767	$ 5,461
Ratio of free cash flow of all holding companies to consolidated adjusted earnings available to common shareholders (3)	86%	62%

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(1) Consolidated net income (loss) available to MetLife, Inc.'s common shareholders for the year ended 2018 includes Separation-related costs of $80 million, net of income tax. Excluding this amount from the denominator of the ratio, this ratio, as adjusted, would be 109%. See "— Liquidity and Capital Resources — MetLife, Inc. — Liquid Assets — MetLife, Inc. and Other MetLife Holding Companies Sources and Uses of Liquid Assets and Sources and Uses of Liquid Assets included in Free Cash Flow."

(2) Including the free cash flow of other MetLife, Inc. holding companies of $572 million and ($1.0) billion for the years ended December 31, 2019 and 2018, respectively, in the numerator of the ratio, this ratio, as adjusted, would be 83% and 90%, respectively. Including the free cash flow of other MetLife, Inc. holding companies in the numerator of the ratio and excluding the Separation-related costs from the denominator of the ratio, this ratio, as adjusted, would be 88% for the year ended December 31, 2018.

(3) i) Consolidated adjusted earnings available to common shareholders for the year ended December 31, 2019, was positively impacted by notable items, primarily related to tax related adjustments, of $539 million, net of income tax, partially offset by expense initiative costs of $332 million, net of income tax. Excluding such notable items impacting consolidated adjusted earnings available to common shareholders from the denominator of the ratio, the adjusted free cash flow ratio for the year ended December 31, 2019, would be 87%.

ii) For the year ended December 31, 2018, $268 million of Separation-related items (comprised of certain Separation-related inflows primarily related to reinsurance benefit from Brighthouse) were included in free cash flow, which increased our holding companies' liquid assets, as well as our free cash flow ratio. Excluding these Separation-related items, adjusted free cash flow would be $3.1 billion for the year ended December 31, 2018. Consolidated adjusted earnings available to common shareholders for 2018 was negatively impacted by notable items, primarily related to expense initiative costs of $284 million, net of income tax, partially offset by tax adjustments of $247 million, net of income tax. Excluding the Separation-related items, which increased free cash flow, from the numerator of the ratio and excluding such notable items negatively impacting consolidated adjusted earnings available to common shareholders from the denominator of the ratio, the adjusted free cash flow ratio for the year ended December 31, 2018, would be 56%.

Subsequent Events

See Note 23 of the Notes to the Consolidated Financial Statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Risk Management

We have an integrated process for managing risk, which we conduct through multiple Board and senior management committees (financial and non-financial) across the GRM, ALM, Finance, Treasury, Investments and business segment departments. The risk committee structure is designed to provide a consolidated enterprise-wide assessment and management of risk. The ERC is responsible for reviewing all material risks to the enterprise and deciding on actions, if necessary, in the event risks exceed desired tolerances, taking into consideration industry best practices and the current environment to resolve or mitigate those risks. Additional committees at the MetLife, Inc. and subsidiary insurance company level manage capital and risk positions and establish corporate business standards.

Global Risk Management

Independent from the lines of business, the centralized GRM, led by the CRO, coordinates across all committees to ensure that all material risks are properly identified, measured, aggregated, managed and reported across the Company. The CRO reports to the Chief Executive Officer ("CEO") and is primarily responsible for maintaining and communicating the Company's enterprise risk policies and for monitoring and analyzing all material risks.

GRM considers and monitors a full range of risks against the Company's solvency, liquidity, earnings, business operations and reputation. GRM's primary responsibilities consist of:

- implementing a corporate risk framework, which outlines our enterprise approach for managing risk;
- developing policies and procedures for identifying, managing, measuring, monitoring and controlling those risks identified in the corporate risk framework;
- coordinating Own Risk and Solvency Assessments for Board, senior management and regulator use;
- establishing appropriate corporate risk tolerance levels;
- recommending risk appetite statements and investment general authorizations to the Board;
- measuring capital on an economic basis;
- recommending capital allocations on an economic capital basis; and
- reporting to (i) the Finance and Risk Committee of MetLife, Inc.'s Board of Directors; (ii) the Investment Committee of MetLife, Inc.'s Board of Directors; (iii) the Compensation Committee of MetLife, Inc.'s Board of Directors; and (iv) the financial and non-financial senior management committees on various aspects of risk.

Asset/Liability Management

We actively manage our assets using an approach that is liability driven and balances quality, diversification, asset/liability matching, liquidity, concentration and investment return. The goals of the investment process are to optimize, net of income tax, risk-adjusted investment income and risk-adjusted total return while ensuring that the assets and liabilities are reasonably aligned on a cash flow and duration basis. The ALM process is the shared responsibility of the ALM, GRM, and Investments departments, with the engagement of senior members of the business segments, and is governed by the ALM Committees. The ALM Committees' duties include reviewing and approving target portfolios investment guidelines and limits, approving significant portfolio and ALM strategies and providing oversight of the ALM process. The directives of the ALM Committees are carried out and monitored through ALM Working Groups which are set up to manage risk by geography, product or portfolio type. The ALM Steering Committee oversees the activities of the underlying ALM Committees and Working Groups. The ALM Steering Committee reports to the ERC.

We establish portfolio guidelines that define ranges and limits related to asset allocation, interest rate risk, liquidity, concentration and other risks for each major business segment, legal entity or insurance product group. These guidelines support implementation of investment strategies used to adequately fund our liabilities within acceptable levels of risk. We also establish hedging programs and associated investment portfolios for different blocks of business. The ALM Working Groups monitor these strategies and programs through regular review of portfolio metrics, such as effective duration, yield curve sensitivity, convexity, value at risk, market sensitivities (to interest rates, equity market levels, equity volatility, and foreign exchange rates), stress scenario payoffs, liquidity, foreign exchange, asset sector concentration and credit quality.

Market Risk Exposures

We regularly analyze our exposure to interest rate, foreign currency exchange rate and equity market price risk. As a result of that analysis, we have determined that the estimated fair values of certain assets and liabilities are materially exposed to changes in interest rates, foreign currency exchange rates and equity markets. We have exposure to market risk through our insurance operations and investment activities. For purposes of this disclosure, "market risk" is defined as the risk of loss resulting from changes in interest rates, foreign currency exchange rates and equity markets.

Interest Rates

Our exposure to interest rate changes results most significantly from our holdings of fixed maturity securities, as well as our interest rate sensitive liabilities. The fixed maturity securities AFS include U.S. and foreign government bonds, securities issued by government agencies, corporate bonds, mortgage-backed securities and ABS, all of which are mainly exposed to changes in medium- and long-term interest rates. The interest rate sensitive liabilities for purposes of this disclosure include debt, policyholder account balances related to certain investment type contracts, and embedded derivatives on variable annuities with guaranteed minimum benefits which have the same type of interest rate exposure (medium- and long-term interest rates) as fixed maturity securities AFS. The interest rate sensitive liabilities for purposes of this disclosure exclude a significant portion of the liabilities relating to insurance contracts. See "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition."

Foreign Currency Exchange Rates

Our exposure to fluctuations in foreign currency exchange rates against the U.S. dollar results from our holdings in non-U.S. dollar denominated fixed maturity and equity securities, mortgage loans, and certain liabilities, as well as through our investments in foreign subsidiaries. The foreign currency exchange rate liabilities for purposes of this disclosure exclude a significant portion of the liabilities relating to insurance contracts. The principal currencies that create foreign currency exchange rate risk in our investment portfolios and liabilities are the Euro, the Japanese yen and the British pound. Selectively, we use U.S. dollar assets to support certain long-duration foreign currency liabilities. Through our investments in foreign subsidiaries and joint ventures, we are primarily exposed to the Japanese yen, the Euro, the Australian dollar, the British pound, the Mexican peso, the Chilean peso and the Korean won. In addition to hedging with foreign currency swaps, forwards and options, local surplus in some countries may be held entirely or in part in U.S. dollar assets, which further minimize exposure to foreign currency exchange rate fluctuation risk. We have matched much of our foreign currency liabilities in our foreign subsidiaries with their respective foreign currency assets, thereby reducing our risk to foreign currency exchange rate fluctuation. See "Risk Factors — Economic Environment and Capital Markets Risks — Difficult Economic Conditions May Harm Our Businesses, Results of Operations or Financial Condition."

Equity Market

Along with investments in equity securities, we have exposure to equity market risk through certain liabilities that involve long-term guarantees on equity performance such as embedded derivatives on variable annuities with guaranteed minimum benefits and certain policyholder account balances. Equity exposures associated with limited partnership interests are excluded from this discussion as they are not considered financial instruments under GAAP.

Management of Market Risk Exposures

We use a variety of strategies to manage interest rate, foreign currency exchange rate and equity market risk, including the use of derivatives.

Interest Rate Risk Management

To manage interest rate risk, we analyze interest rate risk using various models, including multi-scenario cash flow projection models that forecast cash flows of the liabilities and their supporting investments, including derivatives. These projections involve evaluating the potential gain or loss on most of our in-force business under various increasing and decreasing interest rate environments. The NYDFS regulations require that we perform some of these analyses annually as part of our review of the sufficiency of our regulatory reserves. For several of our legal entities, we maintain segmented operating and surplus asset portfolios for the purpose of ALM and the allocation of investment income to product lines. In the U.S., for each segment, invested assets greater than or equal to the GAAP liabilities net of certain non-invested assets allocated to the segment are maintained, with any excess allocated to Corporate & Other. The business segments may reflect differences in legal entity, statutory line of business and any product market characteristic which may drive a distinct investment strategy with respect to duration, liquidity or credit quality of the invested assets. Certain smaller entities make use of unsegmented general accounts for which the investment strategy reflects the aggregate characteristics of liabilities in those entities. We measure relative sensitivities of the value of our assets and liabilities to changes in key assumptions utilizing internal models. These models reflect specific product characteristics and include assumptions based on current and anticipated experience regarding lapse, mortality and interest crediting rates. In addition, these models include asset cash flow projections reflecting interest payments, sinking fund payments, principal payments, bond calls, mortgage loan prepayments and defaults.

We employ product design, pricing and ALM strategies to reduce the potential effects of interest rate movements. Product design and pricing strategies include the use of surrender charges or restrictions on withdrawals in some products and the ability to reset crediting rates for certain products. ALM strategies include the use of derivatives. We also use reinsurance to mitigate interest rate risk.

We also use common industry metrics, such as duration and convexity, to measure the relative sensitivity of assets and liability values to changes in interest rates. In computing the duration of liabilities, we consider all policyholder guarantees and how we intend to set indeterminate policy elements such as interest credits or dividends. Each asset portfolio or portfolio group has a duration target based on the liability duration and the investment objectives of that portfolio. Where a liability cash flow may exceed the maturity of available assets, we may support such liabilities with equity investments, derivatives or interest rate curve mismatch strategies.

Foreign Currency Exchange Rate Risk Management

MetLife has a well-established Enterprise Foreign Exchange (“FX”) Risk Policy to manage foreign currency exchange rate exposures within its risk tolerance. In general, investments backing specific liabilities are currency matched. This is achieved through direct investments in matching currency or through the use of FX derivatives. Enterprise FX risk limits are established by the ERC. Management of each of our segments, with oversight from our FX Risk Committee and the respective ALM committee for the segment, is responsible for managing any foreign currency exchange rate exposure.

We use foreign currency swaps, forwards and options to mitigate the liability exposure, risk of loss and financial statement volatility associated with our investments in foreign subsidiaries, foreign currency denominated fixed income investments and the sale of certain insurance products.

Equity Market Risk Management

We manage equity market risk on an integrated basis with other risks through our ALM strategies, including the dynamic hedging of certain variable annuity guarantee benefits, as well as reinsurance, in order to limit losses, minimize exposure to large risks, and provide additional capacity for future growth. We also manage equity market risk exposure in our investment portfolio through the use of derivatives. These derivatives include exchange-traded equity futures, equity index options contracts, total rate of return swaps and equity variance swaps. This risk is managed by our ALM Unit in partnership with the Investments Department.

Hedging Activities

We use derivative contracts primarily to hedge a wide range of risks including interest rate risk, foreign currency exchange rate risk, and equity market risk. Derivative hedges are designed to reduce risk on an economic basis while considering their impact on financial results under different accounting regimes, including U.S. GAAP and local statutory accounting. Our derivative hedge programs vary depending on the type of risk being hedged. Some hedge programs are asset or liability specific while others are portfolio hedges that reduce risk related to a group of liabilities or assets. Our use of derivatives by major hedge programs is as follows:

- Risks Related to Guarantee Benefits — We use a wide range of derivative contracts to mitigate the risk associated with living guarantee benefits. These derivatives include equity and interest rate futures, interest rate swaps, currency futures/forwards, equity indexed options, total rate of return swaps, interest rate option contracts and equity variance swaps.
- Minimum Interest Rate Guarantees — For certain liability contracts, we provide the contractholder a guaranteed minimum interest rate. These contracts include certain fixed annuities and other insurance liabilities. We purchase interest rate caps and floors to reduce risk associated with these liability guarantees.
- Reinvestment Risk in Long-Duration Liability Contracts — Derivatives are used to hedge interest rate risk related to certain long-duration liability contracts. Hedges include interest rate swaps and swaptions.
- Foreign Currency Exchange Rate Risk — We use currency swaps, forwards and options to hedge foreign currency exchange rate risk. These hedges are generally used to swap foreign currency denominated bonds, investments in foreign subsidiaries or equity market exposures to U.S. dollars. Our foreign subsidiaries also use these hedges to swap non-local currency assets to local currency, to match liabilities.
- General ALM Hedging Strategies — In the ordinary course of managing our asset/liability risks, we use interest rate futures, interest rate swaps, interest rate caps, and inflation swaps. These hedges are designed to reduce interest rate risk or inflation risk related to the existing assets or liabilities or related to expected future cash flows.
- Macro Hedge Program — We use equity options, interest rate swaptions and interest rate swaps to mitigate the potential loss of legal entity statutory capital under stress scenarios.

Risk Measurement: Sensitivity Analysis

We measure market risk related to our market sensitive assets and liabilities based on changes in interest rates, foreign currency exchange rates and equity market prices utilizing a sensitivity analysis. For purposes of this disclosure, a significant portion of the liabilities relating to insurance contracts is excluded, as discussed further below. This analysis estimates the potential changes in estimated fair value based on a hypothetical 10% change (increase or decrease) in interest rates, foreign currency exchange rates and equity market prices. We believe that a 10% change (increase or decrease) in these market rates and prices is reasonably possible in the near term. In performing the analysis summarized below, we used market rates at December 31, 2019. The sensitivity analysis separately calculates each of our market risk exposures (interest rate, foreign currency exchange rate and equity market) relating to our assets and liabilities. We modeled the impact of changes in market rates and prices on the estimated fair values of our market sensitive assets and liabilities as follows:

- the net present values of our interest rate sensitive exposures resulting from a 10% change (increase or decrease) in interest rates;
- the U.S. dollar equivalent estimated fair values of our foreign currency exposures due to a 10% change (increase in the value of the U.S. dollar compared to all foreign currencies or decrease in the value of the U.S. dollar compared to all foreign currencies) in foreign currency exchange rates; and
- the estimated fair value of our equity market sensitive exposures due to a 10% change (increase or decrease) in equity market prices.

The sensitivity analysis is an estimate and should not be viewed as predictive of our future financial performance. We cannot ensure that our actual losses in any particular period will not exceed the amounts indicated in the table below. Limitations related to this sensitivity analysis include:

- interest sensitive and foreign currency exchange sensitive liabilities do not include $212.1 billion, at carrying value, of insurance contracts. Management believes that the changes in the economic value of those contracts under changing interest rates and changing foreign currency exchange rates would offset a significant portion of the fair value changes of interest sensitive and foreign currency exchange rate sensitive assets;
- the market risk information is limited by the assumptions and parameters established in creating the related sensitivity analysis, including the impact of prepayment rates on mortgage loans;
- sensitivities do not include the impact on asset or liability valuation of changes in market liquidity or changes in market credit spreads;
- foreign currency risk is not isolated for certain embedded derivatives within host asset and liability contracts, as the risk on these instruments is reflected as equity;
- for the derivatives that qualify as hedges, and for certain other assets such as mortgage loans, the impact on reported earnings may be materially different from the change in market values;
- the analysis excludes liabilities pursuant to insurance contracts and real estate holdings; and
- the model assumes that the composition of assets and liabilities remains unchanged throughout the period.

Accordingly, we use such models as tools and not as substitutes for the experience and judgment of our management. Based on our analysis of the impact of a 10% change (increase or decrease) in market rates and prices, we have determined that such a change could have a material adverse effect on the estimated fair value of certain assets and liabilities from interest rate, foreign currency exchange rate and equity market exposures.

The table below illustrates the potential loss in estimated fair value for each market risk exposure of our market sensitive assets and liabilities at:

	December 31, 2019
	(In millions)
Interest rate risk	$ 5,156
Foreign currency exchange rate risk	$ 8,332
Equity market risk	$ 33

The risk sensitivities derived used a 10% increase to interest rates, a 10% strengthening of the U.S. dollar against foreign currencies, and a 10% increase in equity prices. The potential losses in estimated fair value presented are for non-trading securities.

The table below provides additional detail regarding the potential loss in estimated fair value of our interest sensitive financial instruments due to a 10% increase in interest rates by type of asset or liability at:

	December 31, 2019		
	Notional Amount	Estimated Fair Value (1)	Assuming a 10% Increase in Interest Rates
		(In millions)	
Assets			
Fixed maturity securities AFS		$ 327,820	$ (4,558)
Equity securities		$ 1,342	(2)
FVO Securities		$ 1,248	(6)
Mortgage loans		$ 83,079	(577)
Policy loans		$ 11,655	(100)
Short-term investments		$ 3,850	(3)
Other invested assets		$ 1,872	—
Cash and cash equivalents		$ 16,598	(1)
Accrued investment income		$ 3,523	—
Premiums, reinsurance and other receivables		$ 3,884	(14)
Other assets		$ 319	(3)
Embedded derivatives within asset host contracts (2)		$ 60	—
Total assets			$ (5,264)
Liabilities (3)			
Policyholder account balances		$ 118,224	$ 639
Payables for collateral under securities loaned and other transactions		$ 26,745	—
Short-term debt		$ 235	—
Long-term debt		$ 15,830	307
Collateral financing arrangement		$ 810	—
Junior subordinated debt securities		$ 4,405	49
Other liabilities		$ 2,819	62
Embedded derivatives within liability host contracts (2)		$ 802	116
Total liabilities			$ 1,173
Derivative Instruments			
Interest rate swaps	$ 64,127	$ 5,465	$ (527)
Interest rate floors	$ 12,701	$ 155	(29)
Interest rate caps	$ 42,622	$ 13	12
Interest rate futures	$ 2,423	$ (1)	1
Interest rate options	$ 27,344	$ 763	(146)
Interest rate forwards	$ 7,493	$ (62)	(198)
Interest rate total return swaps	$ 1,048	$ (44)	(43)
Synthetic GICs	$ 30,341	$ —	—
Foreign currency swaps	$ 51,986	$ 379	(138)
Foreign currency forwards	$ 16,902	$ (392)	11
Currency futures	$ 880	$ 7	—
Currency options	$ 6,001	$ (58)	(4)
Credit default swaps	$ 14,464	$ 173	—
Equity futures	$ 4,540	$ (2)	(1)
Equity index options	$ 27,105	$ 17	(3)
Equity variance swaps	$ 1,115	$ 4	—
Equity total return swaps	$ 761	$ (70)	—
Total derivative instruments			$ (1,065)
Net Change			$ (5,156)

(1) Separate account assets and liabilities and Unit-linked investments and associated policyholder account balances, which are interest rate sensitive, are not included herein as any interest rate risk is borne by the contractholder, notwithstanding any general account guarantees which are included within embedded derivatives (see footnote (2) below) or included within future policy benefits and other policy-related balances (see footnote (3) below). FVO Securities and long-term debt exclude $3 million and $5 million, respectively, related to CSEs.

(2) Embedded derivatives are recognized on the consolidated balance sheet in the same caption as the host contract.

(3) Excludes $212.1 billion of liabilities, at carrying value, pursuant to insurance contracts reported within future policy benefits and other policy-related balances. These liabilities would economically offset a significant portion of the net change in fair value of our financial instruments resulting from a 10% increase in interest rates.

Sensitivity to rising interest rates decreased $0.5 billion to $5.2 billion at December 31, 2019 from $5.7 billion at December 31, 2018.

The table below provides additional detail regarding the potential loss in estimated fair value of our portfolio due to a 10% increase in the U.S. dollar compared to all foreign currencies at:

	December 31, 2019		
	Notional Amount	Estimated Fair Value (1)	Assuming a 10% Increase in the Foreign Exchange Rate
		(In millions)	
Assets			
Fixed maturity securities AFS		$ 327,820	$ (10,469)
Equity securities		$ 1,342	(76)
FVO Securities		$ 1,248	(99)
Mortgage loans		$ 83,079	(950)
Policy loans		$ 11,655	(159)
Short-term investments		$ 3,850	(235)
Other invested assets		$ 1,872	(329)
Cash and cash equivalents		$ 16,598	(413)
Accrued investment income		$ 3,523	(83)
Premiums, reinsurance and other receivables		$ 3,884	(62)
Other assets		$ 319	(18)
Embedded derivatives within asset host contracts (2)		$ 60	(6)
Total assets			$ (12,899)
Liabilities (3)			
Policyholder account balances		$ 118,224	$ 3,508
Payables for collateral under securities loaned and other transactions		$ 26,745	154
Long-term debt		$ 15,830	195
Other liabilities		$ 2,819	14
Embedded derivatives within liability host contracts (2)		$ 802	45
Total liabilities			$ 3,916
Derivative Instruments			
Interest rate swaps	$ 64,127	$ 5,465	$ (113)
Interest rate floors	$ 12,701	$ 155	—
Interest rate caps	$ 42,622	$ 13	—
Interest rate futures	$ 2,423	$ (1)	—
Interest rate options	$ 27,344	$ 763	(31)
Interest rate forwards	$ 7,493	$ (62)	(1)
Interest rate total return swaps	$ 1,048	$ (44)	—
Synthetic GICs	$ 30,341	$ —	—
Foreign currency swaps	$ 51,986	$ 379	1,524
Foreign currency forwards	$ 16,902	$ (392)	(794)
Currency futures	$ 880	$ 7	(88)
Currency options	$ 6,001	$ (58)	139
Credit default swaps	$ 14,464	$ 173	(8)
Equity futures	$ 4,540	$ (2)	—
Equity index options	$ 27,105	$ 17	23
Equity variance swaps	$ 1,115	$ 4	—
Equity total return swaps	$ 761	$ (70)	—
Total derivative instruments			$ 651
Net Change			$ (8,332)

(1) Does not necessarily represent those financial instruments solely subject to foreign currency exchange rate risk. Separate account assets and liabilities and Unit-linked investments and associated policyholder account balances, which are foreign currency exchange rate sensitive, are not included herein as any foreign currency exchange rate risk is borne by the contractholder, notwithstanding any general account guarantees which are included within embedded derivatives (see footnote (2) below) or included within future policy benefits and other policy-related balances (see footnote (3) below). FVO Securities and long-term debt exclude $3 million and $5 million, respectively, related to CSEs.

(2) Embedded derivatives are recognized on the consolidated balance sheet in the same caption as the host contract.

(3) Excludes $212.1 billion of liabilities, at carrying value, pursuant to insurance contracts reported within future policy benefits and other policy-related balances. These liabilities would economically offset a significant portion of the net change in fair value of our financial instruments resulting from a 10% appreciation in the U.S. dollar relative to all other currencies.

Sensitivity to foreign currency exchange rates increased $0.5 billion to $8.3 billion at December 31, 2019 from $7.8 billion at December 31, 2018. These sensitivities exclude those liabilities, at carrying value, pursuant to insurance contracts reported within future policy benefits and other policy-related balances. These liabilities would economically offset a significant portion of the net change in fair value of our financial instruments resulting from a 10% appreciation in the U.S. dollar relative to all other currencies.

The table below provides additional detail regarding the potential loss in estimated fair value of our portfolio due to a 10% increase in equity prices by type of asset or liability at:

	December 31, 2019		
	Notional Amount	Estimated Fair Value (1)	Assuming a 10% Increase in Equity Prices
		(In millions)	
Assets			
Equity securities		$ 1,342	$ 94
FVO Securities		$ 1,248	40
Embedded derivatives within asset host contracts (2)		$ 60	—
Total assets			$ 134
Liabilities (3)			
Policyholder account balances		$ 118,224	$ —
Embedded derivatives within liability host contracts (2)		$ 802	289
Total liabilities			$ 289
Derivative Instruments			
Interest rate swaps	$ 64,127	$ 5,465	$ —
Interest rate floors	$ 12,701	$ 155	—
Interest rate caps	$ 42,622	$ 13	—
Interest rate futures	$ 2,423	$ (1)	—
Interest rate options	$ 27,344	$ 763	—
Interest rate forwards	$ 7,493	$ (62)	—
Interest rate total return swaps	$ 1,048	$ (44)	—
Synthetic GICs	$ 30,341	$ —	—
Foreign currency swaps	$ 51,986	$ 379	—
Foreign currency forwards	$ 16,902	$ (392)	—
Currency futures	$ 880	$ 7	—
Currency options	$ 6,001	$ (58)	—
Credit default swaps	$ 14,464	$ 173	—
Equity futures	$ 4,540	$ (2)	(381)
Equity index options	$ 27,105	$ 17	6
Equity variance swaps	$ 1,115	$ 4	3
Equity total return swaps	$ 761	$ (70)	(84)
Total derivative instruments			$ (456)
Net Change			$ (33)

(1) Does not necessarily represent those financial instruments solely subject to equity price risk. Additionally, separate account assets and liabilities and Unit-linked investments and associated policyholder account balances, which are equity market sensitive, are not included herein as any equity market risk is borne by the contractholder, notwithstanding any general account guarantees which are included within embedded derivatives (see footnote (2) below) or included within future policy benefits and other policy-related balances (see footnote (3) below).

(2) Embedded derivatives are recognized on the consolidated balance sheet in the same caption as the host contract.

(3) Excludes $212.1 billion of liabilities, at carrying value, pursuant to insurance contracts reported within future policy benefits and other policy-related balances.

Sensitivity to a 10% equity market increase at December 31, 2019 was ($33) million compared to $1 million at December 31, 2018.

Item 8. Financial Statements and Supplementary Data

Index to Consolidated Financial Statements, Notes and Schedules

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of MetLife, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of MetLife, Inc. and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and the schedules listed in the Index to Consolidated Financial Statements, Notes and Schedules (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 20, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Fair Value of Level 3 Fixed Maturity Securities Determined Using Internal Matrix Pricing or Discounted Cash Flow Techniques — Refer to Notes 1, 8, and 10 to the consolidated financial statements

Critical Audit Matter Description

The Company has investments in certain fixed maturity securities classified as available-for-sale whose fair values are based on unobservable inputs that are supported by little or no market activity. When a price is not available in the active market, from an independent pricing service, or from independent broker quotations, management values the security using internal matrix pricing or discounted cash flow techniques. These investments are categorized as Level 3 and had an estimated fair value of $2.6 billion as of December 31, 2019.

Given management uses considerable judgment when estimating the fair value of Level 3 fixed maturity securities determined using internal matrix pricing or discounted cash flow techniques, performing audit procedures to evaluate the estimate of fair value required a high degree of auditor judgment and an increased extent of effort. This audit effort included the use of professionals with specialized skills and knowledge to assist in performing procedures and evaluating the audit evidence obtained.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the valuation of Level 3 fixed maturity securities determined using internal matrix pricing or discounted cash flow techniques included the following, among others:

- We tested the effectiveness of controls over the determination of fair value.
- We tested the accuracy and completeness of relevant security attributes, including credit ratings, maturity dates and coupon rates, used in the determination of Level 3 fair values.
- With the involvement of our fair value specialists, we developed independent fair value estimates for a sample and compared our estimates to the Company's estimates and evaluated differences. We developed our estimate by evaluating the observable and unobservable inputs used by management or developing independent inputs.
- We evaluated management's ability to accurately estimate fair value by comparing management's historical estimates to subsequent transactions, taking into account changes in market conditions subsequent to December 31, 2019.

Valuation of Future Policy Benefits for Long-Term Care Insurance - Refer to Notes 1 and 4 to the consolidated financial statements

Critical Audit Matter Description

The Company's products include long-term care insurance. Liabilities for amounts payable under long-term care insurance are recorded in future policy benefits in the Company's consolidated balance sheets. Such liabilities are established based on actuarial assumptions at the time policies are issued, which are intended to estimate the experience for the period the policy benefits are payable. Significant adverse changes in experience on such contracts may require the establishment of premium deficiency reserves, which are based on current assumptions. Management's estimate of future policy benefits for long-term care insurance was $12.5 billion as of December 31, 2019.

Management applies considerable judgment in evaluating actual experience to determine whether a change in assumptions for long-term care insurance is warranted. Principal assumptions used in the valuation of future policy benefits for long-term care insurance include morbidity, policy lapse, investment returns, and mortality.

Given the inherent uncertainty in selecting assumptions, we have determined that management's evaluation of actual experience when estimating future policy benefits for long-term care insurance policies is a critical audit matter, which required a high degree of auditor judgment and an increased extent of effort when performing audit procedures to evaluate the judgments made and the reasonableness of the assumptions used in the valuation. The audit effort included the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained from these procedures.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the assumptions used to determine the estimate of future policy benefits for long-term care insurance, included, among others, the following:

- We tested the effectiveness of controls over the assumptions, including controls over the underlying data, used in the valuation of future policy benefits.
- With the involvement of our actuarial specialists, we:
    - evaluated judgments applied by management in setting principal assumptions, including evaluating management's controls over and the results of experience studies used as the basis for setting those assumptions.
    - evaluated management's estimate of, or developed an independent estimate of future policy benefits, on a sample basis, and evaluated differences. This included confirming that assumptions were applied as intended.
    - evaluated the results of the Company's annual premium deficiency tests.

Valuation of Embedded Derivative Liabilities — Refer to Notes 1, 4, 9, and 10 to the consolidated financial statements

Critical Audit Matter Description

The Company's products include variable annuity contracts with guaranteed minimum benefits that provide the policyholder a minimum return based on their initial deposit adjusted for withdrawals. The guarantees on variable annuity contracts are accounted for as insurance liabilities or as embedded derivatives depending on how and when the benefit is paid. Guarantees accounted for as embedded derivatives are recorded in policyholder account balances on the Company's consolidated balance sheet. Embedded derivatives are measured at estimated fair value separately from the host variable annuity contract using actuarial and capital market assumptions that are updated annually. Management's estimate of embedded derivative liabilities was $802 million as of December 31, 2019.

Management applies considerable judgment in selecting assumptions used to estimate embedded derivative liabilities and changes in market conditions or variations in certain assumptions could result in significant fluctuations in the estimate. Principal assumptions include mortality, lapse, withdrawal, utilization, and risk-free rates and implied volatilities. The valuation of embedded derivative liabilities is also based on complex calculations which are data intensive.

Given the inherent uncertainty in selecting assumptions and the complexity of the calculations, we have determined that management's valuation of embedded derivative liabilities is a critical audit matter which required a high degree of auditor judgment and an increased extent of effort when performing audit procedures to evaluate the judgments made and the reasonableness of the models and assumptions used in the valuation. The audit effort included the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained from these procedures.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the valuation of embedded derivative liabilities included, among others, the following:

- We tested the effectiveness of controls over the assumptions, including controls over the underlying data used in the valuation of embedded derivative liabilities.
- We tested the effectiveness of controls over the methodologies and models used for determining embedded derivative liabilities.
- With the involvement of our valuation, modeling and actuarial specialists, we:
    - evaluated the methods, models, and judgments applied by management in the determination of principal assumptions and the calculation of embedded derivative liabilities.
    - evaluated the results of underlying experience studies, capital market projections, and judgments applied by management in setting the assumptions.
    - developed an independent estimate of embedded derivative liabilities, on a sample basis, and evaluated differences.

/s/ DELOITTE & TOUCHE LLP
New York, New York
February 20, 2020

We have served as the Company’s auditor since at least 1968; however, an earlier year could not be reliably determined.

MetLife, Inc.

Consolidated Balance Sheets
December 31, 2019 and 2018

(In millions, except share and per share data)

	2019	2018
Assets		
Investments:		
Fixed maturity securities available-for-sale, at estimated fair value (amortized cost: $297,655 and $286,816, respectively)	$ 327,820	$ 298,265
Equity securities, at estimated fair value	1,342	1,440
Contractholder-directed equity securities and fair value option securities, at estimated fair value (includes $3 and $4, respectively, relating to variable interest entities)	13,102	12,616
Mortgage loans (net of valuation allowances of $353 and $342, respectively; includes $188 and $299, respectively, under the fair value option and $59 and $0, respectively, of mortgage loans held-for-sale)	80,529	75,752
Policy loans	9,680	9,699
Real estate and real estate joint ventures (includes $127 and $0, respectively, under the fair value option)	10,741	9,698
Other limited partnership interests	7,716	6,613
Short-term investments, principally at estimated fair value	3,850	3,937
Other invested assets (includes $2,299 and $2,300, respectively, of leveraged and direct financing leases and $290 and $141, respectively, relating to variable interest entities)	19,015	18,190
Total investments	473,795	436,210
Cash and cash equivalents, principally at estimated fair value (includes $12 and $52, respectively, relating to variable interest entities)	16,598	15,821
Accrued investment income	3,523	3,582
Premiums, reinsurance and other receivables (includes $4 and $3, respectively, relating to variable interest entities)	20,443	19,644
Deferred policy acquisition costs and value of business acquired	17,833	18,895
Goodwill	9,308	9,422
Other assets (includes $2 and $2, respectively, relating to variable interest entities)	10,518	8,408
Separate account assets	188,445	175,556
Total assets	$ 740,463	$ 687,538
Liabilities and Equity		
Liabilities		
Future policy benefits	$ 194,909	$ 186,780
Policyholder account balances	192,627	183,693
Other policy-related balances	17,171	16,529
Policyholder dividends payable	681	677
Policyholder dividend obligation	2,020	428
Payables for collateral under securities loaned and other transactions	26,745	24,794
Short-term debt	235	268
Long-term debt (includes $5 and $5, respectively, at estimated fair value, relating to variable interest entities)	13,466	12,829
Collateral financing arrangement	993	1,060
Junior subordinated debt securities	3,150	3,147
Current income tax payable	363	441
Deferred income tax liability	9,097	5,414
Other liabilities (includes $1 and $1, respectively, relating to variable interest entities)	24,179	22,964
Separate account liabilities	188,445	175,556
Total liabilities	674,081	634,580
Contingencies, Commitments and Guarantees (Note 21)		
Equity		
MetLife, Inc.'s stockholders' equity:		
Preferred stock, par value $0.01 per share; $3,405 aggregate liquidation preference	—	—
Common stock, par value $0.01 per share; 3,000,000,000 shares authorized; 1,177,680,299 and 1,171,824,242 shares issued, respectively; 915,338,098 and 958,613,542 shares outstanding, respectively	12	12
Additional paid-in capital	32,680	32,474
Retained earnings	33,078	28,926
Treasury stock, at cost; 262,342,201 and 213,210,700 shares, respectively	(12,678)	(10,393)
Accumulated other comprehensive income (loss)	13,052	1,722
Total MetLife, Inc.'s stockholders' equity	66,144	52,741
Noncontrolling interests	238	217
Total equity	66,382	52,958
Total liabilities and equity	$ 740,463	$ 687,538

See accompanying notes to the consolidated financial statements.

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MetLife, Inc.

Consolidated Statements of Operations
For the Years Ended December 31, 2019, 2018 and 2017

(In millions, except per share data)

	2019	2018	2017
Revenues			
Premiums	$ 42,235	$ 43,840	$ 38,992
Universal life and investment-type product policy fees	5,603	5,502	5,510
Net investment income	18,868	16,166	17,363
Other revenues	1,842	1,880	1,341
Net investment gains (losses):			
Other-than-temporary impairments on fixed maturity securities available-for-sale	(130)	(40)	(11)
Other-than-temporary impairments on fixed maturity securities available-for-sale transferred to other comprehensive income (loss)	—	—	1
Other net investment gains (losses)	574	(258)	(298)
Total net investment gains (losses)	444	(298)	(308)
Net derivative gains (losses)	628	851	(590)
Total revenues	69,620	67,941	62,308
Expenses			
Policyholder benefits and claims	41,461	42,656	38,313
Interest credited to policyholder account balances	6,464	4,013	5,607
Policyholder dividends	1,211	1,251	1,231
Other expenses	13,689	13,714	13,621
Total expenses	62,825	61,634	58,772
Income (loss) from continuing operations before provision for income tax	6,795	6,307	3,536
Provision for income tax expense (benefit)	886	1,179	(1,470)
Income (loss) from continuing operations, net of income tax	5,909	5,128	5,006
Income (loss) from discontinued operations, net of income tax	—	—	(986)
Net income (loss)	5,909	5,128	4,020
Less: Net income (loss) attributable to noncontrolling interests	10	5	10
Net income (loss) attributable to MetLife, Inc.	5,899	5,123	4,010
Less: Preferred stock dividends	178	141	103
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 5,721	$ 4,982	$ 3,907
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders per common share:			
Basic	$ 6.10	$ 4.95	$ 4.57
Diluted	$ 6.06	$ 4.91	$ 4.53
Net income (loss) available to MetLife, Inc.'s common shareholders per common share:			
Basic	$ 6.10	$ 4.95	$ 3.65
Diluted	$ 6.06	$ 4.91	$ 3.62

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Comprehensive Income (Loss)
For the Years Ended December 31, 2019, 2018 and 2017

(In millions)

	2019	2018	2017
Net income (loss)	$ 5,909	$ 5,128	$ 4,020
Other comprehensive income (loss):			
Unrealized investment gains (losses), net of related offsets	14,591	(8,719)	4,623
Unrealized gains (losses) on derivatives	60	674	(1,165)
Foreign currency translation adjustments	(42)	(587)	767
Defined benefit plans adjustment	30	263	144
Other comprehensive income (loss), before income tax	14,639	(8,369)	4,369
Income tax (expense) benefit related to items of other comprehensive income (loss)	(3,324)	1,754	(984)
Other comprehensive income (loss), net of income tax	11,315	(6,615)	3,385
Comprehensive income (loss)	17,224	(1,487)	7,405
Less: Comprehensive income (loss) attributable to noncontrolling interest, net of income tax	16	7	14
Comprehensive income (loss) attributable to MetLife, Inc.	$ 17,208	$ (1,494)	$ 7,391

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Equity
For the Years Ended December 31, 2019, 2018 and 2017

(In millions)

	Preferred Stock	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock at Cost	Accumulated Other Comprehensive Income (Loss)	Total MetLife, Inc.'s Stockholders' Equity	Noncontrolling Interests	Total Equity
Balance at December 31, 2016	$ —	$ 12	$ 30,944	$ 34,683	$ (3,474)	$ 5,366	$ 67,531	$ 171	$ 67,702
Treasury stock acquired in connection with share repurchases					(2,927)		(2,927)		(2,927)
Stock-based compensation			167				167		167
Dividends on preferred stock				(103)			(103)		(103)
Dividends on common stock				(1,717)			(1,717)		(1,717)
Distribution of Brighthouse, net of income tax (Note 3)				(10,346)		(1,320)	(11,666)		(11,666)
Change in equity of noncontrolling interests							—	9	9
Net income (loss)				4,010			4,010	10	4,020
Other comprehensive income (loss), net of income tax						3,381	3,381	4	3,385
Balance at December 31, 2017	—	12	31,111	26,527	(6,401)	7,427	58,676	194	58,870
Cumulative effects of changes in accounting principles, net of income tax				(905)		912	7		7
Balance at January 1, 2018	—	12	31,111	25,622	(6,401)	8,339	58,683	194	58,877
Preferred stock issuance			1,274				1,274		1,274
Treasury stock acquired in connection with share repurchases					(3,992)		(3,992)		(3,992)
Stock-based compensation			89				89		89
Dividends on preferred stock				(141)			(141)		(141)
Dividends on common stock				(1,678)			(1,678)		(1,678)
Change in equity of noncontrolling interests							—	16	16
Net income (loss)				5,123			5,123	5	5,128
Other comprehensive income (loss), net of income tax						(6,617)	(6,617)	2	(6,615)
Balance at December 31, 2018	—	12	32,474	28,926	(10,393)	1,722	52,741	217	52,958
Cumulative effects of changes in accounting principles, net of income tax (Note 1)				74		21	95		95
Balance at January 1, 2019	—	12	32,474	29,000	(10,393)	1,743	52,836	217	53,053
Treasury stock acquired in connection with share repurchases					(2,285)		(2,285)		(2,285)
Stock-based compensation			206				206		206
Dividends on preferred stock				(178)			(178)		(178)
Dividends on common stock				(1,643)			(1,643)		(1,643)
Change in equity of noncontrolling interests							—	5	5
Net income (loss)				5,899			5,899	10	5,909
Other comprehensive income (loss), net of income tax						11,309	11,309	6	11,315
Balance at December 31, 2019	$ —	$ 12	$ 32,680	$ 33,078	$ (12,678)	$ 13,052	$ 66,144	$ 238	$ 66,382

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Cash Flows
For the Years Ended December 31, 2019, 2018 and 2017

(In millions)

	2019	2018	2017
Cash flows from operating activities			
Net income (loss)	$ 5,909	$ 5,128	$ 4,020
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization expenses	630	628	795
Amortization of premiums and accretion of discounts associated with investments, net	(999)	(1,013)	(1,044)
(Gains) losses on investments and from sales of businesses, net	(444)	298	363
(Gains) losses on derivatives, net	(135)	(207)	3,610
(Income) loss from equity method investments, net of dividends or distributions	254	251	194
Interest credited to policyholder account balances	6,464	4,013	6,260
Universal life and investment-type product policy fees	(5,603)	(5,502)	(7,708)
Change in contractholder-directed equity securities and fair value option securities	(139)	2,212	(436)
Change in accrued investment income	8	(121)	(280)
Change in premiums, reinsurance and other receivables	(514)	(1,809)	(991)
Change in deferred policy acquisition costs and value of business acquired, net	(463)	(249)	(693)
Change in income tax	233	940	(2,796)
Change in other assets	426	260	691
Change in insurance-related liabilities and policy-related balances	7,803	7,454	8,511
Change in other liabilities	71	(483)	1,603
Other, net	285	(62)	184
Net cash provided by (used in) operating activities	13,786	11,738	12,283
Cash flows from investing activities			
Sales, maturities and repayments of:			
Fixed maturity securities available-for-sale	77,820	106,677	95,945
Equity securities	294	342	1,433
Mortgage loans	12,838	9,918	10,353
Real estate and real estate joint ventures	1,123	1,227	972
Other limited partnership interests	625	675	1,082
Purchases and originations of:			
Fixed maturity securities available-for-sale	(87,455)	(105,401)	(105,683)
Equity securities	(130)	(235)	(920)
Mortgage loans	(17,657)	(17,059)	(14,374)
Real estate and real estate joint ventures	(1,962)	(1,118)	(1,446)
Other limited partnership interests	(1,674)	(1,406)	(1,486)
Cash received in connection with freestanding derivatives	2,914	3,778	5,315
Cash paid in connection with freestanding derivatives	(3,749)	(4,173)	(8,696)
Cash disposed due to distribution of Brighthouse	—	—	(663)
Purchases of businesses	(32)	—	(211)
Net change in policy loans	5	(37)	(67)
Net change in short-term investments	152	870	2,087
Net change in other invested assets	(567)	340	(171)
Other, net	(131)	(32)	(346)
Net cash provided by (used in) investing activities	$ (17,586)	$ (5,634)	$ (16,876)

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Consolidated Statements of Cash Flows — (continued)
For the Years Ended December 31, 2019, 2018 and 2017

(In millions)

	2019	2018	2017
Cash flows from financing activities			
Policyholder account balances:			
Deposits	$ 92,122	$ 92,327	$ 88,511
Withdrawals	(85,598)	(88,061)	(82,380)
Payables for collateral under securities loaned and other transactions:			
Net change in payables for collateral under securities loaned and other transactions	2,019	(821)	903
Cash received for other transactions with tenors greater than three months	125	200	—
Cash paid for other transactions with tenors greater than three months	(200)	—	—
Long-term debt issued	1,382	24	3,657
Long-term debt repaid	(906)	(1,871)	(1,073)
Collateral financing arrangements repaid	(67)	(61)	(2,951)
Distribution of Brighthouse	—	—	(2,793)
Financing element on certain derivative instruments and other derivative related transactions, net	(126)	144	(151)
Treasury stock acquired in connection with share repurchases	(2,285)	(3,992)	(2,927)
Preferred stock issued, net of issuance costs	—	1,274	—
Dividends on preferred stock	(178)	(141)	(103)
Dividends on common stock	(1,643)	(1,678)	(1,717)
Other, net	(77)	(145)	118
Net cash provided by (used in) financing activities	4,568	(2,801)	(906)
Effect of change in foreign currency exchange rates on cash and cash equivalents balances	9	(183)	323
Change in cash and cash equivalents	777	3,120	(5,176)
Cash and cash equivalents, beginning of year	15,821	12,701	17,877
Cash and cash equivalents, end of year	$ 16,598	$ 15,821	$ 12,701
Cash and cash equivalents, of disposed subsidiary, beginning of year	$ —	$ —	$ 5,226
Cash and cash equivalents, of disposed subsidiary, end of year	$ —	$ —	$ —
Cash and cash equivalents, from continuing operations, beginning of year	$ 15,821	$ 12,701	$ 12,651
Cash and cash equivalents, from continuing operations, end of year	$ 16,598	$ 15,821	$ 12,701
Supplemental disclosures of cash flow information			
Net cash paid (received) for:			
Interest	$ 964	$ 1,130	$ 1,118
Income tax	$ 1,099	$ 1,935	$ 1,530
Non-cash transactions			
Fixed maturity securities available-for-sale received in connection with pension risk transfer transactions	$ 637	$ 3,016	$ —
Operating lease liability associated with the recognition of right-of-use assets	$ 341	$ —	$ —
Brighthouse common stock exchange transaction (Note 3):			
Reduction of long-term debt	$ —	$ 944	$ —
Reduction of fair value option securities	$ —	$ 1,030	$ —
Reclassification of certain equity securities to other invested assets	$ —	$ 792	$ —
Disposal of Brighthouse (Note 3):			
Assets disposed	$ —	$ —	$ 225,502
Liabilities disposed	—	—	(210,999)
Net assets disposed	—	—	14,503
Cash disposed	—	—	(3,456)
Net non-cash disposed	$ —	$ —	$ 11,047

See accompanying notes to the consolidated financial statements.

MetLife, Inc.

Notes to the Consolidated Financial Statements

1. Business, Basis of Presentation and Summary of Significant Accounting Policies

Business

"MetLife" and the "Company" refer to MetLife, Inc., a Delaware corporation incorporated in 1999, its subsidiaries and affiliates. MetLife is one of the world's leading financial services companies, providing insurance, annuities, employee benefits and asset management. MetLife is organized into five segments: U.S.; Asia; Latin America; Europe, the Middle East and Africa ("EMEA"); and MetLife Holdings.

Basis of Presentation

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to adopt accounting policies and make estimates and assumptions that affect amounts reported on the consolidated financial statements. In applying these policies and estimates, management makes subjective and complex judgments that frequently require assumptions about matters that are inherently uncertain. Many of these policies, estimates and related judgments are common in the insurance and financial services industries; others are specific to the Company's business and operations. Actual results could differ from these estimates.

Consolidation

The accompanying consolidated financial statements include the accounts of MetLife, Inc. and its subsidiaries, as well as partnerships and joint ventures in which the Company has control, and variable interest entities ("VIEs") for which the Company is the primary beneficiary. Intercompany accounts and transactions have been eliminated.

Discontinued Operations

The results of operations of a component of the Company that has either been disposed of or is classified as held-for-sale are reported in discontinued operations if certain criteria are met. A disposal of a component is reported in discontinued operations if the disposal represents a strategic shift that has or will have a major effect on the Company's operations and financial results.

On August 4, 2017, MetLife, Inc. completed the separation of Brighthouse Financial, Inc. and its subsidiaries ("Brighthouse") through a distribution of 96,776,670 shares of Brighthouse Financial, Inc. common stock to the MetLife, Inc. common shareholders (the "Separation"). The results of Brighthouse are reflected in MetLife, Inc.'s consolidated financial statements as discontinued operations and, therefore, are presented as income (loss) from discontinued operations on the consolidated statements of operations. Intercompany transactions between the Company and Brighthouse prior to the Separation have been eliminated. Transactions between the Company and Brighthouse after the Separation are reflected in continuing operations for the Company. See Note 3 for information on discontinued operations and transactions with Brighthouse.

Separate Accounts

Separate accounts are established in conformity with insurance laws. Generally, the assets of the separate accounts cannot be used to settle the liabilities that arise from any other business of the Company. Separate account assets are subject to general account claims only to the extent the value of such assets exceeds the separate account liabilities. The Company reports separately, as assets and liabilities, investments held in separate accounts and liabilities of the separate accounts if:

- such separate accounts are legally recognized;
- assets supporting the contract liabilities are legally insulated from the Company's general account liabilities;
- investment objectives are directed by the contractholder; and
- all investment performance, net of contract fees and assessments, is passed through to the contractholder.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

The Company reports separate account assets at their fair value which is based on the estimated fair values of the underlying assets comprising the individual separate account portfolios. Investment performance (including investment income, net investment gains (losses) and changes in unrealized gains (losses)) and the corresponding amounts credited to contractholders of such separate accounts are offset within the same line on the statements of operations. Separate accounts credited with a contractual investment return are combined on a line-by-line basis with the Company's general account assets, liabilities, revenues and expenses and the accounting for these investments is consistent with the methodologies described herein for similar financial instruments held within the general account. Unit-linked separate account investments that are directed by contractholders but do not meet one or more of the other above criteria are included in fair value option ("FVO") securities ("FVO Securities").

The Company's revenues reflect fees charged to the separate accounts, including mortality charges, risk charges, policy administration fees, investment management fees and surrender charges. Such fees are included in universal life and investment-type product policy fees on the statements of operations.

Reclassifications

Certain amounts in the prior years' consolidated financial statements and related footnotes thereto have been reclassified to conform to the current year presentation as discussed throughout the Notes to the Consolidated Financial Statements.

Summary of Significant Accounting Policies

The following are the Company's significant accounting policies with references to notes providing additional information on such policies and critical accounting estimates relating to such policies.

Accounting Policy	Note
Insurance	4
Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles	5
Reinsurance	6
Investments	8
Derivatives	9
Fair Value	10
Goodwill	12
Employee Benefit Plans	18
Income Tax	19
Litigation Contingencies	21

Insurance

Future Policy Benefit Liabilities and Policyholder Account Balances

The Company establishes liabilities for amounts payable under insurance policies. Generally, amounts are payable over an extended period of time and related liabilities are calculated as the present value of future expected benefits to be paid, reduced by the present value of future expected premiums. Such liabilities are established based on methods and underlying assumptions in accordance with GAAP and applicable actuarial standards. Principal assumptions used in the establishment of liabilities for future policy benefits are mortality, morbidity, policy lapse, renewal, retirement, disability incidence, disability terminations, investment returns, inflation, expenses and other contingent events as appropriate to the respective product type and geographical area. These assumptions are established at the time the policy is issued and are intended to estimate the experience for the period the policy benefits are payable. Utilizing these assumptions, liabilities are established on a block of business basis. For long duration insurance contracts, assumptions such as mortality, morbidity and interest rates are "locked in" upon the issuance of new business. However, significant adverse changes in experience on such contracts may require the establishment of premium deficiency reserves. Such reserves are determined based on the then current assumptions and do not include a provision for adverse deviation.

Premium deficiency reserves may also be established for short-duration contracts to provide for expected future losses. These reserves are based on actuarial estimates of the amount of loss inherent in that period, including losses incurred for which claims have not been reported. The provisions for unreported claims are calculated using studies that measure the historical length of time between the incurred date of a claim and its eventual reporting to the Company. Anticipated investment income is considered in the calculation of premium deficiency losses for short-duration contracts.

Liabilities for universal and variable life policies with secondary guarantees ("ULSG") and paid-up guarantees are determined by estimating the expected value of death benefits payable when the account balance is projected to be zero and recognizing those benefits ratably over the life of the contract based on total expected assessments. The assumptions used in estimating the secondary and paid-up guarantee liabilities are consistent with those used for amortizing deferred policy acquisition costs ("DAC"), and are thus subject to the same variability and risk as further discussed herein. The assumptions of investment performance and volatility for variable products are consistent with historical experience of appropriate underlying equity indices, such as the S&P Global Ratings ("S&P") 500 Index. The benefits used in calculating the liabilities are based on the average benefits payable over a range of scenarios.

The Company regularly reviews its estimates of liabilities for future policy benefits and compares them with its actual experience. Differences result in changes to the liability balances with related charges or credits to benefit expenses in the period in which the changes occur.

Policyholder account balances relate to contracts or contract features where the Company has no significant insurance risk.

The Company issues directly and assumes through reinsurance variable annuity products with guaranteed minimum benefits that provide the policyholder a minimum return based on their initial deposit adjusted for withdrawals. These guarantees are accounted for as insurance liabilities or as embedded derivatives depending on how and when the benefit is paid. Specifically, a guarantee is accounted for as an embedded derivative if a guarantee is paid without requiring (i) the occurrence of a specific insurable event, or (ii) the policyholder to annuitize. Alternatively, a guarantee is accounted for as an insurance liability if the guarantee is paid only upon either (i) the occurrence of a specific insurable event, or (ii) annuitization. In certain cases, a guarantee may have elements of both an insurance liability and an embedded derivative and in such cases the guarantee is split and accounted for under both models.

Guarantees accounted for as insurance liabilities in future policy benefits include guaranteed minimum death benefits ("GMDBs"), the life-contingent portion of guaranteed minimum withdrawal benefits ("GMWBs"), elective annuitizations of guaranteed minimum income benefits ("GMIBs"), and the life contingent portion of GMIBs that require annuitization when the account balance goes to zero.

Guarantees accounted for as embedded derivatives in policyholder account balances include guaranteed minimum accumulation benefits ("GMABs"), the non-life contingent portion of GMWBs and certain non-life contingent portions of GMIBs. At inception, the Company attributes to the embedded derivative a portion of the projected future guarantee fees to be collected from the policyholder equal to the present value of projected future guaranteed benefits. Any additional fees represent "excess" fees and are reported in universal life and investment-type product policy fees.

Other Policy-Related Balances

Other policy-related balances include policy and contract claims, premiums received in advance, unearned revenue liabilities, obligations assumed under structured settlement assignments, policyholder dividends due and unpaid, policyholder dividends left on deposit and negative value of business acquired ("VOBA").

The liability for policy and contract claims generally relates to incurred but not reported ("IBNR") death, disability, and dental claims. In addition, included in other policy-related balances are claims which have been reported but not yet settled for death, disability and dental. The liability for these claims is based on the Company's estimated ultimate cost of settling all claims. The Company derives estimates for the development of IBNR claims principally from analyses of historical patterns of claims by business line. The methods used to determine these estimates are continually reviewed. Adjustments resulting from this continuous review process and differences between estimates and payments for claims are recognized in policyholder benefits and claims expense in the period in which the estimates are changed or payments are made.

The Company accounts for the prepayment of premiums on its individual life, group life and health contracts as premiums received in advance and applies the cash received to premiums when due.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

The unearned revenue liability relates to universal life and investment-type products and represents policy charges for services to be provided in future periods. The charges are deferred as unearned revenue and amortized using the product's estimated gross profits and margins, similar to DAC as discussed further herein. Such amortization is recorded in universal life and investment-type product policy fees.

See Note 3 for additional information on obligations assumed under structured settlement assignments.

See "— Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles" for a discussion of negative VOBA.

Recognition of Insurance Revenues and Deposits

Premiums related to traditional life, annuity contracts with life contingencies, long-duration accident & health, and credit insurance policies are recognized as revenues when due from policyholders. Policyholder benefits and expenses are provided to recognize profits over the estimated lives of the insurance policies. When premiums are due over a significantly shorter period than the period over which benefits are provided, any excess profit is deferred and recognized into earnings in a constant relationship to insurance in-force or, for annuities, the amount of expected future policy benefit payments.

Premiums related to short-duration non-medical health and disability, accident & health, and certain credit insurance contracts are recognized on a pro rata basis over the applicable contract term.

Deposits related to universal life and investment-type products are credited to policyholder account balances. Revenues from such contracts consist of fees for mortality, policy administration and surrender charges and are recorded in universal life and investment-type product policy fees in the period in which services are provided. Amounts that are charged to earnings include interest credited and benefit claims incurred in excess of related policyholder account balances.

Premiums related to property & casualty contracts are recognized as revenue on a pro rata basis over the applicable contract term. Unearned premiums, representing the portion of premium written related to the unexpired coverage, are also included in future policy benefits.

All revenues and expenses are presented net of reinsurance, as applicable.

Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles

The Company incurs significant costs in connection with acquiring new and renewal insurance business. Costs that are related directly to the successful acquisition or renewal of insurance contracts are capitalized as DAC. Such costs include:

- incremental direct costs of contract acquisition, such as commissions;
- the portion of an employee's total compensation and benefits related to time spent selling, underwriting or processing the issuance of new and renewal insurance business only with respect to actual policies acquired or renewed;
- other essential direct costs that would not have been incurred had a policy not been acquired or renewed; and
- the costs of direct-response advertising, the primary purpose of which is to elicit sales to customers who could be shown to have responded specifically to the advertising and that results in probable future benefits.

All other acquisition-related costs, including those related to general advertising and solicitation, market research, agent training, product development, unsuccessful sales and underwriting efforts, as well as all indirect costs, are expensed as incurred.

VOBA is an intangible asset resulting from a business combination that represents the excess of book value over the estimated fair value of acquired insurance, annuity, and investment-type contracts in-force at the acquisition date. The estimated fair value of the acquired liabilities is based on projections, by each block of business, of future policy and contract charges, premiums, mortality and morbidity, separate account performance, surrenders, operating expenses, investment returns, nonperformance risk adjustment and other factors. Actual experience with the purchased business may vary from these projections.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

DAC and VOBA are amortized as follows:

Products:	In proportion to the following over estimated lives of the contracts:
• Nonparticipating and non-dividend-paying traditional contracts: • Term insurance • Nonparticipating whole life insurance • Traditional group life insurance • Non-medical health insurance • Accident & health insurance	Actual and expected future gross premiums.
• Participating, dividend-paying traditional contracts	Actual and expected future gross margins.
• Fixed and variable universal life contracts • Fixed and variable deferred annuity contracts	Actual and expected future gross profits.
• Credit insurance contracts • Property & casualty insurance contracts • Other short-duration contracts	Actual and future earned premiums.

See Note 5 for additional information on DAC and VOBA amortization. Amortization of DAC and VOBA is included in other expenses.

The recovery of DAC and VOBA is dependent upon the future profitability of the related business. DAC and VOBA are aggregated on the financial statements for reporting purposes.

The Company generally has two different types of sales inducements which are included in other assets: (i) the policyholder receives a bonus whereby the policyholder's initial account balance is increased by an amount equal to a specified percentage of the customer's deposit; and (ii) the policyholder receives a higher interest rate using a dollar cost averaging method than would have been received based on the normal general account interest rate credited. The Company defers sales inducements and amortizes them over the life of the policy using the same methodology and assumptions used to amortize DAC. The amortization of sales inducements is included in policyholder benefits and claims. Each year, or more frequently if circumstances indicate a potential recoverability issue exists, the Company reviews deferred sales inducements ("DSI") to determine the recoverability of the asset.

Value of distribution agreements acquired ("VODA") is reported in other assets and represents the present value of expected future profits associated with the expected future business derived from the distribution agreements acquired as part of a business combination. Value of customer relationships acquired ("VOCRA") is also reported in other assets and represents the present value of the expected future profits associated with the expected future business acquired through existing customers of the acquired company or business. The VODA and VOCRA associated with past business combinations are amortized over useful lives ranging from 10 to 40 years and such amortization is included in other expenses. Each year, or more frequently if circumstances indicate a possible impairment exists, the Company reviews VODA and VOCRA to determine whether the asset is impaired.

For certain acquired blocks of business, the estimated fair value of the in-force contract obligations exceeded the book value of assumed in-force insurance policy liabilities, resulting in negative VOBA, which is presented separately from VOBA as an additional insurance liability. The fair value of the in-force contract obligations is based on projections by each block of business. Negative VOBA is amortized over the policy period in proportion to the approximate consumption of losses included in the liability usually expressed in terms of insurance in-force or account value. Such amortization is recorded as an offset in other expenses.

Reinsurance

For each of its reinsurance agreements, the Company determines whether the agreement provides indemnification against loss or liability relating to insurance risk in accordance with applicable accounting standards. Cessions under reinsurance agreements do not discharge the Company's obligations as the primary insurer. The Company reviews all contractual features, including those that may limit the amount of insurance risk to which the reinsurer is subject or features that delay the timely reimbursement of claims.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

For reinsurance of existing in-force blocks of long-duration contracts that transfer significant insurance risk, the difference, if any, between the amounts paid (received), and the liabilities ceded (assumed) related to the underlying contracts is considered the net cost of reinsurance at the inception of the reinsurance agreement. The net cost of reinsurance is recorded as an adjustment to DAC when there is a gain at inception on the ceding entity, and to other liabilities when there is a loss at inception. The net cost of reinsurance is recognized as a component of other expenses when there is a gain at inception, and as policyholder benefits and claims when there is a loss at inception and is subsequently amortized on a basis consistent with the methodology used for amortizing DAC related to the underlying reinsured contracts. Subsequent amounts paid (received) on the reinsurance of in-force blocks, as well as amounts paid (received) related to new business, are recorded as ceded (assumed) premiums; and ceded (assumed) premiums, reinsurance and other receivables (future policy benefits) are established.

For prospective reinsurance of short-duration contracts that meet the criteria for reinsurance accounting, amounts paid (received) are recorded as ceded (assumed) premiums and ceded (assumed) unearned premiums. Unearned premiums are reflected as a component of premiums, reinsurance and other receivables (future policy benefits). Such amounts are amortized through earned premiums over the remaining contract period in proportion to the amount of insurance protection provided. For retroactive reinsurance of short-duration contracts that meet the criteria for reinsurance accounting, amounts paid (received) in excess of the related insurance liabilities ceded (assumed) are recognized immediately as a loss and are reported in the appropriate line item within the statement of operations. Any gain on such retroactive agreement is deferred and is amortized as part of DAC, primarily using the recovery method.

Amounts currently recoverable under reinsurance agreements are included in premiums, reinsurance and other receivables and amounts currently payable are included in other liabilities. Assets and liabilities relating to reinsurance agreements with the same reinsurer may be recorded net on the balance sheet, if a right of offset exists within the reinsurance agreement. In the event that reinsurers do not meet their obligations to the Company under the terms of the reinsurance agreements, reinsurance recoverable balances could become uncollectible. In such instances, reinsurance recoverable balances are stated net of allowances for uncollectible reinsurance.

Premiums, fees and policyholder benefits and claims include amounts assumed under reinsurance agreements and are net of reinsurance ceded. Amounts received from reinsurers for policy administration are reported in other revenues.

If the Company determines that a reinsurance agreement does not expose the reinsurer to a reasonable possibility of a significant loss from insurance risk, the Company records the agreement using the deposit method of accounting. Deposits received are included in other liabilities and deposits made are included within premiums, reinsurance and other receivables. As amounts are paid or received, consistent with the underlying contracts, the deposit assets or liabilities are adjusted. Interest on such deposits is recorded as other revenues or other expenses, as appropriate. Periodically, the Company evaluates the adequacy of the expected payments or recoveries and adjusts the deposit asset or liability through other revenues or other expenses, as appropriate.

Investments

Net Investment Income and Net Investment Gains (Losses)

Income from investments is reported within net investment income, unless otherwise stated herein. Gains and losses on sales of investments, impairment losses and changes in valuation allowances are reported within net investment gains (losses), unless otherwise stated herein.

Fixed Maturity Securities

The majority of the Company's fixed maturity securities are classified as available-for-sale ("AFS") and are reported at their estimated fair value. Unrealized investment gains and losses on these securities are recorded as a separate component of other comprehensive income (loss) ("OCI"), net of policy-related amounts and deferred income taxes. All security transactions are recorded on a trade date basis. Sales of securities are determined on a specific identification basis.

Interest income and prepayment fees are recognized when earned. Interest income is recognized using an effective yield method giving effect to amortization of premium and accretion of discount, and is based on the estimated economic life of the securities, which for mortgage-backed and asset-backed securities considers the estimated timing and amount of prepayments of the underlying loans. See Note 8 "— Fixed Maturity Securities AFS — Methodology for Amortization of Premium and Accretion of Discount on Structured Products." The amortization of premium and accretion of discount also takes into consideration call and maturity dates.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

The Company periodically evaluates these securities for impairment. The assessment of whether impairments have occurred is based on management's case-by-case evaluation of the underlying reasons for the decline in estimated fair value, as well as an analysis of the gross unrealized losses by severity and/or age as described in Note 8 "— Fixed Maturity Securities AFS — Evaluation of Fixed Maturity Securities AFS for OTTI and Evaluating Temporarily Impaired Fixed Maturity Securities AFS."

For securities in an unrealized loss position, an other-than-temporary impairment ("OTTI") is recognized in earnings within net investment gains (losses) when it is anticipated that the amortized cost will not be recovered. When either: (i) the Company has the intent to sell the security; or (ii) it is more likely than not that the Company will be required to sell the security before recovery, the OTTI recognized in earnings is the entire difference between the security's amortized cost and estimated fair value. If neither of these conditions exists, the difference between the amortized cost of the security and the present value of projected future cash flows expected to be collected is recognized as an OTTI in earnings ("credit loss"). If the estimated fair value is less than the present value of projected future cash flows expected to be collected, this portion of OTTI related to other-than-credit factors ("noncredit loss") is recorded in OCI.

Equity Securities

Equity securities are reported at their estimated fair value, with changes in estimated fair value included in net investment gains (losses). Sales of securities are determined on a specific identification basis. Dividends are recognized in net investment income when declared.

Contractholder-Directed Equity Securities and FVO Securities

Contractholder-directed equity securities and FVO Securities (collectively, "Unit-linked and FVO Securities") are investments for which the FVO has been elected, or are otherwise required to be carried at estimated fair value, and include:

- contractholder-directed investments supporting unit-linked variable annuity type liabilities ("Unit-linked investments") which do not qualify for presentation and reporting as separate account summary total assets and liabilities. These investments are primarily equity securities (including mutual funds) and, to a lesser extent, fixed maturity securities, short-term investments and cash and cash equivalents. The investment returns on these investments inure to contractholders and are offset by a corresponding change in policyholder account balances through interest credited to policyholder account balances;
- fixed maturity and equity securities held-for-investment by the general account to support asset and liability management strategies for certain insurance products and investments in certain separate accounts; and
- securities held by consolidated securitization entities ("CSEs").

Mortgage Loans

The Company disaggregates its mortgage loan investments into three portfolio segments: commercial, agricultural and residential. The accounting policies that are applicable to all portfolio segments are presented below and the accounting policies related to each of the portfolio segments are included in Note 8.

Mortgage loans held-for-investment are stated at unpaid principal balance, adjusted for any unamortized premium or discount, deferred fees or expenses, and are net of valuation allowances. Interest income and prepayment fees are recognized when earned. Interest income is recognized using an effective yield method giving effect to amortization of premium and accretion of discount.

Also included in mortgage loans held-for-investment are residential mortgage loans for which the FVO was elected, and which are stated at estimated fair value. Changes in estimated fair value are recognized in net investment income.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Mortgage loans held-for-sale that were previously designated as held-for-investment, but now are designated as held-for-sale and mortgage loans originated with the intent to sell for which FVO was not elected, are stated at the lower of amortized cost or estimated fair value.

Policy Loans

Policy loans are stated at unpaid principal balances. Interest income is recorded as earned using the contractual interest rate. Generally, accrued interest is capitalized on the policy's anniversary date. Valuation allowances are not established for policy loans, as they are fully collateralized by the cash surrender value of the underlying insurance policies. Any unpaid principal and accrued interest are deducted from the cash surrender value or the death benefit prior to settlement of the insurance policy.

Real Estate

Real estate held-for-investment is stated at cost less accumulated depreciation. Depreciation is recorded on a straight-line basis over the estimated useful life of the asset (typically 20 to 55 years). Rental income is recognized on a straight-line basis over the term of the respective leases. The Company periodically reviews its real estate held-for-investment for impairment and tests for recoverability whenever events or changes in circumstances indicate the carrying value may not be recoverable. Properties whose carrying values are greater than their undiscounted cash flows are written down to their estimated fair value, which is generally computed using the present value of expected future cash flows discounted at a rate commensurate with the underlying risks.

Real estate for which the Company commits to a plan to sell within one year and actively markets in its current condition for a reasonable price in comparison to its estimated fair value is classified as held-for-sale. Real estate held-for-sale is stated at the lower of depreciated cost or estimated fair value less expected disposition costs and is not depreciated.

Real Estate Joint Ventures and Other Limited Partnership Interests

The Company uses the equity method of accounting or the FVO for real estate joint ventures and other limited partnership interests ("investee") when it has more than a minor ownership interest or more than a minor influence over the investee's operations. The Company generally recognizes its share of the investee's earnings in net investment income on a three-month lag in instances where the investee's financial information is not sufficiently timely or when the investee's reporting period differs from the Company's reporting period.

The Company accounts for its interest in real estate joint ventures and other limited partnership interests in which it has virtually no influence over the investee's operations at estimated fair value. Changes in estimated fair value of these investments are included in net investment gains (losses). Because of the nature and structure of these investments, they do not meet the characteristics of an equity security in accordance with applicable accounting standards.

The Company routinely evaluates its equity method investments for impairment. For equity method investees, the Company considers financial and other information provided by the investee, other known information and inherent risks in the underlying investments, as well as future capital commitments, in determining whether an impairment has occurred.

Short-term Investments

Short-term investments include highly liquid securities and other investments with remaining maturities of one year or less, but greater than three months, at the time of purchase. Securities included within short-term investments are stated at estimated fair value, while other investments included within short-term investments are stated at amortized cost, which approximates estimated fair value.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Other Invested Assets

Other invested assets consist principally of the following:

- Freestanding derivatives with positive estimated fair values which are described in "— Derivatives" below.
- Tax credit and renewable energy partnerships which derive a significant source of investment return in the form of income tax credits or other tax incentives. Where tax credits are guaranteed by a creditworthy third party, the investment is accounted for under the effective yield method. Otherwise, the investment is accounted for under the equity method. See Note 19.
- Annuities funding structured settlement claims represent annuities funding claims assumed by the Company in its capacity as a structured settlements assignment company. The annuities are stated at their contract value, which represents the present value of the future periodic claim payments to be provided. The net investment income recognized reflects the amortization of discount of the annuity at its implied effective interest rate.
- Direct financing leases net investment is equal to the minimum lease payments plus the unguaranteed residual value, less the unearned income. Income is determined by applying the pre-tax internal rate of return to the investment balance. The Company regularly reviews lease receivables for impairment. Certain direct financing leases are linked to inflation.
- Leveraged leases net investment is equal to the minimum lease payments plus the unguaranteed residual value, less the unearned income, and is recorded net of non-recourse debt. Income is determined by applying the leveraged lease's estimated rate of return to the net investment in the lease in those periods in which the net investment at the beginning of the period is positive. Leveraged leases derive investment returns in part from their income tax treatment. The Company regularly reviews residual values for impairment.
- Investments in operating joint ventures that engage in insurance underwriting activities are accounted for under the equity method.
- Investments in Federal Home Loan Bank ("FHLB") common stock are carried at redemption value and are considered restricted investments until redeemed by the respective regional FHLBs.
- Funds withheld represent a receivable for amounts contractually withheld by ceding companies in accordance with reinsurance agreements. The Company recognizes interest on funds withheld at rates defined by the terms of the agreement which may be contractually specified or directly related to the underlying investments.

Securities Lending, Repurchase Agreements and FHLB of Boston Advance Agreements

The Company accounts for securities lending transactions and repurchase agreements as financing arrangements and the associated liability is recorded at the amount of cash received. Income and expenses associated with securities lending transactions and repurchase agreements are reported as investment income and investment expense, respectively, within net investment income. While the collateral management practices are unique to the FHLB of Boston short-term advance agreements program, these transactions are accounted for, have collateral maintenance requirements and have restrictions on securities pledged similar to securities lending transactions.

Securities Lending

The Company enters into securities lending transactions, whereby blocks of securities are loaned to third parties, primarily brokerage firms and commercial banks. The Company obtains collateral at the inception of the loan, usually cash, in an amount generally equal to 102% of the estimated fair value of the securities loaned, and maintains it at a level greater than or equal to 100% for the duration of the loan. Securities loaned under such transactions may be sold or re-pledged by the transferee. The Company is liable to return to the counterparties the cash collateral received. Security collateral on deposit from counterparties in connection with securities lending transactions may not be sold or re-pledged, unless the counterparty is in default, and is not reflected on the Company's consolidated financial statements. The Company monitors the ratio of the collateral held to the estimated fair value of the securities loaned on a daily basis and additional collateral is obtained as necessary throughout the duration of the loan.

Repurchase Agreements

The Company participates in short-term repurchase agreements with unaffiliated financial institutions. Under these agreements, the Company lends fixed maturity securities and receives cash as collateral in an amount generally equal to 85% to 100% of the estimated fair value of the securities loaned at the inception of the transaction. The Company monitors the ratio of the collateral held to the estimated fair value of the securities loaned throughout the duration of the transaction and additional collateral is obtained as necessary. Securities loaned under such transactions may be sold or re-pledged by the transferee.

FHLB of Boston Advance Agreements

A subsidiary of the Company has entered into short-term advance agreements with the FHLB of Boston. Under these advance agreements, the subsidiary pledges fixed maturity securities AFS as collateral and receives cash, which is segregated and reinvested, primarily into fixed maturity securities AFS and cash equivalents. Securities pledged as collateral may not be sold or re-pledged by the transferee.

Derivatives

Freestanding Derivatives

Freestanding derivatives are carried on the Company's balance sheet either as assets within other invested assets or as liabilities within other liabilities at estimated fair value. The Company does not offset the estimated fair value amounts recognized for derivatives executed with the same counterparty under the same master netting agreement.

Accruals on derivatives are generally recorded in accrued investment income or within other liabilities. However, accruals that are not scheduled to settle within one year are included with the derivative's carrying value in other invested assets or other liabilities.

If a derivative is not designated as an accounting hedge or its use in managing risk does not qualify for hedge accounting, changes in the estimated fair value of the derivative are reported in net derivative gains (losses) except as follows:

Statement of Operations Presentation:	Derivative:
Policyholder benefits and claims	• Economic hedges of variable annuity guarantees included in future policy benefits
Net investment income	• Economic hedges of equity method investments in joint ventures • Derivatives held within Unit-linked investments

Hedge Accounting

To qualify for hedge accounting, at the inception of the hedging relationship, the Company formally documents its risk management objective and strategy for undertaking the hedging transaction, as well as its designation of the hedge. Hedge designation and financial statement presentation of changes in estimated fair value of the hedging derivatives are as follows:

- Fair value hedge - a hedge of the estimated fair value of a recognized asset or liability - in the same line item as the earnings effect of the hedged item. The carrying value of the hedged recognized asset or liability is adjusted for changes in its estimated fair value due to the hedged risk.
- Cash flow hedge - a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to a recognized asset or liability - in OCI and reclassified into the statement of operations when the Company's earnings are affected by the variability in cash flows of the hedged item.
- Net investment in a foreign operation ("NIFO") hedge - in OCI, consistent with the translation adjustment for the hedged net investment in the foreign operation.

The changes in estimated fair values of the hedging derivatives are exclusive of any accruals that are separately reported on the statement of operations within interest income or interest expense to match the location of the hedged item. Accruals on derivatives in net investment hedges are recognized in OCI.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

In its hedge documentation, the Company sets forth how the hedging instrument is expected to hedge the designated risks related to the hedged item and sets forth the method that will be used to retrospectively and prospectively assess the hedging instrument's effectiveness. A derivative designated as a hedging instrument must be assessed as being highly effective in offsetting the designated risk of the hedged item. Hedge effectiveness is formally assessed at inception and at least quarterly throughout the life of the designated hedging relationship. Assessments of hedge effectiveness are also subject to interpretation and estimation and different interpretations or estimates may have a material effect on the amount reported in net income.

The Company discontinues hedge accounting prospectively when: (i) it is determined that the derivative is no longer highly effective in offsetting changes in the estimated fair value or cash flows of a hedged item; (ii) the derivative expires, is sold, terminated, or exercised; (iii) it is no longer probable that the hedged forecasted transaction will occur; or (iv) the derivative is de-designated as a hedging instrument.

When hedge accounting is discontinued because it is determined that the derivative is not highly effective in offsetting changes in the estimated fair value or cash flows of a hedged item, the derivative continues to be carried on the balance sheet at its estimated fair value, with changes in estimated fair value recognized in net derivative gains (losses). The carrying value of the hedged recognized asset or liability under a fair value hedge is no longer adjusted for changes in its estimated fair value due to the hedged risk, and the cumulative adjustment to its carrying value is amortized into income over the remaining life of the hedged item. Provided the hedged forecasted transaction is still probable of occurring, the changes in estimated fair value of derivatives recorded in OCI related to discontinued cash flow hedges are released into the statement of operations when the Company's earnings are affected by the variability in cash flows of the hedged item.

When hedge accounting is discontinued because it is no longer probable that the forecasted transactions will occur on the anticipated date or within two months of that date, the derivative continues to be carried on the balance sheet at its estimated fair value, with changes in estimated fair value recognized currently in net derivative gains (losses). Deferred gains and losses of a derivative recorded in OCI pursuant to the discontinued cash flow hedge of a forecasted transaction that is no longer probable of occurring are recognized immediately in net investment gains (losses).

In all other situations in which hedge accounting is discontinued, the derivative is carried at its estimated fair value on the balance sheet, with changes in its estimated fair value recognized in the current period as net derivative gains (losses).

Embedded Derivatives

The Company issues certain insurance products, which include variable annuities, and investment contracts and is a party to certain reinsurance agreements that have embedded derivatives. The Company assesses each identified embedded derivative to determine whether it is required to be bifurcated. The embedded derivative is bifurcated from the host contract and accounted for as a freestanding derivative if:

- the combined instrument is not accounted for in its entirety at estimated fair value with changes in estimated fair value recorded in earnings;
- the terms of the embedded derivative are not clearly and closely related to the economic characteristics of the host contract; and
- a separate instrument with the same terms as the embedded derivative would qualify as a derivative instrument.

Such embedded derivatives are carried on the balance sheet at estimated fair value with the host contract and changes in their estimated fair value are generally reported in net derivative gains (losses). If the Company is unable to properly identify and measure an embedded derivative for separation from its host contract, the entire contract is carried on the balance sheet at estimated fair value, with changes in estimated fair value recognized in the current period in net investment gains (losses) or net investment income. Additionally, the Company may elect to carry an entire contract on the balance sheet at estimated fair value, with changes in estimated fair value recognized in the current period in net investment gains (losses) or net investment income if that contract contains an embedded derivative that requires bifurcation. At inception, the Company attributes to the embedded derivative a portion of the projected future guarantee fees to be collected from the policyholder equal to the present value of projected future guaranteed benefits. Any additional fees represent "excess" fees and are reported in universal life and investment-type product policy fees.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. In most cases, the exit price and the transaction (or entry) price will be the same at initial recognition.

Subsequent to initial recognition, fair values are based on unadjusted quoted prices for identical assets or liabilities in active markets that are readily and regularly obtainable. When such unadjusted quoted prices are not available, estimated fair values are based on quoted prices in markets that are not active, quoted prices for similar but not identical assets or liabilities, or other observable inputs. If these inputs are not available, or observable inputs are not determinable, unobservable inputs and/or adjustments to observable inputs requiring management's judgment are used to determine the estimated fair value of assets and liabilities.

Goodwill

Goodwill represents the future economic benefits arising from net assets acquired in a business combination that are not individually identified and recognized. Goodwill is calculated as the excess of cost over the estimated fair value of such net assets acquired, is not amortized, and is tested for impairment based on a fair value approach at least annually, or more frequently if events or circumstances indicate that there may be justification for conducting an interim test. The Company performs its annual goodwill impairment testing during the third quarter based upon data as of the close of the second quarter. Goodwill associated with a business acquisition is not tested for impairment during the year the business is acquired unless there is a significant identified impairment event.

The impairment test is performed at the reporting unit level, which is the operating segment or a business one level below the operating segment, if discrete financial information is prepared and regularly reviewed by management at that level. For purposes of goodwill impairment testing, if the carrying value of a reporting unit exceeds its estimated fair value, there may be an indication of impairment. In such instances, the implied fair value of the goodwill is determined in the same manner as the amount of goodwill that would be determined in a business combination. The excess of the carrying value of goodwill over the implied fair value of goodwill would be recognized as an impairment and recorded as a charge against net income.

On an ongoing basis, the Company evaluates potential triggering events that may affect the estimated fair value of the Company's reporting units to assess whether any goodwill impairment exists. Deteriorating or adverse market conditions for certain reporting units may have a significant impact on the estimated fair value of these reporting units and could result in future impairments of goodwill.

Employee Benefit Plans

Certain subsidiaries of MetLife, Inc. sponsor defined benefit pension plans and other postretirement benefit plans covering eligible employees. Measurement dates used for all of the subsidiaries' defined benefit pension and other postretirement benefit plans correspond with the fiscal year ends of sponsoring subsidiaries, which is December 31 for U.S. and non-U.S. subsidiaries.

The Company recognizes the funded status of each of its defined benefit pension and postretirement benefit plans, measured as the difference between the fair value of plan assets and the benefit obligation, which is the projected benefit obligation ("PBO") for pension benefits and the accumulated postretirement benefit obligation ("APBO") for other postretirement benefits in other assets or other liabilities.

Actuarial gains and losses result from differences between the actual experience and the assumed experience on plan assets or PBO during a particular period and are recorded in accumulated OCI ("AOCI"). To the extent such gains and losses exceed 10% of the greater of the PBO or the estimated fair value of plan assets, the excess is amortized into net periodic benefit costs, generally over the average projected future service years of the active employees. In addition, prior service costs (credit) are recognized in AOCI at the time of the amendment and then amortized to net periodic benefit costs over the average projected future service years of the active employees.

Net periodic benefit costs are determined using management's estimates and actuarial assumptions and are comprised of service cost, interest cost, settlement and curtailment costs, expected return on plan assets, amortization of net actuarial (gains) losses, and amortization of prior service costs (credit). Fair value is used to determine the expected return on plan assets.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

The subsidiaries also sponsor defined contribution plans for substantially all U.S. employees under which a portion of employee contributions is matched. Applicable matching contributions are made each payroll period. Accordingly, the Company recognizes compensation cost for current matching contributions. As all contributions are transferred currently as earned to the defined contribution plans, no liability for matching contributions is recognized on the balance sheets.

Income Tax

MetLife, Inc. and its includable life insurance and non-life insurance subsidiaries file a consolidated U.S. federal income tax return in accordance with the provisions of the Internal Revenue Code of 1986, as amended. Non-includable subsidiaries file either separate individual corporate tax returns or separate consolidated tax returns.

The Company's accounting for income taxes represents management's best estimate of various events and transactions.

Deferred tax assets and liabilities resulting from temporary differences between the financial reporting and tax bases of assets and liabilities are measured at the balance sheet date using enacted tax rates expected to apply to taxable income in the years the temporary differences are expected to reverse.

The realization of deferred tax assets depends upon the existence of sufficient taxable income within the carryback or carryforward periods under the tax law in the applicable tax jurisdiction. Valuation allowances are established against deferred tax assets when management determines, based on available information, that it is more likely than not that deferred income tax assets will not be realized. Significant judgment is required in determining whether valuation allowances should be established, as well as the amount of such allowances. When making such determination, the Company considers many factors, including:

- the nature, frequency, and amount of cumulative financial reporting income and losses in recent years;
- the jurisdiction in which the deferred tax asset was generated;
- the length of time that carryforward can be utilized in the various taxing jurisdictions;
- future taxable income exclusive of reversing temporary differences and carryforwards;
- future reversals of existing taxable temporary differences;
- taxable income in prior carryback years; and
- tax planning strategies.

The Company may be required to change its provision for income taxes when estimates used in determining valuation allowances on deferred tax assets significantly change or when receipt of new information indicates the need for adjustment in valuation allowances. Additionally, the effect of changes in tax laws, tax regulations, or interpretations of such laws or regulations, is recognized in net income tax expense (benefit) in the period of change.

The Company determines whether it is more likely than not that a tax position will be sustained upon examination by the appropriate taxing authorities before any part of the benefit can be recorded on the financial statements. A tax position is measured at the largest amount of benefit that is greater than 50% likely of being realized upon settlement. Unrecognized tax benefits due to tax uncertainties that do not meet the threshold are included within other liabilities and are charged to earnings in the period that such determination is made.

The Company classifies interest recognized as interest expense and penalties recognized as a component of income tax expense.

On December 22, 2017, President Trump signed into law H.R.1, commonly referred to as the Tax Cuts and Jobs Act of 2017 ("U.S. Tax Reform"). See Note 19 for additional information on U.S. Tax Reform and related Staff Accounting Bulletin 118 ("SAB 118") provisional amounts.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Litigation Contingencies

The Company is a defendant in a large number of litigation matters and is involved in a number of regulatory investigations. Given the large and/or indeterminate amounts sought in certain of these matters and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material effect on the Company's consolidated net income or cash flows in particular quarterly or annual periods. Liabilities are established when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Except as otherwise disclosed in Note 21, legal costs are recognized as incurred. On a quarterly and annual basis, the Company reviews relevant information with respect to liabilities for litigation, regulatory investigations and litigation-related contingencies to be reflected on the Company's consolidated financial statements.

Other Accounting Policies

Stock-Based Compensation

The Company grants certain employees and directors stock-based compensation awards under various plans that are subject to specific vesting conditions. With the exception of performance shares granted in 2013 through 2018, and cash-payable awards, each of which are re-measured quarterly, the Company measures the cost of all stock-based transactions at fair value at grant date and recognizes it over the period during which a grantee must provide services in exchange for the award. Employees who meet certain age-and-service criteria receive payment or may exercise their awards regardless of ending employment. However, the award's payment or exercisability takes place at the originally-scheduled time, i.e., is not accelerated. As a result, the award does not require the employee to provide any substantive service after attaining those age-and-service criteria. Accordingly, the Company recognizes compensation expense related to stock-based awards from the beginning of the vesting to the earlier of the end of the vesting period or the date the employee attains the age-and-service criteria. The Company incorporates an estimation of future forfeitures of stock-based awards into the determination of compensation expense when recognizing expense over the requisite service period.

Cash and Cash Equivalents

The Company considers highly liquid securities and other investments purchased with an original or remaining maturity of three months or less at the date of purchase to be cash equivalents. Securities included within cash equivalents are stated at estimated fair value, while other investments included within cash equivalents are stated at amortized cost, which approximates estimated fair value.

Property, Equipment, Leasehold Improvements and Computer Software

Property, equipment and leasehold improvements, which are included in other assets, are stated at cost, less accumulated depreciation and amortization. Depreciation is determined using the straight-line method over the estimated useful lives of the assets, as appropriate. The estimated life is generally 40 years for company occupied real estate property, from one to 25 years for leasehold improvements, and from three to seven years for all other property and equipment. The cost basis of the property, equipment and leasehold improvements was $2.7 billion and $2.6 billion at December 31, 2019 and 2018, respectively. Accumulated depreciation and amortization of property, equipment and leasehold improvements was $1.4 billion and $1.2 billion at December 31, 2019 and 2018, respectively. Related depreciation and amortization expense was $207 million, $191 million and $207 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Computer software, which is included in other assets, is stated at cost, less accumulated amortization. Purchased software costs, as well as certain internal and external costs incurred to develop internal-use computer software during the application development stage, are capitalized. Such costs are amortized generally over a four-year period using the straight-line method. The cost basis of computer software was $3.4 billion and $3.1 billion at December 31, 2019 and 2018, respectively. Accumulated amortization of capitalized software was $2.5 billion and $2.2 billion at December 31, 2019 and 2018, respectively. Related amortization expense was $262 million, $276 million and $250 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Leases

The Company, as lessee, has entered into various lease and sublease agreements for office space and equipment. At contract inception, the Company determines that an arrangement contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. For contracts that contain a lease, the Company recognizes the right-of-use ("ROU") asset in Other assets and the lease liability in Other liabilities. Leases with an initial term of 12 months or less are not recorded on the balance sheet.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. ROU assets and lease liabilities are determined using the Company's incremental borrowing rate based upon information available at commencement date to recognize the present value of lease payments over the lease term. ROU assets also include lease payments and excludes lease incentives. Lease terms may include options to extend or terminate the lease and are included in the lease measurement when it is reasonably certain that the Company will exercise that option.

The Company has lease agreements with lease and non-lease components. The Company does not separate lease and non-lease components and accounts for these items as a single lease component for all asset classes.

The majority of the Company's leases and subleases are operating leases related to office space. The Company recognizes lease expense for operating leases on a straight-line basis over the lease term.

Other Revenues

Other revenues primarily include fees related to service contracts from customers for prepaid legal plans, administrative services-only ("ASO") contracts, and investment management services. Substantially all of the revenue from the services is recognized over time as the applicable services are provided or are made available to the customers. The revenue recognized includes variable consideration to the extent it is probable that a significant reversal will not occur. In addition to the service fees, other revenues also include certain stable value fees and other miscellaneous revenues. These fees and miscellaneous revenues are recognized as earned.

Policyholder Dividends

Policyholder dividends are approved annually by the insurance subsidiaries' boards of directors. The aggregate amount of policyholder dividends is related to actual interest, mortality, morbidity and expense experience for the year, as well as management's judgment as to the appropriate level of statutory surplus to be retained by the insurance subsidiaries.

Foreign Currency

Assets, liabilities and operations of foreign affiliates and subsidiaries are recorded based on the functional currency of each entity. The determination of the functional currency is made based on the appropriate economic and management indicators. For most of the Company's foreign operations, the local currency is the functional currency. For certain other foreign operations, such as Japan, the local currency and one or more other currencies qualify as functional currencies. Assets and liabilities of foreign affiliates and subsidiaries are translated from the functional currency to U.S. dollars at the exchange rates in effect at each year-end and revenues and expenses are translated at the average exchange rates during the year. The resulting translation adjustments are charged or credited directly to OCI, net of applicable taxes. Gains and losses from foreign currency transactions, including the effect of re-measurement of monetary assets and liabilities to the appropriate functional currency, are reported as part of net investment gains (losses) in the period in which they occur.

Earnings Per Common Share

Basic earnings per common share are computed based on the weighted average number of common shares, or their equivalent, outstanding during the period. Diluted earnings per common share include the dilutive effect of the assumed exercise or issuance of stock-based awards using the treasury stock method. Under the treasury stock method, exercise or issuance of stock-based awards is assumed to occur with the proceeds used to purchase common stock at the average market price for the period. The difference between the number of shares assumed issued and number of shares assumed purchased represents the dilutive shares.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Recent Accounting Pronouncements

Changes to GAAP are established by the Financial Accounting Standards Board ("FASB") in the form of accounting standards updates ("ASUs") to the FASB Accounting Standards Codification. The Company considers the applicability and impact of all ASUs. The following tables provide a description of new ASUs issued by the FASB and the impact of the adoption on the Company's consolidated financial statements.

Adoption of New Accounting Pronouncements

Except as noted below, the ASUs adopted by the Company effective January 1, 2019 did not have a material impact on its consolidated financial statements or disclosures.

Standard	Description	Effective Date and Method of Adoption	Impact on Financial Statements
ASU 2018-14, *Compensation-Retirement Benefits-Defined Benefit Plans-General (Subtopic 715-20): Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans*	The new guidance removes certain disclosures that no longer are considered cost beneficial, clarifies the specific requirements of certain disclosures, and adds disclosure requirements identified as relevant for employers that sponsor defined benefit pension or other postretirement plans.	December 31, 2020. The Company early adopted using a retrospective approach to all periods presented.	The adoption of the new guidance did not have an impact on the Company's consolidated financial statements. The Company has included updated disclosures within Note 18.
ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities,* as clarified and amended by ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*	The new guidance simplifies the application of hedge accounting in certain situations and amends the hedge accounting model to enable entities to better portray the economics of their risk management activities in their financial statements.	January 1, 2019. The Company adopted using a modified retrospective approach.	The adoption of the guidance resulted in an $18 million, net of income tax, increase to AOCI with a corresponding decrease to retained earnings due to the reclassification of hedge ineffectiveness for cash flow hedging relationships existing as of January 1, 2019. The Company has included expanded disclosures within Note 9.
ASU 2016-02, *Leases (Topic 842),* as clarified and amended by ASU 2018-10, *Codification Improvements to Topic 842, Leases,* ASU 2018-11, *Leases (Topic 842): Targeted Improvements,* and ASU 2018-20, *Leases (Topic 842): Narrow-Scope Improvements for Lessors*	The new guidance requires a lessee to recognize assets and liabilities for leases with lease terms of more than 12 months. Leases are classified as finance or operating leases and both types of leases are recognized on the balance sheet. Lessor accounting remains largely unchanged from previous guidance except for certain targeted changes. The new guidance also requires new qualitative and quantitative disclosures. In July 2018, two amendments to the new guidance were issued. The amendments provide the option to adopt the new guidance prospectively without adjusting comparative periods. Also, the amendments provide lessors with a practical expedient not to separate lease and non-lease components for certain operating leases. In December 2018, an amendment was issued to clarify lessor accounting relating to taxes, certain lessor's costs and variable payments related to both lease and non-lease components.	January 1, 2019. The Company adopted using a modified retrospective approach.	The Company elected the package of practical expedients allowed under the transition guidance. This allowed the Company to carry forward its historical lease classification. In addition, the Company elected all other practical expedients that were allowed under the new guidance and were applicable, including the practical expedient to combine lease and non-lease components into one lease component for certain real estate leases. The adoption of this guidance resulted in the recording of additional net ROU assets and lease liabilities of approximately $1.5 billion and $1.7 billion, respectively, as of January 1, 2019. The reduction of ROU assets was a result of adjustments for prepaid/deferred rent, unamortized initial direct costs and impairment of certain ROU assets based on the net present value of the remaining minimum lease payments and sublease revenues. In addition, retained earnings increased by $95 million, net of income tax, as a result of the recognition of deferred gains on previous sale leaseback transactions. The guidance did not have a material impact on the Company's consolidated net income and cash flows. The Company has included expanded disclosures on the consolidated balance sheets and in Notes 8 and 11.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Future Adoption of New Accounting Pronouncements

ASUs not listed below were assessed and either determined to be not applicable or are not expected to have a material impact on the Company's consolidated financial statements or disclosures. ASUs issued but not yet adopted as of December 31, 2019 that are currently being assessed and may or may not have a material impact on the Company's consolidated financial statements or disclosures are summarized in the table below.

Standard	Description	Effective Date and Method of Adoption	Impact on Financial Statements
ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*	The new guidance simplifies the accounting for income taxes by removing certain exceptions to the tax accounting guidance and providing clarification to other specific tax accounting guidance to eliminate variations in practice. Specifically, it removes the exceptions related to the a) incremental approach for intraperiod tax allocation when there is a loss from continuing operations and income or a gain from other items, b) recognition of a deferred tax liability when foreign investment ownership changes from equity method investment to consolidated subsidiary and vice versa and c) use of interim period tax accounting for year-to-date losses that exceed anticipated losses. The guidance also simplifies the application of the income tax guidance for franchise taxes that are partially based on income and the accounting for tax law changes during interim periods, clarifies the accounting for transactions that result in a step-up in tax basis of goodwill, provides for the option to elect allocation of consolidated income taxes to entities disregarded by taxing authorities for their stand-alone reporting, and requires that an entity reflect the effect of an enacted change in tax laws or rates in the annual effective tax rate computation in the interim period that includes the enactment date.	January 1, 2021. The new guidance should be applied either on a retrospective, modified retrospective or prospective basis based on what items the amendments relates to. Early adoption is permitted.	The Company has started its implementation efforts and is currently evaluating the impact of the new guidance on its consolidated financial statements.
ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*	The new guidance requires a customer in a cloud computing arrangement that is a service contract to follow the internal-use software guidance to determine which implementation costs to capitalize as an asset and which costs to expense as incurred. Implementation costs that are capitalized under the new guidance are required to be amortized over the term of the hosting arrangement, beginning when the module or component of the hosting arrangement is ready for its intended use.	January 1, 2020. The new guidance can be applied either prospectively to eligible costs incurred on or after the guidance is first applied, or retrospectively to all periods presented.	The new guidance will not have a material impact on the Company's consolidated financial statements and will be adopted prospectively.
ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*	The new guidance modifies the disclosure requirements on fair value by removing some requirements, modifying others, adding changes in unrealized gains and losses included in OCI for recurring Level 3 fair value measurements, and under certain circumstances, providing the option to disclose certain other quantitative information with respect to significant unobservable inputs in lieu of a weighted average.	January 1, 2020. Amendments related to changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively. All other amendments should be applied retrospectively.	As of December 31, 2018, the Company early adopted the provisions of the guidance that removed the requirements relating to transfers between fair value hierarchy levels and certain disclosures about valuation processes for Level 3 fair value measurements. The Company will adopt the remainder of the new guidance at the effective date. The new guidance will not have a material impact on the Company's consolidated financial statements.

1. Business, Basis of Presentation and Summary of Significant Accounting Policies (continued)

Standard	Description	Effective Date and Method of Adoption	Impact on Financial Statements
ASU 2018-12, *Financial Services—Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts,* as amended by ASU 2019-09, *Financial Services—Insurance (Topic 944): Effective Date*	The new guidance (i) prescribes the discount rate to be used in measuring the liability for future policy benefits for traditional and limited payment long-duration contracts, and requires assumptions for those liability valuations to be updated after contract inception, (ii) requires more market-based product guarantees on certain separate account and other account balance long-duration contracts to be accounted for at fair value, (iii) simplifies the amortization of DAC for virtually all long-duration contracts, and (iv) introduces certain financial statement presentation requirements, as well as significant additional quantitative and qualitative disclosures. The amendments in ASU 2019-09 defer the effective date of the amendments in update 2018-12 for all entities.	January 1, 2022, to be applied retrospectively to January 1, 2020 (with early adoption permitted).	The Company has started its implementation efforts and is currently evaluating the impact of the new guidance. Given the nature and extent of the required changes to a significant portion of the Company's operations, the adoption of this guidance is expected to have a material impact on the Company's consolidated financial statements.
ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*	The new guidance simplifies the current two-step goodwill impairment test by eliminating Step 2 of the test. The new guidance requires a one-step impairment test in which an entity compares the fair value of a reporting unit with its carrying amount and recognizes an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, if any.	January 1, 2020, to be applied on a prospective basis.	The new guidance will reduce the complexity involved with the evaluation of goodwill for impairment. The impact of the new guidance will depend on the outcomes of future goodwill impairment tests.
ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments,* as clarified and amended by ASU 2018-19, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses,* ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments,* ASU 2019-05, *Financial Instruments—Credit Losses (Topic 326): Targeted Transition Relief,* and ASU 2019-11, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses*	This new guidance requires an allowance for credit losses based on the expectation of lifetime credit losses on financing receivables carried at amortized cost, including, but not limited to, mortgage loans, premium receivables, reinsurance receivables and leases other than operating leases. The current model for OTTI on AFS debt securities has been modified and requires the recording of an allowance for credit losses instead of a reduction of the carrying value. Any improvements in expected future cash flows will no longer be reflected as a prospective yield adjustment, but instead will be reflected as a reduction in the allowance. The new guidance also replaces the model for purchased credit impaired debt securities and financing receivables and requires the establishment of an allowance for credit losses at acquisition, which is added to the purchase price to establish the initial amortized cost of the instrument. The new guidance also requires enhanced disclosures.	January 1, 2020, to be applied on a modified retrospective basis, which requires transition adjustments to be recorded as a cumulative effect adjustment to retained earnings.	The Company has finalized the development of the credit loss models for its financing receivables carried at amortized cost. The development of these credit loss models included data input validations, updates to information systems and enhanced policies and controls. At December 31, 2019, the allowance for credit losses was approximately 0.50% of the amortized cost of financing receivables in scope. The Company estimates that upon adoption, the allowance for credit losses will be less than 1.00% of the amortized cost of financing receivables in scope. The increase in the allowance for credit losses primarily relates to the Company's residential mortgage loan portfolio.

2. Segment Information

MetLife is organized into five segments: U.S.; Asia; Latin America; EMEA; and MetLife Holdings. In addition, the Company reports certain of its results of operations in Corporate & Other.

U.S.

The U.S. segment offers a broad range of protection products and services aimed at serving the financial needs of customers throughout their lives. These products are sold to corporations and their respective employees, other institutions and their respective members, as well as individuals. The U.S. segment is organized into three businesses: Group Benefits, Retirement and Income Solutions ("RIS") and Property & Casualty.

- The Group Benefits business offers life, dental, group short- and long-term disability, individual disability, accidental death and dismemberment, vision and accident & health coverages, as well as prepaid legal plans. This business also sells ASO arrangements to some employers.
- The RIS business offers a broad range of life and annuity-based insurance and investment products, including stable value and pension risk transfer products, institutional income annuities, tort settlements, and capital markets investment products, as well as solutions for funding postretirement benefits and company-, bank- or trust-owned life insurance.
- The Property & Casualty business offers personal lines of property and casualty insurance, including private passenger automobile, homeowners' and personal excess liability insurance.

Asia

The Asia segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees, which include whole and term life, group life, endowments, universal and variable life, accident & health insurance and fixed and variable annuities.

Latin America

The Latin America segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees, which include life insurance, retirement and savings products, accident & health insurance and credit insurance.

EMEA

The EMEA segment offers a broad range of products to both individuals and corporations, as well as to other institutions, and their respective employees, which include life insurance, accident & health insurance, retirement and savings products and credit insurance.

MetLife Holdings

The MetLife Holdings segment consists of operations relating to products and businesses, previously included in MetLife's former retail business, that the Company no longer actively markets in the United States, such as variable, universal, term and whole life insurance, variable, fixed and index-linked annuities, and long-term care insurance, as well as the assumed variable annuity guarantees from the Company's former operating joint venture in Japan.

Corporate & Other

Corporate & Other contains various start-up, developing and run-off businesses. Also included in Corporate & Other are: the excess capital, as well as certain charges and activities, not allocated to the segments (including external integration and disposition costs, internal resource costs for associates committed to acquisitions and dispositions and enterprise-wide strategic initiative restructuring charges), interest expense related to the majority of the Company's outstanding debt, expenses associated with certain legal proceedings and income tax audit issues, the elimination of intersegment amounts (which generally relate to affiliated reinsurance, investment expenses and intersegment loans, bearing interest rates commensurate with related borrowings), and the Company's investment management business (through which the Company provides public fixed income, private capital and real estate investment solutions to institutional investors worldwide).

2. Segment Information (continued)

Financial Measures and Segment Accounting Policies

Adjusted earnings is used by management to evaluate performance and allocate resources. Consistent with GAAP guidance for segment reporting, adjusted earnings is also the Company's GAAP measure of segment performance and is reported below. Adjusted earnings should not be viewed as a substitute for income (loss) from continuing operations, net of income tax. The Company believes the presentation of adjusted earnings, as the Company measures it for management purposes, enhances the understanding of its performance by highlighting the results of operations and the underlying profitability drivers of the business.

Adjusted earnings is defined as adjusted revenues less adjusted expenses, net of income tax.

The financial measures of adjusted revenues and adjusted expenses focus on the Company's primary businesses principally by excluding the impact of market volatility, which could distort trends, and revenues and costs related to non-core products and certain entities required to be consolidated under GAAP. Also, these measures exclude results of discontinued operations under GAAP and other businesses that have been or will be sold or exited by MetLife but do not meet the discontinued operations criteria under GAAP and are referred to as divested businesses. Divested businesses also includes the net impact of transactions with exited businesses that have been eliminated in consolidation under GAAP and costs relating to businesses that have been or will be sold or exited by MetLife that do not meet the criteria to be included in results of discontinued operations under GAAP. Adjusted revenues also excludes net investment gains (losses) and net derivative gains (losses). Adjusted expenses also excludes goodwill impairments.

The following additional adjustments are made to revenues, in the line items indicated, in calculating adjusted revenues:

- Universal life and investment-type product policy fees excludes the amortization of unearned revenue related to net investment gains (losses) and net derivative gains (losses) and certain variable annuity GMIB fees ("GMIB fees");
- Net investment income: (i) includes adjustments for earned income on derivatives and amortization of premium on derivatives that are hedges of investments or that are used to replicate certain investments, but do not qualify for hedge accounting treatment, (ii) excludes post-tax adjusted earnings adjustments relating to insurance joint ventures accounted for under the equity method, (iii) excludes certain amounts related to contractholder-directed equity securities, (iv) excludes certain amounts related to securitization entities that are VIEs consolidated under GAAP and (v) includes distributions of profits from certain other limited partnership interests that were previously accounted for under the cost method, but are now accounted for at estimated fair value, where the change in estimated fair value is recognized in net investment gains (losses) under GAAP; and
- Other revenues is adjusted for settlements of foreign currency earnings hedges and excludes fees received in association with services provided under transition service agreements ("TSA fees").

2. Segment Information (continued)

The following additional adjustments are made to expenses, in the line items indicated, in calculating adjusted expenses:

- Policyholder benefits and claims and policyholder dividends excludes: (i) amortization of basis adjustments associated with de-designated fair value hedges of future policy benefits, (ii) changes in the policyholder dividend obligation related to net investment gains (losses) and net derivative gains (losses), (iii) inflation-indexed benefit adjustments associated with contracts backed by inflation-indexed investments and amounts associated with periodic crediting rate adjustments based on the total return of a contractually referenced pool of assets and other pass through adjustments, (iv) benefits and hedging costs related to GMIBs ("GMIB costs") and (v) market value adjustments associated with surrenders or terminations of contracts ("Market value adjustments");
- Interest credited to policyholder account balances includes adjustments for earned income on derivatives and amortization of premium on derivatives that are hedges of policyholder account balances but do not qualify for hedge accounting treatment and excludes certain amounts related to net investment income earned on contractholder-directed equity securities;
- Amortization of DAC and VOBA excludes amounts related to: (i) net investment gains (losses) and net derivative gains (losses), (ii) GMIB fees and GMIB costs and (iii) Market value adjustments;
- Amortization of negative VOBA excludes amounts related to Market value adjustments;
- Interest expense on debt excludes certain amounts related to securitization entities that are VIEs consolidated under GAAP; and
- Other expenses excludes: (i) noncontrolling interests, (ii) implementation of new insurance regulatory requirements costs, and (iii) acquisition, integration and other costs. Other expenses includes TSA fees.

Adjusted earnings also excludes the recognition of certain contingent assets and liabilities that could not be recognized at acquisition or adjusted for during the measurement period under GAAP business combination accounting guidance.

The tax impact of the adjustments mentioned above are calculated net of the U.S. or foreign statutory tax rate, which could differ from the Company's effective tax rate. Additionally, the provision for income tax (expense) benefit also includes the impact related to the timing of certain tax credits, as well as certain tax reforms.

Set forth in the tables below is certain financial information with respect to the Company's segments, as well as Corporate & Other, for the years ended December 31, 2019, 2018 and 2017 and at December 31, 2019 and 2018. The segment accounting policies are the same as those used to prepare the Company's consolidated financial statements, except for adjusted earnings adjustments as defined above. In addition, segment accounting policies include the method of capital allocation described below.

Economic capital is an internally developed risk capital model, the purpose of which is to measure the risk in the business and to provide a basis upon which capital is deployed. The economic capital model accounts for the unique and specific nature of the risks inherent in the Company's business.

The Company's economic capital model, coupled with considerations of local capital requirements, aligns segment allocated equity with emerging standards and consistent risk principles. The model applies statistics-based risk evaluation principles to the material risks to which the Company is exposed. These consistent risk principles include calibrating required economic capital shock factors to a specific confidence level and time horizon while applying an industry standard method for the inclusion of diversification benefits among risk types. The Company's management is responsible for the ongoing production and enhancement of the economic capital model and reviews its approach periodically to ensure that it remains consistent with emerging industry practice standards.

Segment net investment income is credited or charged based on the level of allocated equity; however, changes in allocated equity do not impact the Company's consolidated net investment income, income (loss) from continuing operations, net of income tax, or adjusted earnings.

Net investment income is based upon the actual results of each segment's specifically identifiable investment portfolios adjusted for allocated equity. Other costs are allocated to each of the segments based upon: (i) a review of the nature of such costs; (ii) time studies analyzing the amount of employee compensation costs incurred by each segment; and (iii) cost estimates included in the Company's product pricing.

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2. Segment Information (continued)

Year Ended December 31, 2019	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total	Adjustments	Total Consolidated
					(In millions)				
Revenues									
Premiums	$ 26,801	$ 6,632	$ 2,723	$ 2,177	$ 3,748	$ 83	$ 42,164	$ 71	$ 42,235
Universal life and investment-type product policy fees	1,078	1,674	1,094	423	1,124	2	5,395	208	5,603
Net investment income	7,021	3,691	1,271	291	5,281	275	17,830	1,038	18,868
Other revenues	887	56	44	54	253	291	1,585	257	1,842
Net investment gains (losses)	—	—	—	—	—	—	—	444	444
Net derivative gains (losses)	—	—	—	—	—	—	—	628	628
Total revenues	35,787	12,053	5,132	2,945	10,406	651	66,974	2,646	69,620
Expenses									
Policyholder benefits and claims and policyholder dividends	26,165	5,185	2,623	1,176	6,970	73	42,192	480	42,672
Interest credited to policyholder account balances	1,984	1,710	332	98	905	—	5,029	1,435	6,464
Capitalization of DAC	(484)	(1,913)	(396)	(505)	(28)	(12)	(3,338)	(20)	(3,358)
Amortization of DAC and VOBA	475	1,288	291	428	299	6	2,787	109	2,896
Amortization of negative VOBA	—	(25)	—	(8)	—	—	(33)	—	(33)
Interest expense on debt	10	—	3	—	8	934	955	—	955
Other expenses	4,075	3,818	1,443	1,399	969	1,074	12,778	451	13,229
Total expenses	32,225	10,063	4,296	2,588	9,123	2,075	60,370	2,455	62,825
Provision for income tax expense (benefit)	724	585	227	75	249	(1,201)	659	227	886
Adjusted earnings	$ 2,838	$ 1,405	$ 609	$ 282	$ 1,034	$ (223)	5,945		
Adjustments to:									
Total revenues							2,646		
Total expenses							(2,455)		
Provision for income tax (expense) benefit							(227)		
Income (loss) from continuing operations, net of income tax							$ 5,909		$ 5,909

At December 31, 2019	U.S.	Asia (1)	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Total assets	$ 266,174	$ 161,018	$ 75,069	$ 27,281	$ 175,199	$ 35,722	$ 740,463
Separate account assets	$ 75,929	$ 9,250	$ 52,018	$ 5,639	$ 45,609	$ —	$ 188,445
Separate account liabilities	$ 75,929	$ 9,250	$ 52,018	$ 5,639	$ 45,609	$ —	$ 188,445

(1) Total assets includes $134.0 billion of assets from the Japan operations which represents 18% of total consolidated assets.

MetLife, Inc.

Notes to the Consolidated Financial Statements — (continued)

2. Segment Information (continued)

Year Ended December 31, 2018	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total	Adjustments	Total Consolidated
					(In millions)				
Revenues									
Premiums	$ 28,186	$ 6,766	$ 2,760	$ 2,131	$ 3,879	$ 118	$ 43,840	$ —	$ 43,840
Universal life and investment-type product policy fees	1,053	1,630	1,050	431	1,218	—	5,382	120	5,502
Net investment income	6,977	3,317	1,239	293	5,379	178	17,383	(1,217)	16,166
Other revenues	821	51	35	66	250	333	1,556	324	1,880
Net investment gains (losses)	—	—	—	—	—	—	—	(298)	(298)
Net derivative gains (losses)	—	—	—	—	—	—	—	851	851
Total revenues	37,037	11,764	5,084	2,921	10,726	629	68,161	(220)	67,941
Expenses									
Policyholder benefits and claims and policyholder dividends	27,765	5,326	2,602	1,127	6,833	80	43,733	174	43,907
Interest credited to policyholder account balances	1,790	1,465	394	100	944	—	4,693	(680)	4,013
Capitalization of DAC	(449)	(1,915)	(377)	(468)	(36)	(8)	(3,253)	(1)	(3,254)
Amortization of DAC and VOBA	477	1,302	209	434	332	6	2,760	215	2,975
Amortization of negative VOBA	—	(39)	(1)	(15)	—	—	(55)	(1)	(56)
Interest expense on debt	12	—	6	—	9	1,032	1,059	63	1,122
Other expenses	3,902	3,840	1,421	1,378	1,081	907	12,529	398	12,927
Total expenses	33,497	9,979	4,254	2,556	9,163	2,017	61,466	168	61,634
Provision for income tax expense (benefit)	736	548	238	88	308	(825)	1,093	86	1,179
Adjusted earnings	$ 2,804	$ 1,237	$ 592	$ 277	$ 1,255	$ (563)	5,602		
Adjustments to:									
Total revenues							(220)		
Total expenses							(168)		
Provision for income tax (expense) benefit							(86)		
Income (loss) from continuing operations, net of income tax							$ 5,128		$ 5,128

At December 31, 2018	U.S.	Asia (1)	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Total assets	$ 248,174	$ 146,278	$ 70,417	$ 27,829	$ 166,872	$ 27,968	$ 687,538
Separate account assets	$ 71,436	$ 8,849	$ 47,757	$ 5,306	$ 42,208	$ —	$ 175,556
Separate account liabilities	$ 71,436	$ 8,849	$ 47,757	$ 5,306	$ 42,208	$ —	$ 175,556

(1) Total assets includes $120.0 billion of assets from the Japan operations which represents 17% of total consolidated assets.

MetLife, Inc.

Notes to the Consolidated Financial Statements — (continued)

2. Segment Information (continued)

Year Ended December 31, 2017	U.S.	Asia	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total	Adjustments	Total Consolidated
					(In millions)				
Revenues									
Premiums	$ 23,632	$ 6,755	$ 2,693	$ 2,061	$ 4,144	$ 54	$ 39,339	$ (347)	$ 38,992
Universal life and investment-type product policy fees	1,012	1,584	1,044	405	1,361	1	5,407	103	5,510
Net investment income	6,396	2,985	1,219	309	5,607	28	16,544	819	17,363
Other revenues	806	43	32	58	244	271	1,454	(113)	1,341
Net investment gains (losses)	—	—	—	—	—	—	—	(308)	(308)
Net derivative gains (losses)	—	—	—	—	—	—	—	(590)	(590)
Total revenues	31,846	11,367	4,988	2,833	11,356	354	62,744	(436)	62,308
Expenses									
Policyholder benefits and claims and policyholder dividends	23,627	5,075	2,535	1,077	7,000	26	39,340	204	39,544
Interest credited to policyholder account balances	1,474	1,351	369	100	1,018	1	4,313	1,294	5,607
Capitalization of DAC	(458)	(1,710)	(364)	(414)	(82)	(8)	(3,036)	34	(3,002)
Amortization of DAC and VOBA	459	1,300	224	357	302	6	2,648	33	2,681
Amortization of negative VOBA	—	(111)	(1)	(19)	—	—	(131)	(9)	(140)
Interest expense on debt	11	—	5	—	24	1,105	1,145	(16)	1,129
Other expenses	3,682	3,613	1,479	1,376	1,365	894	12,409	544	12,953
Total expenses	28,795	9,518	4,247	2,477	9,627	2,024	56,688	2,084	58,772
Provision for income tax expense (benefit)	1,024	620	156	59	547	(688)	1,718	(3,188)	(1,470)
Adjusted earnings	$ 2,027	$ 1,229	$ 585	$ 297	$ 1,182	$ (982)	4,338		
Adjustments to:									
Total revenues							(436)		
Total expenses							(2,084)		
Provision for income tax (expense) benefit							3,188		
Income (loss) from continuing operations, net of income tax							$ 5,006		$ 5,006

2. Segment Information (continued)

The following table presents total premiums, universal life and investment-type product policy fees and other revenues by major product groups of the Company's segments, as well as Corporate & Other:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Life insurance	$ 20,759	$ 20,550	$ 20,330
Accident & health insurance	15,159	14,489	14,002
Annuities	8,590	10,990	6,999
Property and casualty insurance	3,716	3,651	3,613
Other	1,456	1,542	899
Total	$ 49,680	$ 51,222	$ 45,843

The following table presents total premiums, universal life and investment-type product policy fees and other revenues associated with the Company's U.S. and foreign operations:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
U.S.	$ 34,433	$ 36,078	$ 30,971
Foreign:			
Japan	6,608	6,435	6,444
Other	8,639	8,709	8,428
Total	$ 49,680	$ 51,222	$ 45,843

Revenues derived from any customer did not exceed 10% of consolidated premiums, universal life and investment-type product policy fees and other revenues for the years ended December 31, 2019 and 2017. Revenues derived from one U.S. segment customer were $6.0 billion for the year ended December 31, 2018, which represented 12% of consolidated premiums, universal life and investment-type product policy fees and other revenues. The revenue was from a single premium received for a pension risk transfer. Revenues derived from any other customer did not exceed 10% of consolidated premiums, universal life and investment-type product policy fees and other revenues for the year ended December 31, 2018.

3. Dispositions

Pending Disposition of MetLife Limited and Metropolitan Life Insurance Company of Hong Kong Limited

In June 2019, the Company entered into a definitive agreement to sell its two wholly-owned subsidiaries, MetLife Limited and Metropolitan Life Insurance Company of Hong Kong Limited (collectively, "MetLife Hong Kong"). As a result of the agreement, a loss of $140 million, net of income tax, was recorded for the year ended December 31, 2019. This loss is comprised of an expected $100 million pre-tax loss, which is reflected in net investment gains (losses) and includes allocated goodwill of $71 million. Additionally, the $140 million loss includes a $40 million net tax charge, which was recorded in the provision for income tax expense (benefit) and includes previously deferred tax items and losses which are not recognized for tax purposes. At December 31, 2019, MetLife Hong Kong reported $2.9 billion of total assets in the Asia segment. MetLife Hong Kong's results of operations are included in continuing operations. MetLife Hong Kong's results of operations were reported in the Asia segment adjusted earnings through June 30, 2019. See Note 2 for information on divested businesses. The transaction is expected to close in 2020 and is subject to regulatory approvals and satisfaction of other closing conditions.

Disposition of MetLife Afore, S.A. de C.V.

In October 2017, the Company entered into a definitive agreement to sell MetLife Afore, S.A. de C.V. ("MetLife Afore"), its pension fund management business in Mexico. As a result of the agreement, a loss of $98 million ($73 million, net of income tax), which includes a reduction to goodwill of $16 million, was recorded for the year ended December 31, 2017 and is reflected within net investment gains (losses). MetLife Afore's results of operations are included in continuing operations and are reported in the Latin America segment. The transaction closed on February 20, 2018.

3. Dispositions (continued)

Separation of Brighthouse

2018 Sale of FVO Brighthouse Common Stock

In June 2018, the Company sold Brighthouse Financial, Inc. common stock ("FVO Brighthouse Common Stock") in exchange for $944 million aggregate principal amount of MetLife, Inc. senior notes, which MetLife, Inc. canceled. The Company recorded $327 million of mark-to-market and disposition losses on the FVO Brighthouse Common Stock to net investment gains (losses) for the year ended December 31, 2018. At December 31, 2018, the Company no longer held any shares of Brighthouse Financial, Inc. for its own account; however, certain insurance company separate accounts managed by the Company held shares of Brighthouse Financial, Inc. See Note 13 for further information on this transaction.

2017 Separation of Brighthouse

In January 2016, MetLife, Inc. announced its plan to separate a substantial portion of its former Retail segment, as well as certain portions of its former Corporate Benefit Funding segment and Corporate & Other. MetLife, Inc. subsequently re-segmented the business to be separated and rebranded it as "Brighthouse Financial." On July 6, 2017, MetLife, Inc. announced that the U.S. Securities and Exchange Commission ("SEC") declared Brighthouse Financial, Inc.'s registration statement on Form 10 effective.

On August 4, 2017, MetLife, Inc. completed the Separation. MetLife, Inc. common shareholders received a distribution of one share of Brighthouse Financial, Inc. common stock for every 11 shares of MetLife, Inc. common stock they owned. MetLife, Inc. distributed 96,776,670 of the 119,773,106 shares of Brighthouse Financial, Inc. common stock outstanding, representing approximately 80.8% of those shares. MetLife, Inc. retained the remaining outstanding shares of Brighthouse Financial, Inc. common stock and recognized its investment in Brighthouse Financial, Inc. common stock based on the NASDAQ reported market price. The Company elected to record the investment under the FVO as an observable measure of estimated fair value and subsequent changes in estimated fair value of the investment were recorded to net investment gains (losses). The Company recorded a $1,016 million mark-to-market loss on its retained investment in Brighthouse Financial, Inc. to net investment gains (losses) at the Separation date and an additional $95 million loss to net investment gains (losses) for the change in Brighthouse Financial, Inc.'s common stock share price from the Separation date to December 31, 2017.

The loss recognized in 2017 in connection with the Separation was $1,302 million, net of income tax, which included: (i) a $1,016 million loss on MetLife's retained investment in Brighthouse Financial, Inc., (ii) a $42 million net tax charge and (iii) a $306 million charge, net of income tax, for transaction costs, partially offset by a $61 million gain, net of income tax, for previously deferred intercompany gains realized upon Separation. The $42 million net tax charge is comprised of a $1,093 million tax separation agreement charge offset by $1,051 million of Separation tax benefits. Of the $1,302 million total loss, net of income tax, a $131 million loss, net of income tax, was reported within continuing operations as (i) a $693 million net investment loss, (ii) a $147 million charge within policyholder benefits and claims, (iii) a $218 million charge within other expenses, and (iv) a $927 million income tax benefit. The remaining $1,171 million loss was reported within discontinued operations, which primarily includes a tax-related charge.

The Company incurred pre-tax Separation-related transaction costs of $470 million for the year ended December 31, 2017, primarily related to fees for the terminations of financing arrangements and professional services. For the year ended December 31, 2017, the Company reported $333 million within discontinued operations for fees for the terminations of financing arrangements and costs required to complete the Separation. All other Separation-related transaction costs are recorded in other expenses and reported within continuing operations.

In connection with the Separation, MetLife, Inc. terminated various support agreements with Brighthouse.

Agreements

In connection with the Separation, MetLife and Brighthouse entered into various agreements. The significant agreements were as follows:

Master Separation Agreement

MetLife entered into a master separation agreement with Brighthouse prior to the completion of the distribution. The master separation agreement sets forth agreements with Brighthouse relating to the ownership of certain assets and the allocation of certain liabilities in connection with the Separation. It also sets forth other agreements governing the relationship with Brighthouse after the distribution, including certain payment obligations between the parties.

3. Dispositions (continued)

Tax Agreements

Immediately prior to the Separation, MetLife entered into a tax separation agreement with Brighthouse. Among other things, the tax separation agreement governs the allocation between MetLife and Brighthouse of the responsibility for the taxes of the MetLife group. The tax separation agreement also allocates rights, obligations and responsibilities in connection with certain administrative matters relating to the preparation of tax returns and control of tax audits and other proceedings relating to taxes. For the taxable periods prior to Separation, MetLife and Brighthouse have joint and several liability for the MetLife consolidated U.S. federal income tax returns' current taxes (and the benefits of tax attributes such as losses) allocated to Brighthouse. The tax separation agreement provides that the Brighthouse allocation of taxes could vary depending upon the outcome of Internal Revenue Service ("IRS") examinations. At December 31, 2019, the Company reported a receivable from Brighthouse of $115 million in other assets, offset by a tax payable of $115 million, of which $70 million was reported in current income tax payable and $45 million was reported in other liabilities. At December 31, 2018, the Company reported a receivable from Brighthouse of $111 million in other assets, offset by a tax payable of $111 million, of which $68 million was reported in current income tax payable and $43 million was reported in other liabilities. These amounts represent Brighthouse uncertain tax items and audit adjustments while it was a member of the Company's U.S. consolidated tax return.

As part of the tax separation agreement, MetLife, Inc. is liable for the U.S. federal income tax cost of a discrete Separation-related tax charge incurred by Brighthouse. The income tax charge arises from the recapture of certain tax benefits incurred prior to Separation, and is caused by the deconsolidation of Brighthouse from the MetLife tax group at Separation. As a result, MetLife, Inc. recorded a decrease to current income tax recoverable and a charge to provision for income tax expense (benefit) of $1,093 million for the year ended December 31, 2017, which was reported in discontinued operations for the Company.

Additionally, MetLife, Inc. has the right to receive future payments from Brighthouse for a tax asset that Brighthouse received as a result of restructuring prior to the Separation. Included in other assets is a receivable from Brighthouse of $330 million at both December 31, 2019 and 2018, related to these future payments.

Ongoing Transactions with Brighthouse

The Company considered all of its continuing involvement with Brighthouse in determining whether to deconsolidate and present Brighthouse results as discontinued operations, including the agreements described above and the ongoing transactions described below.

The Company entered into reinsurance, committed facility, structured settlement, and contract administrative services transactions with Brighthouse in the normal course of business and such transactions will continue based upon business needs. In addition, prior to and in connection with the Separation, the Company entered into various other agreements, including investment management, transition services and employee matters agreements, with Brighthouse for services necessary for both the Company and Brighthouse to conduct their activities. Intercompany transactions prior to the Separation between the Company and Brighthouse are eliminated and excluded from the consolidated statements of operations and consolidated balance sheets. Transactions between the Company and Brighthouse that continue after the Separation are included on the Company's consolidated statements of operations and consolidated balance sheets.

In June 2018, the Company sold FVO Brighthouse Common Stock and as a result the Company no longer considers Brighthouse to be a related party. The Company considers the reinsurance transactions and the transition service agreement discussed below to have a significant continuing impact on its consolidated statements of operations and has updated these disclosures through December 31, 2019.

3. Dispositions (continued)

Reinsurance

The Company entered into reinsurance transactions with Brighthouse in the normal course of business and such transactions will continue based upon business needs. Information regarding the significant effects of reinsurance transactions with Brighthouse was as follows:

	Included on Consolidated Statements of Operations			Excluded from Consolidated Statements of Operations
	Years Ended December 31,			Years Ended December 31,
	2019	2018	2017 (1)	2017 (2)
	(In millions)			
Premiums				
Reinsurance assumed	$ 387	$ 401	$ 183	$ 248
Reinsurance ceded	(8)	(13)	(4)	(7)
Net premiums	$ 379	$ 388	$ 179	$ 241
Universal life and investment-type product policy fees				
Reinsurance assumed	$ (16)	$ 7	$ (4)	$ (6)
Reinsurance ceded	(52)	(96)	(44)	(55)
Net universal life and investment-type product policy fees	$ (68)	$ (89)	$ (48)	$ (61)
Policyholder benefits and claims				
Reinsurance assumed	$ 323	$ 328	$ 150	$ 196
Reinsurance ceded	(46)	(36)	(22)	(16)
Net policyholder benefits and claims	$ 277	$ 292	$ 128	$ 180
Interest credited to policyholder account balances				
Reinsurance assumed	$ 13	$ 14	$ 6	$ 10
Reinsurance ceded	(75)	(71)	(30)	(42)
Net interest credited to policyholder account balances	$ (62)	$ (57)	$ (24)	$ (32)
Other expenses				
Reinsurance assumed	$ 96	$ 105	$ 39	$ 10
Reinsurance ceded	(17)	(29)	7	(28)
Net other expenses	$ 79	$ 76	$ 46	$ (18)

(1) Includes transactions after the Separation.

(2) Includes transactions prior to the Separation.

Transition Services

In connection with the Separation, the Company entered into a transition services agreement with Brighthouse for services necessary for Brighthouse to conduct its activities. The services are expected to continue up to 36 months after the date of Separation, with certain services potentially to be made available for several years thereafter. For the years ended December 31, 2019 and 2018, the Company recognized $246 million and $305 million in other revenues for services provided under such transition services agreement. After the Separation, for the year ended December 31, 2017, the Company recognized $140 million as a reduction to other expenses for transitional services provided under the agreement. Prior to the Separation, for the year ended December 31, 2017, the Company charged Brighthouse $191 million for services provided under the agreement, which were intercompany transactions and eliminated and excluded from the consolidated statements of operations.

3. Dispositions (continued)

Discontinued Operations

The following table presents the amounts related to the operations and loss on disposal of Brighthouse that have been reflected in discontinued operations:

	For the Year Ended December 31, 2017 (In millions)
Revenues	
Premiums	$ 820
Universal life and investment-type product policy fees	2,201
Net investment income	1,783
Other revenues	150
Total net investment gains (losses)	(48)
Net derivative gains (losses)	(1,061)
Total revenues	3,845
Expenses	
Policyholder benefits and claims	2,217
Interest credited to policyholder account balances	620
Policyholder dividends	16
Other expenses	853
Total expenses	3,706
Income (loss) from discontinued operations before provision for income tax and loss on disposal of discontinued operations	139
Provision for income tax expense (benefit)	(46)
Income (loss) from discontinued operations before loss on disposal of discontinued operations, net of income tax	185
Transaction costs associated with the Separation, net of income tax	(216)
Tax charges associated with the Separation	(955)
Income (loss) on disposal of discontinued operations, net of income tax	(1,171)
Income (loss) from discontinued operations, net of income tax	$ (986)

3. Dispositions (continued)

In the consolidated statements of cash flows, the cash flows from discontinued operations are not separately classified. The following table presents selected financial information regarding cash flows of the discontinued operations.

	For the Year Ended December 31,
	2017
	(In millions)
Net cash provided by (used in):	
Operating activities	$ 1,329
Investing activities	$ (2,732)
Financing activities	$ (367)

4. Insurance

Insurance Liabilities

Insurance liabilities are comprised of future policy benefits, policyholder account balances and other policy-related balances. Information regarding insurance liabilities by segment, as well as Corporate & Other, was as follows at:

	December 31,	
	2019	2018
	(In millions)	
U.S.	$ 150,327	$ 141,641
Asia	118,027	108,456
Latin America	15,911	16,131
EMEA	16,951	17,069
MetLife Holdings	101,945	102,371
Corporate & Other	1,546	1,334
Total	$ 404,707	$ 387,002

4. Insurance (continued)

Future policy benefits are measured as follows:

Product Type:	Measurement Assumptions:
Participating life	Aggregate of (i) net level premium reserves for death and endowment policy benefits (calculated based upon the non-forfeiture interest rate, ranging from 3% to 7% for U.S. businesses and less than 1% to 13% for non-U.S. businesses and mortality rates guaranteed in calculating the cash surrender values described in such contracts); and (ii) the liability for terminal dividends for U.S. businesses.
Nonparticipating life	Aggregate of the present value of future expected benefit payments and related expenses less the present value of future expected net premiums. Assumptions as to mortality and persistency are based upon the Company's experience when the basis of the liability is established. Interest rate assumptions for the aggregate future policy benefit liabilities range from 2% to 11% for U.S. businesses and less than 1% to 13% for non-U.S. businesses.
Individual and group traditional fixed annuities after annuitization	Present value of future expected payments. Interest rate assumptions used in establishing such liabilities range from less than 1% to 11% for U.S. businesses and less than 1% to 11% for non-U.S. businesses.
Non-medical health insurance	The net level premium method and assumptions as to future morbidity, withdrawals and interest, which provide a margin for adverse deviation. Interest rate assumptions used in establishing such liabilities range from 1% to 7% (primarily related to U.S. businesses).
Disabled lives	Present value of benefits method and experience assumptions as to claim terminations, expenses and interest. Interest rate assumptions used in establishing such liabilities range from 2% to 8% for U.S. businesses and less than 1% to 9% for non-U.S. businesses.
Property and casualty insurance	The amount estimated for claims that have been reported but not settled and claims IBNR are based upon the Company's historical experience and other actuarial assumptions that consider the effects of current developments, anticipated trends and risk management programs, reduced for anticipated salvage and subrogation.

Participating business represented 3% of the Company's life insurance in-force at both December 31, 2019 and 2018. Participating policies represented 15%, 14% and 15% of gross traditional life insurance premiums for the years ended December 31, 2019, 2018 and 2017, respectively.

Policyholder account balances are equal to: (i) policy account values, which consist of an accumulation of gross premium payments and investment performance; (ii) credited interest, ranging from less than 1% to 8% for U.S. businesses and less than 1% to 17% for non-U.S. businesses, less expenses, mortality charges and withdrawals; and (iii) fair value adjustments relating to business combinations.

4. Insurance (continued)

Guarantees

The Company issues directly and assumes through reinsurance variable annuity products with guaranteed minimum benefits. GMABs, the non-life contingent portion of GMWBs and certain non-life contingent portions of GMIBs are accounted for as embedded derivatives in policyholder account balances and are further discussed in Note 9. Guarantees accounted for as insurance liabilities include:

Guarantee:		Measurement Assumptions:
GMDBs	• A return of purchase payment upon death even if the account value is reduced to zero. • An enhanced death benefit may be available for an additional fee.	• Present value of expected death benefits in excess of the projected account balance recognizing the excess ratably over the accumulation period based on the present value of total expected assessments. • Assumptions are consistent with those used for amortizing DAC, and are thus subject to the same variability and risk. • Investment performance and volatility assumptions are consistent with the historical experience of the appropriate underlying equity index, such as the S&P 500 Index. • Benefit assumptions are based on the average benefits payable over a range of scenarios.
GMIBs	• After a specified period of time determined at the time of issuance of the variable annuity contract, a minimum accumulation of purchase payments, even if the account value is reduced to zero, that can be annuitized to receive a monthly income stream that is not less than a specified amount. • Certain contracts also provide for a guaranteed lump sum return of purchase premium in lieu of the annuitization benefit.	• Present value of expected income benefits in excess of the projected account balance at any future date of annuitization and recognizing the excess ratably over the accumulation period based on present value of total expected assessments. • Assumptions are consistent with those used for estimating GMDB liabilities. • Calculation incorporates an assumption for the percentage of the potential annuitizations that may be elected by the contractholder.
GMWBs	• A return of purchase payment via partial withdrawals, even if the account value is reduced to zero, provided that cumulative withdrawals in a contract year do not exceed a certain limit. • Certain contracts include guaranteed withdrawals that are life contingent.	• Expected value of the life contingent payments and expected assessments using assumptions consistent with those used for estimating the GMDB liabilities.

The Company also issues other annuity contracts that apply a lower rate on funds deposited if the contractholder elects to surrender the contract for cash and a higher rate if the contractholder elects to annuitize. These guarantees include benefits that are payable in the event of death, maturity or at annuitization. Certain other annuity contracts contain guaranteed annuitization benefits that may be above what would be provided by the current account value of the contract. Additionally, the Company issues universal and variable life contracts where the Company contractually guarantees to the contractholder a secondary guarantee or a guaranteed paid-up benefit.

4. Insurance (continued)

Information regarding the liabilities for guarantees (excluding base policy liabilities and embedded derivatives) relating to annuity and universal and variable life contracts was as follows:

	Annuity Contracts		Universal and Variable Life Contracts		
	GMDBs and GMWBs	GMIBs	Secondary Guarantees	Paid-Up Guarantees	Total
			(In millions)		
Direct and Assumed:					
Balance at January 1, 2017	$ 451	$ 601	$ 2,989	$ 331	$ 4,372
Incurred guaranteed benefits (1)	91	121	233	16	461
Paid guaranteed benefits	(14)	(2)	(34)	—	(50)
Balance at December 31, 2017	528	720	3,188	347	4,783
Incurred guaranteed benefits (1)	(78)	178	291	12	403
Paid guaranteed benefits	(22)	—	(37)	—	(59)
Balance at December 31, 2018	428	898	3,442	359	5,127
Incurred guaranteed benefits (1)	62	(3)	358	68	485
Paid guaranteed benefits	(25)	(1)	(38)	—	(64)
Balance at December 31, 2019	$ 465	$ 894	$ 3,762	$ 427	$ 5,548
Ceded:					
Balance at January 1, 2017	$ 24	$ 5	$ 191	$ 231	$ 451
Incurred guaranteed benefits	4	1	50	11	66
Paid guaranteed benefits	6	—	—	—	6
Balance at December 31, 2017	34	6	241	242	523
Incurred guaranteed benefits	(38)	4	28	9	3
Paid guaranteed benefits	4	—	—	—	4
Balance at December 31, 2018	—	10	269	251	530
Incurred guaranteed benefits	(4)	—	80	30	106
Paid guaranteed benefits	4	—	—	—	4
Balance at December 31, 2019	$ —	$ 10	$ 349	$ 281	$ 640
Net:					
Balance at January 1, 2017	$ 427	$ 596	$ 2,798	$ 100	$ 3,921
Incurred guaranteed benefits	87	120	183	5	395
Paid guaranteed benefits	(20)	(2)	(34)	—	(56)
Balance at December 31, 2017	494	714	2,947	105	4,260
Incurred guaranteed benefits	(40)	174	263	3	400
Paid guaranteed benefits	(26)	—	(37)	—	(63)
Balance at December 31, 2018	428	888	3,173	108	4,597
Incurred guaranteed benefits	66	(3)	278	38	379
Paid guaranteed benefits	(29)	(1)	(38)	—	(68)
Balance at December 31, 2019	$ 465	$ 884	$ 3,413	$ 146	$ 4,908

(1) Secondary guarantees include the effects of foreign currency translation of $23 million, $62 million and $78 million at December 31, 2019, 2018 and 2017, respectively.

4. Insurance (continued)

Information regarding the Company's guarantee exposure, which includes direct and assumed business, but excludes offsets from hedging or ceded reinsurance, if any, was as follows at:

	December 31,			
	2019		2018	
	In the Event of Death	At Annuitization	In the Event of Death (8)	At Annuitization (8)
	(Dollars in millions)			
Annuity Contracts:				
Variable Annuity Guarantees:				
Total account value (1), (2), (3)	$ 64,506	$ 24,036	$ 63,381	$ 23,174
Separate account value (1)	$ 41,305	$ 22,291	$ 38,888	$ 21,385
Net amount at risk (2)	$ 1,572 (4)	$ 584 (5)	$ 3,197 (4)	$ 511 (5)
Average attained age of contractholders	67 years	65 years	66 years	64 years
Other Annuity Guarantees:				
Total account value (1), (3)	N/A	$ 5,671	N/A	$ 5,787
Net amount at risk	N/A	$ 408 (6)	N/A	$ 549 (6)
Average attained age of contractholders	N/A	51 years	N/A	50 years

	December 31,			
	2019		2018	
	Secondary Guarantees	Paid-Up Guarantees	Secondary Guarantees (8)	Paid-Up Guarantees
	(Dollars in millions)			
Universal and Variable Life Contracts:				
Total account value (1), (3)	$ 11,937	$ 2,940	$ 11,205	$ 3,070
Net amount at risk (7)	$ 86,221	$ 14,500	$ 93,028	$ 15,539
Average attained age of policyholders	53 years	65 years	52 years	64 years

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(1) The Company's annuity and life contracts with guarantees may offer more than one type of guarantee in each contract. Therefore, the amounts listed above may not be mutually exclusive.

(2) Includes amounts, which are not reported on the consolidated balance sheets, from assumed variable annuity guarantees from the Company's former operating joint venture in Japan.

(3) Includes the contractholder's investments in the general account and separate account, if applicable.

(4) Defined as the death benefit less the total account value, as of the balance sheet date. It represents the amount of the claim that the Company would incur if death claims were filed on all contracts on the balance sheet date and includes any additional contractual claims associated with riders purchased to assist with covering income taxes payable upon death.

(5) Defined as the amount (if any) that would be required to be added to the total account value to purchase a lifetime income stream, based on current annuity rates, equal to the minimum amount provided under the guaranteed benefit. This amount represents the Company's potential economic exposure to such guarantees in the event all contractholders were to annuitize on the balance sheet date, even though the contracts contain terms that allow annuitization of the guaranteed amount only after the 10th anniversary of the contract, which not all contractholders have achieved.

(6) Defined as either the excess of the upper tier, adjusted for a profit margin, less the lower tier, as of the balance sheet date or the amount (if any) that would be required to be added to the total account value to purchase a lifetime income stream, based on current annuity rates, equal to the minimum amount provided under the guaranteed benefit. These amounts represent the Company's potential economic exposure to such guarantees in the event all contractholders were to annuitize on the balance sheet date.

4. Insurance (continued)

(7) Defined as the guarantee amount less the account value, as of the balance sheet date. It represents the amount of the claim that the Company would incur if death claims were filed on all contracts on the balance sheet date.

(8) Certain of the Company's guarantee exposure amounts at December 31, 2018 have been revised to conform to the 2019 presentation, which includes certain contracts with guarantees that were previously excluded. They include the following increases from the amounts previously reported: (i) variable annuity guarantees in the event of death: $7.1 billion from $56.2 billion for total account value, $1.5 billion from $37.3 billion for separate account value and $429 million from $2.8 billion for net amount at risk; (ii) variable annuity guarantees at annuitization: $1.5 billion from $21.6 billion for total account value, $1.5 billion from $19.8 billion for separate account value and $28 million from $483 million for net amount at risk; (iii) other annuity guarantees: $4.5 billion from $1.3 billion for total account value and $60 million from $489 million for net amount at risk; and (iv) universal and variable life contract secondary guarantees: $2.3 billion from $8.9 billion for total account value and $28.9 billion from $64.2 billion for net amount at risk.

Additionally, the average attained age of contractholders at annuitization for variable annuity guarantees decreased by one year from 65 years and the average attained age of policyholders with universal and variable life contract secondary guarantees decreased by five years from 57 years.

Guarantees — Separate Accounts

Account balances of contracts with guarantees were invested in separate account asset classes as follows at:

	December 31,	
	2019	2018 (1)
	(In millions)	
Fund Groupings:		
Equity	$ 25,097	$ 22,450
Balanced	19,014	18,332
Bond	5,565	5,537
Money Market	117	134
Total	$ 49,793	$ 46,453

(1) In connection with the Company's guarantee exposure amount revisions discussed above, the account balances of contracts with guarantees invested in separate account asset classes at December 31, 2018 have been revised to conform to the 2019 presentation. The total increase to the fund grouping amounts previously reported is $4.2 billion, which primarily includes asset class changes of $2.9 billion for Equity and $1.3 billion for Balanced.

Obligations Under Funding Agreements

The Company issues fixed and floating rate funding agreements, which are denominated in either U.S. dollars or foreign currencies, to certain unconsolidated special purpose entities that have issued either debt securities or commercial paper for which payment of interest and principal is secured by such funding agreements. For the years ended December 31, 2019, 2018 and 2017, the Company issued $37.3 billion, $41.8 billion and $42.7 billion, respectively, and repaid $36.4 billion, $43.7 billion and $41.4 billion, respectively, of such funding agreements. At December 31, 2019 and 2018, liabilities for funding agreements outstanding, which are included in policyholder account balances, were $34.6 billion and $32.3 billion, respectively.

Certain of the Company's subsidiaries are members of regional FHLBs. Holdings of common stock of regional FHLBs, included in other invested assets, were as follows at:

	December 31,	
	2019	2018
	(In millions)	
FHLB of New York	$ 737	$ 724
FHLB of Des Moines	$ 4	$ 17
FHLB of Pittsburgh	$ 35	$ 19

4. Insurance (continued)

Certain U.S. subsidiaries have also entered into funding agreements with regional FHLBs and a subsidiary of the Federal Agricultural Mortgage Corporation, a federally chartered instrumentality of the U.S. (“Farmer Mac”). The liability for such funding agreements is included in policyholder account balances. Information related to such funding agreements was as follows at:

	Liability		Collateral	
	December 31,			
	2019	2018	2019	2018
	(In millions)			
FHLB of New York (1)	$ 14,445	$ 14,245	$ 16,570 (2)	$ 16,557 (2)
Farmer Mac (3)	$ 2,550	$ 2,550	$ 2,670	$ 2,639
FHLB of Des Moines (1)	$ 100	$ 425	$ 141 (2)	$ 709 (2)
FHLB of Pittsburgh (1)	$ 775	$ 450	$ 895 (2)	$ 590 (2)

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(1) Represents funding agreements issued to the applicable regional FHLB in exchange for cash and for which such regional FHLB has been granted a lien on certain assets, some of which are in the custody of such regional FHLB, including residential mortgage-backed securities (“RMBS”), to collateralize obligations under such funding agreements. The applicable subsidiary of the Company is permitted to withdraw any portion of the collateral in the custody of such regional FHLB as long as there is no event of default and the remaining qualified collateral is sufficient to satisfy the collateral maintenance level. Upon any event of default by such subsidiary, the applicable regional FHLB’s recovery on the collateral is limited to the amount of such subsidiary’s liability to such regional FHLB.

(2) Advances are collateralized by mortgage-backed securities. The amount of collateral presented is at estimated fair value.

(3) Represents funding agreements issued to a subsidiary of Farmer Mac. The obligations under these funding agreements are secured by a pledge of certain eligible agricultural mortgage loans and may, under certain circumstances, be secured by other qualified collateral. The amount of collateral presented is at carrying value.

Liabilities for Unpaid Claims and Claim Expenses

The following is information about incurred and paid claims development by segment at December 31, 2019. Such amounts are presented net of reinsurance, and are not discounted. The tables present claims development and cumulative claim payments by incurral year. The development tables are only presented for significant short-duration product liabilities within each segment. Where practical, up to 10 years of history has been provided. In order to eliminate potential fluctuations related to foreign exchange rates, liabilities and payments denominated in a foreign currency have been translated using the 2019 year end spot rates for all periods presented. The information about incurred and paid claims development prior to 2019 is presented as supplementary information.

4. Insurance (continued)

U.S.

Group Life - Term

Incurral Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance									At December 31, 2019	
	For the Years Ended December 31, (Unaudited)										
	(Dollars in millions)										
2011	$ 6,318	$ 6,290	$ 6,293	$ 6,269	$ 6,287	$ 6,295	$ 6,294	$ 6,295	$ 6,297	$ 1	207,857
2012		6,503	6,579	6,569	6,546	6,568	6,569	6,569	6,572	2	209,500
2013			6,637	6,713	6,719	6,720	6,730	6,720	6,723	2	212,019
2014				6,986	6,919	6,913	6,910	6,914	6,919	4	214,563
2015					7,040	7,015	7,014	7,021	7,024	5	216,429
2016						7,125	7,085	7,095	7,104	8	215,108
2017							7,432	7,418	7,425	15	253,613
2018								7,757	7,655	37	235,820
2019									7,935	848	185,891
Total									63,654		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance									(61,612)		
All outstanding liabilities for incurral years prior to 2011, net of reinsurance									15		
Total unpaid claims and claim adjustment expenses, net of reinsurance									$ 2,057		

Incurral Year	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance								
	For the Years Ended December 31, (Unaudited)								
	(In millions)								
2011	$ 4,982	$ 6,194	$ 6,239	$ 6,256	$ 6,281	$ 6,290	$ 6,292	$ 6,295	$ 6,296
2012		5,132	6,472	6,518	6,532	6,558	6,565	6,566	6,569
2013			5,216	6,614	6,664	6,678	6,711	6,715	6,720
2014				5,428	6,809	6,858	6,869	6,902	6,912
2015					5,524	6,913	6,958	6,974	7,008
2016						5,582	6,980	7,034	7,053
2017							5,761	7,292	7,355
2018								6,008	7,521
2019									6,178
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance									$ 61,612

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration at December 31, 2019:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance								
Years	1	2	3	4	5	6	7	8	9
Group Life - Term	78.3%	20.0%	0.7%	0.2%	0.4%	0.1%	—%	—%	—%

4. Insurance (continued)

Group Long-Term Disability

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance									At December 31, 2019	
	For the Years Ended December 31,										
	(Unaudited)										
Incurral Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)										
2011	$ 955	$ 916	$ 894	$ 914	$ 924	$ 923	$ 918	$ 917	$ 914	$ —	21,644
2012		966	979	980	1,014	1,034	1,037	1,021	1,015	—	20,085
2013			1,008	1,027	1,032	1,049	1,070	1,069	1,044	—	21,137
2014				1,076	1,077	1,079	1,101	1,109	1,098	—	22,851
2015					1,082	1,105	1,093	1,100	1,087	—	21,203
2016						1,131	1,139	1,159	1,162	—	17,958
2017							1,244	1,202	1,203	12	16,266
2018								1,240	1,175	35	14,869
2019									1,277	657	8,350
Total									9,975		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance									(4,713)		
All outstanding liabilities for incurral years prior to 2011, net of reinsurance									1,829		
Total unpaid claims and claim adjustment expenses, net of reinsurance									$ 7,091		

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance								
	For the Years Ended December 31,								
	(Unaudited)								
Incurral Year	2011	2012	2013	2014	2015	2016	2017	2018	2019
	(In millions)								
2011	$ 44	$ 217	$ 337	$ 411	$ 478	$ 537	$ 588	$ 635	$ 670
2012		43	229	365	453	524	591	648	694
2013			43	234	382	475	551	622	676
2014				51	266	428	526	609	677
2015					50	264	427	524	601
2016						49	267	433	548
2017							56	290	476
2018								54	314
2019									57
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance									$ 4,713

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration at December 31, 2019:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance								
Years	1	2	3	4	5	6	7	8	9
Group Long-Term Disability	4.5%	19.4%	14.3%	8.9%	7.2%	6.5%	5.5%	4.8%	4.0%

4. Insurance (continued)

Significant Methodologies and Assumptions

Group Life - Term and Group Long-Term Disability incurred but not paid ("IBNP") liabilities are developed using a combination of loss ratio and development methods. Claims in the course of settlement are then subtracted from the IBNP liabilities, resulting in the IBNR liabilities. The loss ratio method is used in the period in which the claims are neither sufficient nor credible. In developing the loss ratios, any material rate increases that could change the underlying premium without affecting the estimated incurred losses are taken into account. For periods where sufficient and credible claim data exists, the development method is used based on the claim triangles which categorize claims according to both the period in which they were incurred and the period in which they were paid, adjudicated or reported. The end result is a triangle of known data that is used to develop known completion ratios and factors. Claims paid are then subtracted from the estimated ultimate incurred claims to calculate the IBNP liability.

An expense liability is held for the future expenses associated with the payment of incurred but not yet paid claims (IBNR and pending). This is expressed as a percentage of the underlying claims liability and is based on past experience and the anticipated future expense structure.

For Group Life - Term and Group Long-Term Disability, first year incurred claims and allocated loss adjustment expenses increased in 2019 compared to the 2018 incurral year due to the growth in the size of the business.

There were no significant changes in methodologies for the year ended December 31, 2019. The assumptions used in calculating the unpaid claims and claim adjustment expenses for Group Life - Term and Group Long-Term Disability are updated annually to reflect emerging trends in claim experience.

No additional premiums or return premiums have been accrued as a result of the prior year development.

Liabilities for Group Life - Term unpaid claims and claim adjustment expenses are not discounted.

The liabilities for Group Long-Term Disability unpaid claims and claim adjustment expenses were $6.0 billion at both December 31, 2019 and 2018. Using interest rates ranging from 3% to 8%, based on the incurral year, the total discount applied to these liabilities was $1.2 billion and $1.3 billion at December 31, 2019 and 2018, respectively. The amount of interest accretion recognized was $470 million, $509 million and $510 million for the years ended December 31, 2019, 2018 and 2017, respectively. These amounts were reflected in policyholder benefits and claims.

For Group Life - Term, claims were based upon individual death claims. For Group Long-Term Disability, claim frequency was determined by the number of reported claims as identified by a unique claim number assigned to individual claimants. Claim counts initially include claims that do not ultimately result in a liability. These claims are omitted from the claim counts once it is determined that there is no liability.

The Group Long-Term Disability IBNR, included in the development tables above, was developed using discounted cash flows, and is presented on a discounted basis.

4. Insurance (continued)

Property & Casualty - Auto Liability

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance										At December 31, 2019	
	For the Years Ended December 31,											
	(Unaudited)											
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2010	$ 863	$ 873	$ 853	$ 847	$ 833	$ 826	$ 825	$ 822	$ 823	$ 822	$ —	204,497
2011		863	876	869	855	846	843	843	842	841	1	204,972
2012			882	881	869	851	846	847	846	846	1	199,357
2013				911	900	882	878	876	876	874	1	204,372
2014					897	910	913	910	911	912	2	207,630
2015						975	984	979	980	983	5	212,806
2016							1,012	1,002	997	999	11	211,041
2017								957	960	987	33	191,978
2018									938	964	78	180,220
2019										970	203	163,655
Total										9,198		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(8,062)		
All outstanding liabilities for incurral years prior to 2010, net of reinsurance										26		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 1,162		

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance									
	For the Years Ended December 31,									
	(Unaudited)									
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	(In millions)									
2010	$ 319	$ 572	$ 695	$ 762	$ 796	$ 810	$ 816	$ 818	$ 820	$ 821
2011		324	590	711	777	810	825	831	835	837
2012			333	600	715	783	815	831	840	843
2013				346	618	743	809	843	859	869
2014					352	648	777	844	884	900
2015						384	691	822	903	956
2016							396	702	842	932
2017								379	686	838
2018									371	687
2019										379
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 8,062

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration at December 31, 2019:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance									
Years	1	2	3	4	5	6	7	8	9	10
Auto Liability	38.6%	31.5%	14.3%	8.0%	4.2%	1.8%	0.9%	0.3%	0.3%	0.1%

4. Insurance (continued)

Property & Casualty - Home

Incurral Year	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance — For the Years Ended December 31, (Unaudited) 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	At December 31, 2019 — Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2010	$ 573	$ 589	$ 587	$ 584	$ 582	$ 581	$ 580	$ 579	$ 579	$ 579	$ —	115,522
2011		891	868	843	840	835	835	834	833	833	—	166,467
2012			714	713	703	698	696	694	693	692	—	146,559
2013				654	652	635	635	634	632	632	1	107,562
2014					707	702	704	705	701	699	1	113,679
2015						759	753	752	746	742	1	107,259
2016							740	743	743	736	3	107,271
2017								747	763	761	8	115,610
2018									671	658	9	98,754
2019										649	67	80,133
Total										6,981		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(6,753)		
All outstanding liabilities for incurral years prior to 2010, net of reinsurance										1		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 229		

Incurral Year	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance — For the Years Ended December 31, (Unaudited) 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	(In millions)									
2010	$ 436	$ 546	$ 562	$ 571	$ 574	$ 577	$ 578	$ 578	$ 579	$ 579
2011		690	804	819	825	827	830	832	833	833
2012			559	668	681	687	689	690	690	691
2013				505	604	618	626	628	629	630
2014					574	670	685	692	695	696
2015						603	717	731	736	739
2016							593	704	720	727
2017								610	727	742
2018									529	629
2019										487
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 6,753

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration at December 31, 2019:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance									
Years	1	2	3	4	5	6	7	8	9	10
Home	79.8%	15.4%	2.1%	1.0%	0.3%	0.3%	0.2%	0.1%	0.1%	—%

4. Insurance (continued)

Significant Methodologies and Assumptions

The liability for unpaid claim and claim adjustment expenses for the Property & Casualty business is determined by examining the historical claims and allocated claim adjustment expenses data. This data, which is gross of salvage and subrogation, is classified by incurral year and coverage and includes paid claims data and reported liabilities. For homeowners and auto liability injury claims, the reported liabilities are set by the Company's claims adjusters based on the individual case, and a supplemental liability is added based on the historical development of reported claims. These supplemental liabilities are estimated by coverage based on adjusted report year data triangles to determine the estimated ultimate claim liability. Adjustments are made for settlement rates and average case liabilities. For auto non-injury claims, the Company holds an average statistical liability for every reported claim. This statistical liability is based on an estimated average payment that varies by coverage, report year and state. These average estimated payments are updated monthly.

For all property and casualty coverages, many actuarial methods such as adjusted loss development (adjusted for settlement rates and average case liabilities) and loss ratio methods are employed to develop a best estimate of the IBNR for each coverage type. Similar actuarial methods are used to determine the best estimate of the expected salvage and subrogation; methods that look at recoveries by age and ratios of recoveries to paid loss are compared for each coverage. A liability for unpaid allocated claim adjustment expenses is held for the future claim adjustment costs associated with the payment of incurred but not yet paid claims. This liability is calculated as a percentage of the underlying unpaid claims liability. The percentage is based on historical ratios of essential claim department expenses compared with paid losses.

There were no significant changes in methodologies or assumptions for the year ended December 31, 2019. The assumptions used in calculating the unpaid claims and claim adjustment expenses for Property & Casualty - Auto Liability and Property & Casualty - Home are updated annually to reflect emerging trends in claim experience.

No additional premiums or return premiums have been accrued as a result of the prior year development.

Liabilities for unpaid claims and claim adjustment expenses were not discounted.

The cumulative number of reported claims for auto liability coverages are counted by individual coverages (i.e. bodily injury and property damage) and, if multiple occupants are injured, then each injury is counted as a separate claim. For home coverages, each exposure is counted separately, so a house fire would, for example, have separate claim counts for the building, the contents, and additional living expenses. Claim counts include claims that do not ultimately result in a liability. Any liability established upon receipt of these claims would subsequently be reversed.

MetLife, Inc.

Notes to the Consolidated Financial Statements — (continued)

4. Insurance (continued)

Asia

Group Disability & Group Life

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance										At December 31, 2019	
	For the Years Ended December 31,											
	(Unaudited)											
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2010	$ 73	$ 70	$ 75	$ 96	$ 96	$ 93	$ 121	$ 130	$ 122	$ 118	$ 2	2,812
2011		58	61	79	80	84	112	119	116	109	5	3,021
2012			88	94	92	106	107	110	120	114	9	4,536
2013				133	135	156	151	150	159	159	15	5,210
2014					267	250	230	230	241	237	31	6,167
2015						252	240	243	237	247	37	5,970
2016							210	214	202	215	42	3,895
2017								273	253	261	56	4,056
2018									332	304	96	3,730
2019										359	185	2,390
Total										2,123		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(1,506)		
All outstanding liabilities for incurral years prior to 2010, net of reinsurance										10		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 627		

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance									
	For the Years Ended December 31,									
	(Unaudited)									
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	(In millions)									
2010	$ 18	$ 36	$ 48	$ 58	$ 71	$ 80	$ 102	$ 108	$ 113	$ 116
2011		11	36	49	60	73	92	98	100	104
2012			27	58	77	89	96	101	102	105
2013				39	89	109	123	134	147	144
2014					62	130	161	182	204	205
2015						73	139	173	187	212
2016							59	122	138	173
2017								79	144	190
2018									87	160
2019										97
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 1,506

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration at December 31, 2019:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance									
Years	1	2	3	4	5	6	7	8	9	10
Group Disability & Group Life	24.4%	25.3%	13.0%	9.8%	9.1%	7.5%	6.0%	3.2%	3.7%	3.9%

4. Insurance (continued)

Significant Methodologies and Assumptions

This business line consists of employer sponsored and industry sponsored Group Life and Group Disability risks.

For Group Life, the IBNR liability is determined by using the Bornhuetter-Ferguson Method, with factors derived by examining the experience of historical claims. A pending liability is also calculated for claims that have been reported but have not been paid. A claim eligibility ratio based on past experience is applied to the face amount of individual claims.

For Group Disability, the IBNR liability is calculated by applying a percentage to premiums in-force based on the expected delay as evidenced by the experience in the portfolio. The IBNR liability is then allocated back into different incurral years based on historical run-off patterns. As the benefit for this class of business is a regular series of payments, an additional reserve is required for the liability for ongoing benefit payments - claims in course of payment ("CICP"). The assumptions employed in the calculation of the CICP are adjusted for the Company's own experience.

An expense liability is held for the future expenses associated with the payment of incurred but not yet paid claims. This is expressed as a percentage of the underlying claims liability and is based on past experience and the future expense structure.

There were no significant changes in methodologies for the year ended December 31, 2019. The assumptions used in calculating the unpaid claims and claim adjustment expenses for Group Disability and Group Life are updated annually to reflect emerging trends in claim experience.

No additional premiums or return premiums have been accrued as a result of the prior year development.

The liabilities for unpaid claims and claim adjustment expenses were $814 million and $733 million at December 31, 2019 and 2018, respectively. These amounts were discounted using interest rates ranging from 1% to 7%, based on the incurral year. The total discount applied to these liabilities was $52 million and $61 million at December 31, 2019 and 2018, respectively. The amount of interest accretion recognized was $20 million, $19 million and $26 million for the years ended December 31, 2019, 2018 and 2017, respectively. These amounts were reflected in policyholder benefits and claims.

The Company tracks claim frequency by the number of reported claims as identified by a unique claim number assigned to individual claimants. Claim counts include claims that do not ultimately result in a liability. A liability is only established for those claims that are expected to result in a liability, based on historical factors.

4. Insurance (continued)

Latin America

Protection Life

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance										At December 31, 2019	
	For the Years Ended December 31,											
	(Unaudited)											
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2010	$ 259	$ 333	$ 340	$ 341	$ 341	$ 341	$ 341	$ 342	$ 344	$ 344	$ —	34,663
2011		144	222	229	230	230	231	227	230	230	—	28,955
2012			153	208	213	214	215	212	215	216	—	29,014
2013				168	236	243	244	243	246	247	—	33,259
2014					247	376	387	354	358	359	—	41,648
2015						324	463	432	438	438	—	47,505
2016							347	447	459	466	1	41,590
2017								358	350	349	5	33,396
2018									334	324	16	31,302
2019										364	124	24,180
Total										3,337		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(3,030)		
All outstanding liabilities for incurral years prior to 2010, net of reinsurance										10		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 317		

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance									
	For the Years Ended December 31,									
	(Unaudited)									
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	(In millions)									
2010	$ 238	$ 310	$ 317	$ 318	$ 318	$ 318	$ 318	$ 320	$ 321	$ 324
2011		141	218	224	225	225	225	226	227	228
2012			151	205	209	211	211	210	211	213
2013				165	229	234	234	234	236	238
2014					221	330	336	339	343	346
2015						264	372	395	403	410
2016							242	432	452	460
2017								210	318	335
2018									169	287
2019										189
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 3,030

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration at December 31, 2019:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance									
Years	1	2	3	4	5	6	7	8	9	10
Protection Life	60.5%	29.8%	3.1%	0.9%	0.5%	0.3%	0.4%	0.6%	0.5%	1.0%

MetLife, Inc.

Notes to the Consolidated Financial Statements — (continued)

4. Insurance (continued)

Protection Health

	Incurred Claims and Allocated Claim Adjustment Expense, Net of Reinsurance										At December 31, 2019	
	For the Years Ended December 31,											
	(Unaudited)											
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	(Dollars in millions)											
2010	$ 187	$ 208	$ 210	$ 210	$ 211	$ 211	$ 211	$ 215	$ 215	$ 215	$ —	96,784
2011		224	249	251	252	252	252	249	249	249	—	106,631
2012			216	243	245	246	246	244	245	245	—	100,400
2013				235	265	266	267	264	264	264	—	104,234
2014					243	271	273	271	270	270	—	97,755
2015						209	237	239	238	238	—	87,108
2016							274	316	313	313	1	105,877
2017								397	370	370	3	120,142
2018									425	447	6	140,671
2019										142	19	87,541
Total										2,753		
Cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										(2,689)		
All outstanding liabilities for incurral years prior to 2010, net of reinsurance										9		
Total unpaid claims and claim adjustment expenses, net of reinsurance										$ 73		

	Cumulative Paid Claims and Paid Allocated Claim Adjustment Expenses, Net of Reinsurance									
	For the Years Ended December 31,									
	(Unaudited)									
Incurral Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	(In millions)									
2010	$ 187	$ 208	$ 210	$ 210	$ 211	$ 211	$ 211	$ 214	$ 214	$ 215
2011		224	249	251	252	252	252	249	249	249
2012			216	243	245	246	246	245	245	245
2013				235	265	266	267	264	264	264
2014					241	269	271	267	267	267
2015						209	237	236	237	237
2016							258	308	311	312
2017								324	365	367
2018									363	414
2019										119
Total cumulative paid claims and paid allocated claim adjustment expenses, net of reinsurance										$ 2,689

Average Annual Percentage Payout

The following is supplementary information about average historical claims duration at December 31, 2019:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance									
Years	1	2	3	4	5	6	7	8	9	10
Protection Health	86.6%	11.5%	0.6%	—%	(0.1%)	—%	(0.3%)	0.5%	0.1%	—%

4. Insurance (continued)

Significant Methodologies and Assumptions

The Latin America segment establishes liabilities for unpaid losses, which are equal to the accumulation of unpaid reported claims, plus an estimate for claims IBNR.

In general terms, for both the Protection Life and Protection Health products, the methodology for IBNR is the Bornhuetter-Ferguson Method, with factors derived by examining the experience of historical claims. In the more recent incurral months, the credibility is higher on expected loss ratios and lower on claims calculated using the experience-derived factors. The credibility grows for the factors as incurral months become older.

For Protection Health products, claim duration can be very long due to the multiple incidences that may occur over time for a single claim. The number of claims reported per year is based on the original claim occurrence date for each individual claim. Any subsequent claims that are considered part of the original claim occurrence are not counted as a new claim. For Protection Life products, claims are based upon individual death claims.

There were no significant changes in methodologies or assumptions for the year ended December 31, 2019. The assumptions used in calculating the unpaid claims and claim adjustment expenses for Protection Life and Protection Health are updated annually to reflect emerging trends in claim experience.

No additional premiums or return premiums have been accrued as a result of the prior year development.

Liabilities for unpaid claims and claim adjustment expenses were not discounted.

For Protection Life and Protection Health products, claim counts initially include claims that do not ultimately result in a liability. These claims are omitted from the claim counts once it is determined that there is no liability.

4. Insurance (continued)

Reconciliation of the Disclosure of Incurred and Paid Claims Development to the Liability for Unpaid Claims and Claim Adjustment Expenses

The reconciliation of the net incurred and paid claims development tables to the liability for unpaid claims and claims adjustment expenses on the consolidated balance sheet was as follows at:

	December 31, 2019	
	(In millions)	
Short-Duration:		
Unpaid claims and allocated claims adjustment expenses, net of reinsurance:		
U.S.:		
Group Life - Term	$ 2,057	
Group Long-Term Disability	7,091	
Property & Casualty - Auto	1,162	
Property & Casualty - Home	229	
Total		$ 10,539
Asia - Group Disability & Group Life		627
Latin America:		
Protection Life	317	
Protection Health	73	
Total		390
Other insurance lines - all segments combined		2,031
Total unpaid claims and allocated claims adjustment expenses, net of reinsurance		13,587
Reinsurance recoverables on unpaid claims:		
U.S.:		
Group Life - Term	13	
Group Long-Term Disability	133	
Property & Casualty - Auto	68	
Property & Casualty - Home	1	
Total		215
Asia - Group Disability & Group Life		238
Latin America:		
Protection Life	7	
Protection Health	18	
Total		25
Other insurance lines - all segments combined		333
Total reinsurance recoverable on unpaid claims		811
Total unpaid claims and allocated claims adjustment expense		14,398
Unallocated claims adjustment expenses		98
Discounting		(1,285)
Liability for unpaid claims and claim adjustment liabilities - short-duration		13,211
Liability for unpaid claims and claim adjustment liabilities - all long-duration lines		6,005
Total liability for unpaid claims and claim adjustment expense (included in future policy benefits and other policy-related balances)		$ 19,216

4. Insurance (continued)

Rollforward of Claims and Claim Adjustment Expenses

Information regarding the liabilities for unpaid claims and claim adjustment expenses was as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Balance at January 1,	$ 17,788	$ 17,094	$ 16,157
Less: Reinsurance recoverables	2,332	2,198	1,968
Net balance at January 1,	15,456	14,896	14,189
Incurred related to:			
Current year	27,093	24,571	24,370
Prior years (1)	313	454	133
Total incurred	27,406	25,025	24,503
Paid related to:			
Current year	(20,141)	(18,757)	(18,525)
Prior years	(5,882)	(5,708)	(5,271)
Total paid	(26,023)	(24,465)	(23,796)
Net balance at December 31,	16,839	15,456	14,896
Add: Reinsurance recoverables	2,377	2,332	2,198
Balance at December 31,	$ 19,216	$ 17,788	$ 17,094

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(1) For the years ended December 31, 2019, 2018 and 2017, claims and claim adjustment expenses associated with prior years increased due to events incurred in prior years but reported in the current year.

Separate Accounts

Separate account assets and liabilities include two categories of account types: pass-through separate accounts totaling $142.5 billion and $129.2 billion at December 31, 2019 and 2018, respectively, for which the policyholder assumes all investment risk, and separate accounts for which the Company contractually guarantees either a minimum return or account value to the policyholder which totaled $45.9 billion and $46.4 billion at December 31, 2019 and 2018, respectively. The latter category consisted primarily of guaranteed interest contracts (“GICs”). The average interest rate credited on these contracts was 2.92% and 2.60% at December 31, 2019 and 2018, respectively.

For the years ended December 31, 2019, 2018 and 2017, there were no investment gains (losses) on transfers of assets from the general account to the separate accounts.

5. Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles

See Note 1 for a description of capitalized acquisition costs.

Nonparticipating and Non-Dividend-Paying Traditional Contracts

The Company amortizes DAC and VOBA related to these contracts (term insurance, nonparticipating whole life insurance, traditional group life insurance, non-medical health insurance, and accident & health insurance) over the appropriate premium paying period in proportion to the actual and expected future gross premiums that were set at contract issue. The expected premiums are based upon the premium requirement of each policy and assumptions for mortality, morbidity, persistency and investment returns at policy issuance, or policy acquisition (as it relates to VOBA), include provisions for adverse deviation, and are consistent with the assumptions used to calculate future policyholder benefit liabilities. These assumptions are not revised after policy issuance or acquisition unless the DAC or VOBA balance is deemed to be unrecoverable from future expected profits. Absent a premium deficiency, variability in amortization after policy issuance or acquisition is caused only by variability in premium volumes.

Participating, Dividend-Paying Traditional Contracts

The Company amortizes DAC and VOBA related to these contracts over the estimated lives of the contracts in proportion to actual and expected future gross margins. The amortization includes interest based on rates in effect at inception or acquisition of the contracts. The future gross margins are dependent principally on investment returns, policyholder dividend scales, mortality, persistency, expenses to administer the business, creditworthiness of reinsurance counterparties and certain economic variables, such as inflation. For participating contracts within the closed block (dividend-paying traditional contracts) future gross margins are also dependent upon changes in the policyholder dividend obligation. See Note 7. Of these factors, the Company anticipates that investment returns, expenses, persistency and other factor changes, as well as policyholder dividend scales, are reasonably likely to impact significantly the rate of DAC and VOBA amortization. Each reporting period, the Company updates the estimated gross margins with the actual gross margins for that period. When the actual gross margins change from previously estimated gross margins, the cumulative DAC and VOBA amortization is re-estimated and adjusted by a cumulative charge or credit to current operations. When actual gross margins exceed those previously estimated, the DAC and VOBA amortization will increase, resulting in a current period charge to earnings. The opposite result occurs when the actual gross margins are below the previously estimated gross margins. Each reporting period, the Company also updates the actual amount of business in-force, which impacts expected future gross margins. When expected future gross margins are below those previously estimated, the DAC and VOBA amortization will increase, resulting in a current period charge to earnings. The opposite result occurs when the expected future gross margins are above the previously estimated expected future gross margins. Each period, the Company also reviews the estimated gross margins for each block of business to determine the recoverability of DAC and VOBA balances.

Fixed and Variable Universal Life Contracts and Fixed and Variable Deferred Annuity Contracts

The Company amortizes DAC and VOBA related to these contracts over the estimated lives of the contracts in proportion to actual and expected future gross profits. The amortization includes interest based on rates in effect at inception or acquisition of the contracts. The amount of future gross profits is dependent principally upon returns in excess of the amounts credited to policyholders, mortality, persistency, interest crediting rates, expenses to administer the business, creditworthiness of reinsurance counterparties, the effect of any hedges used and certain economic variables, such as inflation. Of these factors, the Company anticipates that investment returns, expenses and persistency are reasonably likely to significantly impact the rate of DAC and VOBA amortization. Each reporting period, the Company updates the estimated gross profits with the actual gross profits for that period. When the actual gross profits change from previously estimated gross profits, the cumulative DAC and VOBA amortization is re-estimated and adjusted by a cumulative charge or credit to current operations. When actual gross profits exceed those previously estimated, the DAC and VOBA amortization will increase, resulting in a current period charge to earnings. The opposite result occurs when the actual gross profits are below the previously estimated gross profits. Each reporting period, the Company also updates the actual amount of business remaining in-force, which impacts expected future gross profits. When expected future gross profits are below those previously estimated, the DAC and VOBA amortization will increase, resulting in a current period charge to earnings. The opposite result occurs when the expected future gross profits are above the previously estimated expected future gross profits. Each period, the Company also reviews the estimated gross profits for each block of business to determine the recoverability of DAC and VOBA balances.

Credit Insurance, Property and Casualty Insurance and Other Short-Duration Contracts

The Company amortizes DAC for these contracts, which is primarily composed of commissions and certain underwriting expenses, in proportion to actual and future earned premium over the applicable contract term.

5. Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles (continued)

Factors Impacting Amortization

Separate account rates of return on variable universal life contracts and variable deferred annuity contracts affect in-force account balances on such contracts each reporting period, which can result in significant fluctuations in amortization of DAC and VOBA. Returns that are higher than the Company's long-term expectation produce higher account balances, which increases the Company's future fee expectations and decreases future benefit payment expectations on minimum death and living benefit guarantees, resulting in higher expected future gross profits. The opposite result occurs when returns are lower than the Company's long-term expectation. The Company's practice to determine the impact of gross profits resulting from returns on separate accounts assumes that long-term appreciation in equity markets is not changed by short-term market fluctuations, but is only changed when sustained interim deviations are expected. The Company monitors these events and only changes the assumption when its long-term expectation changes.

The Company also periodically reviews other long-term assumptions underlying the projections of estimated gross margins and profits. These assumptions primarily relate to investment returns, policyholder dividend scales, interest crediting rates, mortality, persistency, policyholder behavior and expenses to administer business. Management annually updates assumptions used in the calculation of estimated gross margins and profits which may have significantly changed. If the update of assumptions causes expected future gross margins and profits to increase, DAC and VOBA amortization will decrease, resulting in a current period increase to earnings. The opposite result occurs when the assumption update causes expected future gross margins and profits to decrease.

Periodically, the Company modifies product benefits, features, rights or coverages that occur by the exchange of a contract for a new contract, or by amendment, endorsement, or rider to a contract, or by election or coverage within a contract. If such modification, referred to as an internal replacement, substantially changes the contract, the associated DAC or VOBA is written off immediately through income and any new deferrable costs associated with the replacement contract are deferred. If the modification does not substantially change the contract, the DAC or VOBA amortization on the original contract will continue and any acquisition costs associated with the related modification are expensed.

Amortization of DAC and VOBA is attributed to net investment gains (losses) and net derivative gains (losses), and to other expenses for the amount of gross margins or profits originating from transactions other than investment gains and losses. Unrealized investment gains and losses represent the amount of DAC and VOBA that would have been amortized if such gains and losses had been recognized.

5. Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles (continued)

Information regarding DAC and VOBA was as follows:

	Years Ended December 31,		
	2019	2018	2017
	(In millions)		
DAC:			
Balance at January 1,	$ 15,570	$ 14,789	$ 13,830
Capitalizations	3,358	3,254	3,002
Amortization related to:			
Net investment gains (losses) and net derivative gains (losses)	(117)	(109)	60
Other expenses	(2,534)	(2,599)	(2,426)
Total amortization	(2,651)	(2,708)	(2,366)
Unrealized investment gains (losses)	(1,461)	511	(525)
Effect of foreign currency translation and other	(26)	(276)	848
Balance at December 31,	14,790	15,570	14,789
VOBA:			
Balance at January 1,	3,325	3,630	3,760
Amortization related to other expenses	(245)	(267)	(315)
Unrealized investment gains (losses)	(4)	10	(4)
Effect of foreign currency translation and other	(33)	(48)	189
Balance at December 31,	3,043	3,325	3,630
Total DAC and VOBA:			
Balance at December 31,	$ 17,833	$ 18,895	$ 18,419

Information regarding total DAC and VOBA by segment, as well as Corporate & Other, was as follows at:

	December 31,	
	2019	2018
	(In millions)	
U.S.	$ 649	$ 633
Asia	9,764	10,156
Latin America	2,038	1,984
EMEA	1,701	1,622
MetLife Holdings	3,656	4,474
Corporate & Other	25	26
Total	$ 17,833	$ 18,895

5. Deferred Policy Acquisition Costs, Value of Business Acquired and Other Intangibles (continued)

Information regarding other intangibles was as follows:

	Years Ended December 31,		
	2019	2018	2017
	(In millions)		
DSI:			
Balance at January 1,	$ 210	$ 220	$ 241
Capitalization	7	7	16
Amortization	(39)	(33)	(29)
Unrealized investment gains (losses)	(20)	16	(6)
Effect of foreign currency translation	—	—	(2)
Balance at December 31,	$ 158	$ 210	$ 220
VODA and VOCRA:			
Balance at January 1,	$ 384	$ 459	$ 509
Amortization	(42)	(47)	(51)
Effect of foreign currency translation	(7)	(28)	1
Balance at December 31,	$ 335	$ 384	$ 459
Accumulated amortization	$ 434	$ 392	$ 345
Negative VOBA:			
Balance at January 1,	$ 779	$ 827	$ 935
Amortization	(33)	(56)	(140)
Effect of foreign currency translation and other	4	8	32
Balance at December 31,	$ 750	$ 779	$ 827
Accumulated amortization	$ 3,263	$ 3,230	$ 3,174

The estimated future amortization expense (credit) to be reported in other expenses for the next five years was as follows:

	VOBA	VODA and VOCRA	Negative VOBA
		(In millions)	
2020	$ 238	$ 38	$ (41)
2021	$ 219	$ 35	$ (39)
2022	$ 208	$ 31	$ (37)
2023	$ 196	$ 29	$ (36)
2024	$ 187	$ 26	$ (34)

6. Reinsurance

The Company enters into reinsurance agreements primarily as a purchaser of reinsurance for its various insurance products and also as a provider of reinsurance for some insurance products issued by third parties. The Company participates in reinsurance activities in order to limit losses, minimize exposure to significant risks and provide additional capacity for future growth.

Under the terms of the reinsurance agreements, the reinsurer agrees to reimburse the Company for the ceded amount in the event a claim is paid. Cessions under reinsurance agreements do not discharge the Company's obligation as the primary insurer. In the event that reinsurers do not meet their obligations under the terms of the reinsurance agreements, reinsurance recoverable balances could become uncollectible.

6. Reinsurance (continued)

Accounting for reinsurance requires extensive use of assumptions and estimates, particularly related to the future performance of the underlying business and the potential impact of counterparty credit risks. The Company periodically reviews actual and anticipated experience compared to the aforementioned assumptions used to establish assets and liabilities relating to ceded and assumed reinsurance and evaluates the financial strength of counterparties to its reinsurance agreements using criteria similar to that evaluated in the security impairment process discussed in Note 8.

U.S.

For its Group Benefits business, the Company generally retains most of the risk and only cedes particular risk on certain client arrangements. The majority of the Company's reinsurance activity within this business relates to client agreements for employer sponsored captive programs, risk-sharing agreements and multinational pooling. The risks ceded under these agreements are generally quota shares of group life and disability policies. The cessions vary from 50% to 100% of all the risks of the policies.

The Company, through its Property & Casualty business, purchases reinsurance to manage its exposure to large losses (primarily catastrophe losses) and to protect statutory surplus. The Company cedes losses and premiums based upon the exposure of the policies subject to reinsurance. To manage exposure to large property & casualty losses, the Company purchases property catastrophe, casualty and property per risk excess of loss reinsurance protection.

The Company's RIS business has periodically engaged in reinsurance activities on an opportunistic basis. There were no such transactions during the periods presented.

Asia, Latin America and EMEA

For selected large corporate clients, the Company reinsures group employee benefits or credit insurance business with various client-affiliated reinsurance companies, covering policies issued to the employees or customers of the clients. Additionally, the Company cedes and assumes risk with other insurance companies when either company requires a business partner with the appropriate local licensing to issue certain types of policies in certain jurisdictions. In these cases, the assuming company typically underwrites the risks, develops the products and assumes most or all of the risk. The Company also has reinsurance agreements in-force that reinsure a portion of the living and death benefit guarantees issued in connection with variable annuity products. Under these agreements, the Company pays reinsurance fees associated with the guarantees collected from policyholders, and receives reimbursement for benefits paid or accrued in excess of account values, subject to certain limitations. The Company may also reinsure certain risks with external reinsurers depending upon the nature of the risk and local regulatory requirements.

MetLife Holdings

For its life products, the Company has historically reinsured the mortality risk primarily on an excess of retention basis or on a quota share basis. In addition to reinsuring mortality risk as described above, the Company reinsures other risks, as well as specific coverages. Placement of reinsurance is done primarily on an automatic basis and also on a facultative basis for risks with specified characteristics. The Company also assumes portions of the risk associated with certain whole life policies issued by a former affiliate and reinsures certain term life policies and universal life policies with secondary death benefit guarantees to such former affiliate.

For its other products, the Company has a reinsurance agreement in-force to reinsure the living and death benefit guarantees issued in connection with certain variable annuity guarantees from the Company's former operating joint venture in Japan. Under this agreement, the Company receives reinsurance fees associated with the guarantees collected from policyholders, and provides reimbursement for benefits paid or accrued in excess of account values, subject to certain limitations.

Catastrophe Coverage

The Company has exposure to catastrophes which could contribute to significant fluctuations in the Company's results of operations. For the U.S. and EMEA, the Company purchases catastrophe coverage to reinsure risks issued within territories that the Company believes are subject to the greatest catastrophic risks. For its other segments, the Company uses excess of retention and quota share reinsurance agreements to provide greater diversification of risk and minimize exposure to larger risks. Excess of retention reinsurance agreements provide for a portion of a risk to remain with the direct writing company and quota share reinsurance agreements provide for the direct writing company to transfer a fixed percentage of all risks of a class of policies.

6. Reinsurance (continued)

Reinsurance Recoverables

The Company reinsures its business through a diversified group of well-capitalized reinsurers. The Company analyzes recent trends in arbitration and litigation outcomes in disputes, if any, with its reinsurers. The Company monitors ratings and evaluates the financial strength of its reinsurers by analyzing their financial statements. In addition, the reinsurance recoverable balance due from each reinsurer is evaluated as part of the overall monitoring process. Recoverability of reinsurance recoverable balances is evaluated based on these analyses. The Company generally secures large reinsurance recoverable balances with various forms of collateral, including secured trusts, funds withheld accounts and irrevocable letters of credit. These reinsurance recoverable balances are stated net of allowances for uncollectible reinsurance, which at December 31, 2019 and 2018, were not significant.

The Company has secured certain reinsurance recoverable balances with various forms of collateral, including secured trusts, funds withheld accounts and irrevocable letters of credit. The Company had $3.6 billion and $3.4 billion of unsecured reinsurance recoverable balances at December 31, 2019 and 2018, respectively.

At December 31, 2019, the Company had $6.7 billion of net ceded reinsurance recoverables. Of this total, $4.3 billion, or 64%, were with the Company's five largest ceded reinsurers, including $1.7 billion of net ceded reinsurance recoverables which were unsecured. At December 31, 2018, the Company had $7.5 billion of net ceded reinsurance recoverables. Of this total, $4.5 billion, or 60%, were with the Company's five largest ceded reinsurers, including $1.1 billion of net ceded reinsurance recoverables which were unsecured.

The Company has reinsured with an unaffiliated third-party reinsurer, 59.25% of the closed block through a modified coinsurance agreement. The Company accounts for this agreement under the deposit method of accounting. The Company, having the right of offset, has offset the modified coinsurance deposit with the deposit recoverable.

6. Reinsurance (continued)

The amounts on the consolidated statements of operations include the impact of reinsurance. Information regarding the significant effects of reinsurance was as follows:

	Years Ended December 31,		
	2019	2018	2017
	(In millions)		
Premiums			
Direct premiums	$ 42,513	$ 44,199	$ 39,595
Reinsurance assumed	2,020	2,021	1,773
Reinsurance ceded	(2,298)	(2,380)	(2,376)
Net premiums	$ 42,235	$ 43,840	$ 38,992
Universal life and investment-type product policy fees			
Direct universal life and investment-type product policy fees	$ 6,109	$ 6,008	$ 5,978
Reinsurance assumed	56	86	83
Reinsurance ceded	(562)	(592)	(551)
Net universal life and investment-type product policy fees	$ 5,603	$ 5,502	$ 5,510
Policyholder benefits and claims			
Direct policyholder benefits and claims	$ 42,094	$ 43,456	$ 39,354
Reinsurance assumed	1,584	1,583	1,388
Reinsurance ceded	(2,217)	(2,383)	(2,429)
Net policyholder benefits and claims	$ 41,461	$ 42,656	$ 38,313
Other expenses			
Direct other expenses	$ 13,559	$ 13,704	$ 13,610
Reinsurance assumed	382	321	246
Reinsurance ceded	(252)	(311)	(235)
Net other expenses	$ 13,689	$ 13,714	$ 13,621

The amounts on the consolidated balance sheets include the impact of reinsurance. Information regarding the significant effects of reinsurance was as follows at:

	December 31,							
	2019				2018			
	Direct	Assumed	Ceded	Total Balance Sheet	Direct	Assumed	Ceded	Total Balance Sheet
	(In millions)							
Assets								
Premiums, reinsurance and other receivables	$ 6,814	$ 2,190	$ 11,439	$ 20,443	$ 5,988	$ 1,603	$ 12,053	$ 19,644
Deferred policy acquisition costs and value of business acquired	17,822	301	(290)	17,833	18,812	385	(302)	18,895
Total assets	$ 24,636	$ 2,491	$ 11,149	$ 38,276	$ 24,800	$ 1,988	$ 11,751	$ 38,539
Liabilities								
Future policy benefits	$ 191,403	$ 3,506	$ —	$ 194,909	$ 183,367	$ 3,413	$ —	$ 186,780
Policyholder account balances	192,328	299	—	192,627	183,207	488	(2)	183,693
Other policy-related balances	15,806	1,351	14	17,171	15,519	986	24	16,529
Other liabilities	16,165	2,402	5,612	24,179	14,848	2,131	5,985	22,964
Total liabilities	$ 415,702	$ 7,558	$ 5,626	$ 428,886	$ 396,941	$ 7,018	$ 6,007	$ 409,966

6. Reinsurance (continued)

Reinsurance agreements that do not expose the Company to a reasonable possibility of a significant loss from insurance risk are recorded using the deposit method of accounting. The deposit assets on reinsurance were $2.5 billion and $2.7 billion at December 31, 2019 and 2018, respectively. The deposit liabilities on reinsurance were $1.4 billion at both December 31, 2019 and 2018.

7. Closed Block

On April 7, 2000 (the "Demutualization Date"), Metropolitan Life Insurance Company ("MLIC") converted from a mutual life insurance company to a stock life insurance company and became a wholly-owned subsidiary of MetLife, Inc. The conversion was pursuant to an order by the New York Superintendent of Insurance approving MLIC's plan of reorganization, as amended (the "Plan of Reorganization"). On the Demutualization Date, MLIC established a closed block for the benefit of holders of certain individual life insurance policies of MLIC. Assets have been allocated to the closed block in an amount that has been determined to produce cash flows which, together with anticipated revenues from the policies included in the closed block, are reasonably expected to be sufficient to support obligations and liabilities relating to these policies, including, but not limited to, provisions for the payment of claims and certain expenses and taxes, and to provide for the continuation of policyholder dividend scales in effect for 1999, if the experience underlying such dividend scales continues, and for appropriate adjustments in such scales if the experience changes. At least annually, the Company compares actual and projected experience against the experience assumed in the then-current dividend scales. Dividend scales are adjusted periodically to give effect to changes in experience.

The closed block assets, the cash flows generated by the closed block assets and the anticipated revenues from the policies in the closed block will benefit only the holders of the policies in the closed block. To the extent that, over time, cash flows from the assets allocated to the closed block and claims and other experience related to the closed block are, in the aggregate, more or less favorable than what was assumed when the closed block was established, total dividends paid to closed block policyholders in the future may be greater than or less than the total dividends that would have been paid to these policyholders if the policyholder dividend scales in effect for 1999 had been continued. Any cash flows in excess of amounts assumed will be available for distribution over time to closed block policyholders and will not be available to stockholders. If the closed block has insufficient funds to make guaranteed policy benefit payments, such payments will be made from assets outside of the closed block. The closed block will continue in effect as long as any policy in the closed block remains in-force. The expected life of the closed block is over 100 years from the Demutualization Date.

The Company uses the same accounting principles to account for the participating policies included in the closed block as it used prior to the Demutualization Date. However, the Company establishes a policyholder dividend obligation for earnings that will be paid to policyholders as additional dividends as described below. The excess of closed block liabilities over closed block assets at the Demutualization Date (adjusted to eliminate the impact of related amounts in AOCI) represents the estimated maximum future earnings from the closed block expected to result from operations, attributed net of income tax, to the closed block. Earnings of the closed block are recognized in income over the period the policies and contracts in the closed block remain in-force. Management believes that over time the actual cumulative earnings of the closed block will approximately equal the expected cumulative earnings due to the effect of dividend changes. If, over the period the closed block remains in existence, the actual cumulative earnings of the closed block are greater than the expected cumulative earnings of the closed block, the Company will pay the excess to closed block policyholders as additional policyholder dividends unless offset by future unfavorable experience of the closed block and, accordingly, will recognize only the expected cumulative earnings in income with the excess recorded as a policyholder dividend obligation. If over such period, the actual cumulative earnings of the closed block are less than the expected cumulative earnings of the closed block, the Company will recognize only the actual earnings in income. However, the Company may change policyholder dividend scales in the future, which would be intended to increase future actual earnings until the actual cumulative earnings equal the expected cumulative earnings.

Experience within the closed block, in particular mortality and investment yields, as well as realized and unrealized gains and losses, directly impact the policyholder dividend obligation. Amortization of the closed block DAC, which resides outside of the closed block, is based upon cumulative actual and expected earnings within the closed block. Accordingly, the Company's net income continues to be sensitive to the actual performance of the closed block.

Closed block assets, liabilities, revenues and expenses are combined on a line-by-line basis with the assets, liabilities, revenues and expenses outside the closed block based on the nature of the particular item.

7. Closed Block (continued)

Information regarding the closed block liabilities and assets designated to the closed block was as follows at:

	December 31,	
	2019	2018
	(In millions)	
Closed Block Liabilities		
Future policy benefits	$ 39,379	$ 40,032
Other policy-related balances	423	317
Policyholder dividends payable	432	431
Policyholder dividend obligation	2,020	428
Deferred income tax liability	79	28
Other liabilities	81	328
Total closed block liabilities	42,414	41,564
Assets Designated to the Closed Block		
Investments:		
Fixed maturity securities available-for-sale, at estimated fair value	25,977	25,354
Equity securities, at estimated fair value	49	61
Contractholder-directed equity securities and fair value option securities, at estimated fair value	53	43
Mortgage loans	7,052	6,778
Policy loans	4,489	4,527
Real estate and real estate joint ventures	544	544
Other invested assets	314	643
Total investments	38,478	37,950
Cash and cash equivalents	448	—
Accrued investment income	419	443
Premiums, reinsurance and other receivables	75	83
Current income tax recoverable	91	69
Total assets designated to the closed block	39,511	38,545
Excess of closed block liabilities over assets designated to the closed block	2,903	3,019
Amounts included in AOCI:		
Unrealized investment gains (losses), net of income tax	2,453	1,089
Unrealized gains (losses) on derivatives, net of income tax	97	86
Allocated to policyholder dividend obligation, net of income tax	(1,596)	(338)
Total amounts included in AOCI	954	837
Maximum future earnings to be recognized from closed block assets and liabilities	$ 3,857	$ 3,856

Information regarding the closed block policyholder dividend obligation was as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Balance at January 1,	$ 428	$ 2,121	$ 1,931
Change in unrealized investment and derivative gains (losses)	1,592	(1,693)	190
Balance at December 31,	$ 2,020	$ 428	$ 2,121

7. Closed Block (continued)

Information regarding the closed block revenues and expenses was as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Revenues			
Premiums	$ 1,580	$ 1,672	$ 1,736
Net investment income	1,740	1,758	1,818
Net investment gains (losses)	(7)	(71)	1
Net derivative gains (losses)	12	22	(32)
Total revenues	3,325	3,381	3,523
Expenses			
Policyholder benefits and claims	2,291	2,475	2,453
Policyholder dividends	924	968	976
Other expenses	111	117	125
Total expenses	3,326	3,560	3,554
Revenues, net of expenses before provision for income tax expense (benefit)	(1)	(179)	(31)
Provision for income tax expense (benefit)	(2)	(39)	12
Revenues, net of expenses and provision for income tax expense (benefit)	$ 1	$ (140)	$ (43)

MLIC charges the closed block with federal income taxes, state and local premium taxes and other state or local taxes, as well as investment management expenses relating to the closed block as provided in the Plan of Reorganization. MLIC also charges the closed block for expenses of maintaining the policies included in the closed block.

8. Investments

See Note 10 for information about the fair value hierarchy for investments and the related valuation methodologies.

Investment Risks and Uncertainties

Investments are exposed to the following primary sources of risk: credit, interest rate, liquidity, market valuation, currency and real estate risk. The financial statement risks, stemming from such investment risks, are those associated with the determination of estimated fair values, the diminished ability to sell certain investments in times of strained market conditions, the recognition of impairments, the recognition of income on certain investments and the potential consolidation of VIEs. The use of different methodologies, assumptions and inputs relating to these financial statement risks may have a material effect on the amounts presented within the consolidated financial statements.

The determination of valuation allowances and impairments is highly subjective and is based upon periodic evaluations and assessments of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available.

The recognition of income on certain investments (e.g. structured securities, including mortgage-backed securities, asset-backed securities ("ABS"), certain structured investment transactions and FVO Securities) is dependent upon certain factors such as prepayments and defaults, and changes in such factors could result in changes in amounts to be earned.

Fixed Maturity Securities AFS

Fixed Maturity Securities AFS by Sector

The following table presents the fixed maturity securities AFS by sector. U.S. corporate and foreign corporate sectors include redeemable preferred stock. RMBS includes agency, prime, alternative and sub-prime mortgage-backed securities. ABS includes securities collateralized by corporate loans and consumer loans. Municipals includes taxable and tax-exempt revenue bonds and, to a much lesser extent, general obligations of states, municipalities and political subdivisions. Commercial mortgage-backed securities ("CMBS") primarily includes securities collateralized by multiple commercial mortgage loans. RMBS, ABS and CMBS are collectively, "Structured Products."

8. Investments (continued)

	December 31, 2019					December 31, 2018				
		Gross Unrealized					Gross Unrealized			
	Amortized Cost	Gains	Temporary Losses	OTTI Losses (1)	Estimated Fair Value	Amortized Cost	Gains	Temporary Losses	OTTI Losses (1)	Estimated Fair Value
	(In millions)									
U.S. corporate	$ 79,115	$ 8,943	$ 305	$ —	$ 87,753	$ 77,761	$ 3,467	$ 2,280	$ —	$ 78,948
Foreign government	58,840	8,710	321	—	67,229	56,353	6,406	471	—	62,288
Foreign corporate	59,342	5,540	717	—	64,165	56,290	2,438	2,025	—	56,703
U.S. government and agency	37,586	4,604	106	—	42,084	37,030	2,756	464	—	39,322
RMBS	27,051	1,535	72	(33)	28,547	27,409	920	394	(26)	27,961
ABS	14,547	83	88	—	14,542	12,552	74	153	1	12,472
Municipals	11,081	2,001	29	—	13,053	10,376	1,228	71	—	11,533
CMBS	10,093	396	42	—	10,447	9,045	115	122	—	9,038
Total fixed maturity securities AFS	$ 297,655	$31,812	$ 1,680	$ (33)	$ 327,820	$ 286,816	$ 17,404	$ 5,980	$ (25)	$ 298,265

(1) Noncredit OTTI losses included in AOCI in an unrealized gain position are due to increases in estimated fair value subsequent to initial recognition of noncredit losses on such securities. See also "— Net Unrealized Investment Gains (Losses)."

Methodology for Amortization of Premium and Accretion of Discount on Structured Products

Amortization of premium and accretion of discount on Structured Products considers the estimated timing and amount of prepayments of the underlying loans. Actual prepayment experience is periodically reviewed and effective yields are recalculated when differences arise between the originally anticipated and the actual prepayments received and currently anticipated. Prepayment assumptions for Structured Products are estimated using inputs obtained from third-party specialists and based on management's knowledge of the current market. For credit-sensitive and certain prepayment-sensitive Structured Products, the effective yield is recalculated on a prospective basis. For all other Structured Products, the effective yield is recalculated on a retrospective basis.

Maturities of Fixed Maturity Securities AFS

The amortized cost and estimated fair value of fixed maturity securities AFS, by contractual maturity date, were as follows at December 31, 2019:

	Due in One Year or Less	Due After One Year Through Five Years	Due After Five Years Through Ten Years	Due After Ten Years	Structured Products	Total Fixed Maturity Securities AFS
	(In millions)					
Amortized cost	$ 17,822	$ 48,014	$ 58,800	$ 121,328	$ 51,691	$ 297,655
Estimated fair value	$ 17,960	$ 50,058	$ 64,135	$ 142,131	$ 53,536	$ 327,820

Actual maturities may differ from contractual maturities due to the exercise of call or prepayment options. Fixed maturity securities AFS not due at a single maturity date have been presented in the year of final contractual maturity. Structured Products are shown separately, as they are not due at a single maturity.

8. Investments (continued)

Continuous Gross Unrealized Losses for Fixed Maturity Securities AFS by Sector

The following table presents the estimated fair value and gross unrealized losses of fixed maturity securities AFS in an unrealized loss position by sector and aggregated by length of time that the securities have been in a continuous unrealized loss position at:

	December 31, 2019				December 31, 2018			
	Less than 12 Months		Equal to or Greater than 12 Months		Less than 12 Months		Equal to or Greater than 12 Months	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
	(Dollars in millions)							
U.S. corporate	$ 3,817	$ 107	$ 2,226	$ 198	$ 32,430	$ 1,663	$ 5,826	$ 617
Foreign government	3,295	149	1,490	172	4,392	243	2,902	228
Foreign corporate	3,188	133	5,873	584	19,564	1,230	5,765	795
U.S. government and agency	5,391	97	196	9	6,813	58	8,937	406
RMBS	2,341	25	584	14	6,506	120	6,423	248
ABS	3,692	22	4,843	66	8,230	138	392	16
Municipals	1,156	29	1	—	1,380	46	349	25
CMBS	1,926	16	487	26	3,893	67	707	55
Total fixed maturity securities AFS	$ 24,806	$ 578	$ 15,700	$ 1,069	$ 83,208	$ 3,565	$ 31,301	$ 2,390
Total number of securities in an unrealized loss position	2,153		1,411		6,913		2,335	

Evaluation of Fixed Maturity Securities AFS for OTTI and Evaluating Temporarily Impaired Fixed Maturity Securities AFS

Evaluation and Measurement Methodologies

Management considers a wide range of factors about the security issuer and uses its best judgment in evaluating the cause of the decline in the estimated fair value of the security and in assessing the prospects for near-term recovery. Inherent in management's evaluation of the security are assumptions and estimates about the operations of the issuer and its future earnings potential. Considerations used in the impairment evaluation process include, but are not limited to: (i) the length of time and the extent to which the estimated fair value has been below amortized cost; (ii) the potential for impairments when the issuer is experiencing significant financial difficulties; (iii) the potential for impairments in an entire industry sector or sub-sector; (iv) the potential for impairments in certain economically depressed geographic locations; (v) the potential for impairments where the issuer, series of issuers or industry has suffered a catastrophic loss or has exhausted natural resources; (vi) whether the Company has the intent to sell or will more likely than not be required to sell a particular security before the decline in estimated fair value below amortized cost recovers; (vii) with respect to Structured Products, changes in forecasted cash flows after considering the quality of underlying collateral, expected prepayment speeds, current and forecasted loss severity, consideration of the payment terms of the underlying assets backing a particular security, and the payment priority within the tranche structure of the security; (viii) the potential for impairments due to weakening of foreign currencies on non-functional currency denominated securities that are near maturity; and (ix) other subjective factors, including concentrations and information obtained from regulators and rating agencies.

8. Investments (continued)

The methodology and significant inputs used to determine the amount of credit loss are as follows:

- The Company calculates the recovery value by performing a discounted cash flow analysis based on the present value of future cash flows. The discount rate is generally the effective interest rate of the security prior to impairment.
- When determining collectability and the period over which value is expected to recover, the Company applies considerations utilized in its overall impairment evaluation process which incorporates information regarding the specific security, fundamentals of the industry and geographic area in which the security issuer operates, and overall macroeconomic conditions. Projected future cash flows are estimated using assumptions derived from management's best estimates of likely scenario-based outcomes after giving consideration to a variety of variables that include, but are not limited to: payment terms of the security; the likelihood that the issuer can service the interest and principal payments; the quality and amount of any credit enhancements; the security's position within the capital structure of the issuer; possible corporate restructurings or asset sales by the issuer; and changes to the rating of the security or the issuer by rating agencies.
- Additional considerations are made when assessing the unique features that apply to certain Structured Products including, but not limited to: the quality of underlying collateral, expected prepayment speeds, current and forecasted loss severity, consideration of the payment terms of the underlying loans or assets backing a particular security, and the payment priority within the tranche structure of the security.
- When determining the amount of the credit loss for the following types of securities: U.S. and foreign corporate, foreign government and municipals, the estimated fair value is considered the recovery value when available information does not indicate that another value is more appropriate. When information is identified that indicates a recovery value other than estimated fair value, management considers in the determination of recovery value the same considerations utilized in its overall impairment evaluation process as described above, as well as any private and public sector programs to restructure such securities.

With respect to securities that have attributes of debt and equity ("perpetual hybrid securities"), consideration is given in the OTTI analysis as to whether there has been any deterioration in the credit of the issuer and the likelihood of recovery in value of the securities that are in a severe and extended unrealized loss position. Consideration is also given as to whether any perpetual hybrid securities with an unrealized loss, regardless of credit rating, have deferred any dividend payments. When an OTTI loss has occurred, the OTTI loss is the entire difference between the perpetual hybrid security's cost and its estimated fair value with a corresponding charge to earnings.

The amortized cost of securities is adjusted for OTTI in the period in which the determination is made. The Company does not change the revised cost basis for subsequent recoveries in value.

In periods subsequent to the recognition of OTTI on a security, the Company accounts for the impaired security as if it had been purchased on the measurement date of the impairment. Accordingly, the discount (or reduced premium) based on the new cost basis is accreted over the remaining term of the security in a prospective manner based on the amount and timing of estimated future cash flows.

Current Period Evaluation

Based on the Company's current evaluation of its securities in an unrealized loss position in accordance with its impairment policy, and the Company's current intentions and assessments (as applicable to the type of security) about holding, selling and any requirements to sell these securities, the Company concluded that these securities were not other-than-temporarily impaired at December 31, 2019. Future OTTI will depend primarily on economic fundamentals, issuer performance (including changes in the present value of future cash flows expected to be collected), and changes in credit ratings, collateral valuation and foreign currency exchange rates. If economic fundamentals deteriorate or if there are adverse changes in the above factors, OTTI may be incurred in upcoming periods.

Gross unrealized losses on fixed maturity securities AFS decreased $4.3 billion for the year ended December 31, 2019 to $1.6 billion. The decrease in gross unrealized losses for the year ended December 31, 2019 was primarily attributable to decreases in interest rates, narrowing credit spreads and, to a lesser extent, foreign currency exchange rate movements.

At December 31, 2019, $161 million of the total $1.6 billion of gross unrealized losses were from 70 fixed maturity securities AFS with an unrealized loss position of 20% or more of amortized cost for six months or greater.

8. Investments (continued)

Investment Grade Fixed Maturity Securities AFS

Of the $161 million of gross unrealized losses on fixed maturity securities AFS with an unrealized loss of 20% or more of amortized cost for six months or greater, $92 million, or 57%, were related to gross unrealized losses on 23 investment grade fixed maturity securities AFS. Unrealized losses on investment grade fixed maturity securities AFS are principally related to widening credit spreads since purchase and, with respect to fixed-rate fixed maturity securities AFS, rising interest rates since purchase.

Below Investment Grade Fixed Maturity Securities AFS

Of the $161 million of gross unrealized losses on fixed maturity securities AFS with an unrealized loss of 20% or more of amortized cost for six months or greater, $69 million, or 43%, were related to gross unrealized losses on 47 below investment grade fixed maturity securities AFS. Unrealized losses on below investment grade fixed maturity securities AFS are principally related to U.S. and foreign corporate securities (primarily industrial and financial institutions) and foreign government securities which have experienced significantly wider credit spreads since purchase, largely due to economic and market uncertainty. Management evaluates U.S. and foreign corporate securities based on factors such as expected cash flows, financial condition and near-term and long-term prospects of the issuers. Management evaluates foreign government securities based on factors impacting the issuers such as expected cash flows and financial condition of the issuers and any country-specific economic conditions or public sector programs.

Equity Securities

Equity securities are summarized as follows at:

	December 31, 2019		December 31, 2018	
	Estimated Fair Value	% of Total	Estimated Fair Value	% of Total
	(Dollars in millions)			
Common stock	$ 944	70.3%	$ 1,037	72.0%
Non-redeemable preferred stock	398	29.7	403	28.0
Total equity securities	$ 1,342	100.0%	$ 1,440	100.0%

8. Investments (continued)

Mortgage Loans

Mortgage Loans by Portfolio Segment

Mortgage loans are summarized as follows at:

	December 31,			
	2019		2018	
	Carrying Value	% of Total	Carrying Value	% of Total
	(Dollars in millions)			
Mortgage loans:				
Commercial	$ 49,624	61.6%	$ 48,463	64.0%
Agricultural	16,695	20.7	14,905	19.7
Residential	14,316	17.8	12,427	16.4
Total recorded investment	80,635	100.1	75,795	100.1
Valuation allowances	(353)	(0.4)	(342)	(0.5)
Subtotal mortgage loans, net	80,282	99.7	75,453	99.6
Residential — FVO (1)	188	0.2	299	0.4
Total mortgage loans held-for-investment, net	80,470	99.9	75,752	100.0
Mortgage loans held-for-sale	59	0.1	—	—
Total mortgage loans, net	$ 80,529	100.0%	$ 75,752	100.0%

(1) Information on residential mortgage loans — FVO is presented in Note 10. The Company elects the FVO for certain residential mortgage loans that are managed on a total return basis.

The amount of net discounts, included within total recorded investment, primarily residential, was $867 million and $944 million at December 31, 2019 and 2018, respectively.

Purchases of mortgage loans, primarily residential, were $4.8 billion, $3.5 billion and $3.1 billion for the years ended December 31, 2019, 2018 and 2017, respectively.

8. Investments (continued)

Mortgage Loans, Valuation Allowance and Impaired Loans by Portfolio Segment

Mortgage loans held-for-investment by portfolio segment, by method of evaluation of credit loss, impaired mortgage loans including those modified in a troubled debt restructuring, and the related valuation allowances, were as follows at and for the years ended:

	Evaluated Individually for Credit Losses					Evaluated Collectively for Credit Losses		Impaired Loans	
	Impaired Loans with a Valuation Allowance			Impaired Loans without a Valuation Allowance					
	Unpaid Principal Balance	Recorded Investment	Valuation Allowances	Unpaid Principal Balance	Recorded Investment	Recorded Investment	Valuation Allowances	Carrying Value	Average Recorded Investment
	(In millions)								
December 31, 2019									
Commercial	$ —	$ —	$ —	$ —	$ —	$ 49,624	$ 246	$ —	$ —
Agricultural	56	56	3	201	201	16,438	49	254	201
Residential	—	—	—	473	427	13,889	55	427	406
Total	$ 56	$ 56	$ 3	$ 674	$ 628	$ 79,951	$ 350	$ 681	$ 607
December 31, 2018									
Commercial	$ —	$ —	$ —	$ —	$ —	$ 48,463	$ 238	$ —	$ —
Agricultural	31	31	3	169	169	14,705	43	197	123
Residential	—	—	—	431	386	12,041	58	386	358
Total	$ 31	$ 31	$ 3	$ 600	$ 555	$ 75,209	$ 339	$ 583	$ 481

The average recorded investment for impaired commercial, agricultural and residential mortgage loans was $5 million, $32 million and $285 million, respectively, for the year ended December 31, 2017.

8. Investments (continued)

Valuation Allowance Rollforward by Portfolio Segment

The changes in the valuation allowance, by portfolio segment, were as follows:

	Commercial	Agricultural	Residential	Total
	(In millions)			
Balance at January 1, 2017	$ 202	$ 39	$ 63	$ 304
Provision (release)	12	4	8	24
Charge-offs, net of recoveries	—	(2)	(12)	(14)
Balance at December 31, 2017	214	41	59	314
Provision (release)	24	5	7	36
Charge-offs, net of recoveries	—	—	(8)	(8)
Balance at December 31, 2018	238	46	58	342
Provision (release)	8	11	7	26
Charge-offs, net of recoveries	—	(5)	(10)	(15)
Balance at December 31, 2019	$ 246	$ 52	$ 55	$ 353

Valuation Allowance Methodology

Mortgage loans are considered to be impaired when it is probable that, based upon current information and events, the Company will be unable to collect all amounts due under the loan agreement. Specific valuation allowances are established using the same methodology for all three portfolio segments as the excess carrying value of a loan over either (i) the present value of expected future cash flows discounted at the loan's original effective interest rate, (ii) the estimated fair value of the loan's underlying collateral if the loan is in the process of foreclosure or otherwise collateral dependent, or (iii) the loan's observable market price. A common evaluation framework is used for establishing non-specific valuation allowances for all loan portfolio segments; however, a separate non-specific valuation allowance is calculated and maintained for each loan portfolio segment that is based on inputs unique to each loan portfolio segment. Non-specific valuation allowances are established for pools of loans with similar risk characteristics where a property-specific or market-specific risk has not been identified, but for which the Company expects to incur a credit loss. These evaluations are based upon several loan portfolio segment-specific factors, including the Company's experience with loan losses, defaults and loss severity, and loss expectations for loans with similar risk characteristics. These evaluations are revised as conditions change and new information becomes available.

Commercial and Agricultural Mortgage Loan Portfolio Segments

The Company typically uses several years of historical experience in establishing non-specific valuation allowances which capture multiple economic cycles. For evaluations of commercial mortgage loans, in addition to historical experience, management considers factors that include the impact of a rapid change to the economy, which may not be reflected in the loan portfolio, and recent loss and recovery trend experience as compared to historical loss and recovery experience. For evaluations of agricultural mortgage loans, in addition to historical experience, management considers factors that include increased stress in certain sectors, which may be evidenced by higher delinquency rates, or a change in the number of higher risk loans. On a quarterly basis, management incorporates the impact of these current market events and conditions on historical experience in determining the non-specific valuation allowance established for commercial and agricultural mortgage loans.

All commercial mortgage loans are reviewed on an ongoing basis which may include an analysis of the property financial statements and rent roll, lease rollover analysis, property inspections, market analysis, estimated valuations of the underlying collateral, loan-to-value ratios, debt service coverage ratios, and tenant creditworthiness. The monitoring process focuses on higher risk loans, which include those that are classified as restructured, delinquent or in foreclosure, as well as loans with higher loan-to-value ratios and lower debt service coverage ratios. All agricultural mortgage loans are monitored on an ongoing basis. The monitoring process for agricultural mortgage loans is generally similar to the commercial mortgage loan monitoring process, with a focus on higher risk loans, including reviews on a geographic and property-type basis. Higher risk loans are reviewed individually on an ongoing basis for potential credit loss and specific valuation allowances are established using the methodology described above. Quarterly, the remaining loans are reviewed on a pool basis by aggregating groups of loans that have similar risk characteristics for potential credit loss, and non-specific valuation allowances are established as described above using inputs that are unique to each segment of the loan portfolio.

For commercial mortgage loans, the primary credit quality indicator is the debt service coverage ratio, which compares a property's net operating income to amounts needed to service the principal and interest due under the loan. Generally, the lower the debt service coverage ratio, the higher the risk of experiencing a credit loss. The Company also reviews the loan-to-value ratio of its commercial mortgage loan portfolio. Loan-to-value ratios compare the unpaid principal balance of the loan to the estimated fair value of the underlying collateral. Generally, the higher the loan-to-value ratio, the higher the risk of experiencing a credit loss. The debt service coverage ratio and the values utilized in calculating the ratio are updated annually on a rolling basis, with a portion of the portfolio updated each quarter. In addition, the loan-to-value ratio is routinely updated for all but the lowest risk loans as part of the Company's ongoing review of its commercial mortgage loan portfolio.

For agricultural mortgage loans, the Company's primary credit quality indicator is the loan-to-value ratio. The values utilized in calculating this ratio are developed in connection with the ongoing review of the agricultural mortgage loan portfolio and are routinely updated.

Residential Mortgage Loan Portfolio Segment

The Company's residential mortgage loan portfolio is comprised primarily of closed end, amortizing residential mortgage loans. For evaluations of residential mortgage loans, the key inputs of expected frequency and expected loss reflect current market conditions, with expected frequency adjusted, when appropriate, for differences from market conditions and the Company's historical experience. In contrast to the commercial and agricultural mortgage loan portfolios, residential mortgage loans are smaller-balance homogeneous loans that are collectively evaluated for impairment. Non-specific valuation allowances are established using the evaluation framework described above for pools of loans with similar risk characteristics from inputs that are unique to the residential segment of the loan portfolio. Loan specific valuation allowances are only established on residential mortgage loans when they have been restructured and are established using the methodology described above for all loan portfolio segments.

For residential mortgage loans, the Company's primary credit quality indicator is whether the loan is performing or nonperforming. The Company generally defines nonperforming residential mortgage loans as those that are 60 or more days past due and/or in nonaccrual status which is assessed monthly. Generally, nonperforming residential mortgage loans have a higher risk of experiencing a credit loss.

8. Investments (continued)

Credit Quality of Commercial Mortgage Loans

The credit quality of commercial mortgage loans held-for-investment was as follows at:

	Recorded Investment											
	Debt Service Coverage Ratios									Estimated Fair Value		
	> 1.20x		1.00x - 1.20x		< 1.00x		Total		% of Total			% of Total
	(Dollars in millions)											
December 31, 2019												
Loan-to-value ratios:												
Less than 65%	$	38,926	$	1,195	$	619	$	40,740	82.1%	$	42,330	82.4%
65% to 75%		6,975		54		398		7,427	15.0		7,589	14.8
76% to 80%		564		17		237		818	1.6		805	1.6
Greater than 80%		405		234		—		639	1.3		616	1.2
Total	$	46,870	$	1,500	$	1,254	$	49,624	100.0%	$	51,340	100.0%
December 31, 2018												
Loan-to-value ratios:												
Less than 65%	$	40,360	$	827	$	101	$	41,288	85.2%	$	41,599	85.3%
65% to 75%		5,790		—		25		5,815	12.0		5,849	12.0
76% to 80%		423		209		56		688	1.4		664	1.4
Greater than 80%		496		176		—		672	1.4		635	1.3
Total	$	47,069	$	1,212	$	182	$	48,463	100.0%	$	48,747	100.0%

Credit Quality of Agricultural Mortgage Loans

The credit quality of agricultural mortgage loans held-for-investment was as follows at:

	December 31,					
	2019			2018		
	Recorded Investment		% of Total	Recorded Investment		% of Total
	(Dollars in millions)					
Loan-to-value ratios:						
Less than 65%	$	15,618	93.5%	$	13,704	92.0%
65% to 75%		963	5.8		1,145	7.7
76% to 80%		71	0.4		33	0.2
Greater than 80%		43	0.3		23	0.1
Total	$	16,695	100.0%	$	14,905	100.0%

8. Investments (continued)

Credit Quality of Residential Mortgage Loans

The credit quality of residential mortgage loans held-for-investment was as follows at:

	December 31,			
	2019		2018	
	Recorded Investment	% of Total	Recorded Investment	% of Total
	(Dollars in millions)			
Performance indicators:				
Performing	$ 13,864	96.8%	$ 11,956	96.2%
Nonperforming (1)	452	3.2	471	3.8
Total	$ 14,316	100.0%	$ 12,427	100.0%

(1) Includes residential mortgage loans held-for-investment in process of foreclosure of $118 million and $140 million at December 31, 2019 and 2018, respectively.

Past Due and Nonaccrual Mortgage Loans

The Company has a high quality, well performing mortgage loan portfolio, with 99% of all mortgage loans classified as performing at both December 31, 2019 and 2018. The Company defines delinquency consistent with industry practice, when mortgage loans are past due as follows: commercial and residential mortgage loans — 60 days and agricultural mortgage loans — 90 days. The past due and nonaccrual mortgage loans at recorded investment, prior to valuation allowances, by portfolio segment, were as follows at:

	Past Due		Greater than 90 Days Past Due and Still Accruing Interest		Nonaccrual	
	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
	(In millions)					
Commercial	$ 10	$ 9	$ 9	$ 9	$ 176	$ 176
Agricultural	129	204	7	109	137	105
Residential	452	471	35	35	418	436
Total	$ 591	$ 684	$ 51	$ 153	$ 731	$ 717

Mortgage Loans Modified in a Troubled Debt Restructuring

The Company may grant concessions related to borrowers experiencing financial difficulties, which are classified as troubled debt restructurings. Generally, the types of concessions include: reduction of the contractual interest rate, extension of the maturity date at an interest rate lower than current market interest rates, and/or a reduction of accrued interest. The amount, timing and extent of the concessions granted are considered in determining any impairment or changes in the specific valuation allowance recorded with the restructuring. Through the continuous monitoring process, a specific valuation allowance may have been recorded prior to the quarter when the mortgage loan is modified in a troubled debt restructuring.

For the year ended December 31, 2019, the Company had 396 residential mortgage loans modified in a troubled debt restructuring with carrying value of $97 million and $87 million pre-modification and post-modification, respectively. For the year ended December 31, 2018, the Company had 440 residential mortgage loans modified in a troubled debt restructuring with carrying value of $96 million and $92 million pre-modification and post-modification, respectively.

For the year ended December 31, 2019, the Company had three agricultural mortgage loans modified in a troubled debt restructuring with carrying value of $111 million for both pre-modification and post-modification. For the year ended December 31, 2018, the Company did not have a significant amount of agricultural mortgage loans modified in a troubled debt restructuring. For both years ended December 31, 2019 and 2018, the Company did not have commercial mortgage loans modified in a troubled debt restructuring.

8. Investments (continued)

Real Estate and Real Estate Joint Ventures

The Company's real estate investment portfolio is diversified by property type, geography and income stream, including income from operating leases, operating income and equity in earnings from equity method real estate joint ventures. Real estate investments, by income type, as well as income earned, are as follows at and for the periods indicated:

	December 31, 2019	December 31, 2018	Years Ended December 31, 2019	2018	2017
	Carrying Value		Income		
		(In millions)			
Leased real estate investments	$ 4,893	$ 4,132	$ 380	$ 399	$ 379
Other real estate investments	420	461	192	188	189
Real estate joint ventures	5,428	5,105	104	107	78
Total real estate and real estate joint ventures	$ 10,741	$ 9,698	$ 676	$ 694	$ 646

The carrying value of real estate investments acquired through foreclosure was $36 million and $45 million at December 31, 2019 and 2018, respectively. Depreciation expense on real estate investments was $100 million, $92 million and $103 million for the years ended December 31, 2019, 2018 and 2017, respectively. Real estate investments were net of accumulated depreciation of $957 million and $931 million at December 31, 2019 and 2018, respectively.

Leases

Leased Real Estate Investments - Operating Leases

The Company, as lessor, leases investment real estate, principally commercial real estate for office and retail use, through a variety of operating lease arrangements, which typically include tenant reimbursement for property operating costs and options to renew or extend the lease. In some circumstances, leases may include an option for the lessee to purchase the property. In addition, certain leases of retail space may stipulate that a portion of the income earned is contingent upon the level of the tenants' revenues. The Company has elected a practical expedient of not separating non-lease components related to reimbursement of property operating costs from associated lease components. These property operating costs have the same timing and pattern of transfer as the related lease component, because they are incurred over the same period of time as the operating lease. Therefore, the combined component is accounted for as a single operating lease. Risk is managed through lessee credit analysis, property type diversification, and geographic diversification, primarily across the United States. Leased real estate investments and income earned, by property type, are as follows at and for the periods indicated:

	December 31, 2019	December 31, 2018	Years Ended December 31, 2019	2018	2017
	Carrying Value		Income		
		(In millions)			
Leased real estate investments:					
Office	$ 1,999	$ 1,999	$ 175	$ 169	$ 157
Retail	1,127	1,006	102	95	92
Apartment	778	253	24	70	72
Industrial	306	223	46	38	39
Land	514	489	21	19	13
Hotel	93	94	7	3	2
Other	76	68	5	5	4
Total leased real estate investments	$ 4,893	$ 4,132	$ 380	$ 399	$ 379

8. Investments (continued)

Future contractual receipts under operating leases as of December 31, 2019 are $288 million in 2020, $240 million in 2021, $205 million in 2022, $186 million in 2023, $159 million in 2024, $1.1 billion thereafter, and in total are $2.2 billion.

Leveraged and Direct Financing Leases

The Company has diversified leveraged lease and direct financing lease portfolios. Its leveraged leases principally include renewable energy generation facilities, rail cars, commercial real estate and commercial aircraft, and its direct financing leases principally include commercial real estate. These assets are leased through a variety of lease arrangements, which may include options to renew or extend the lease and options for the lessee to purchase the property. Residual values are estimated at inception of the lease using available third-party data. Risk is managed through lessee credit analysis, asset allocation, geographic diversification, and ongoing reviews of estimated residual values, using available third-party data and, in certain leases, linking the amount of future rents to changes in inflation rates. Generally, estimated residual values are not guaranteed by the lessee or a third party.

Investment in leveraged and direct financing leases consisted of the following at:

	December 31, 2019		December 31, 2018	
	Leveraged Leases	Direct Financing Leases	Leveraged Leases	Direct Financing Leases
	(In millions)			
Lease receivables, net (1)	$ 666	$ 1,931	$ 715	$ 1,855
Estimated residual values	751	42	807	42
Subtotal	1,417	1,973	1,522	1,897
Unearned income	(365)	(726)	(414)	(705)
Investment in leases	$ 1,052	$ 1,247	$ 1,108	$ 1,192

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(1) Future contractual receipts under direct financing leases as of December 31, 2019 are $104 million in 2020, $98 million in 2021, $104 million in 2022, $108 million in 2023, $95 million in 2024, $1.4 billion thereafter, and in total $1.9 billion.

Lease receivables are generally due in periodic installments. The remaining life of the payment periods for leveraged leases generally range from one to 15 years but in certain circumstances can be over 25 years, while the remaining life of the payment periods for direct financing leases generally range from one to 25 years but in certain circumstances can be over 25 years. For lease receivables, the primary credit quality indicator is whether the lease receivable is performing or nonperforming, which is assessed monthly. The Company generally defines nonperforming lease receivables as those that are 90 days or more past due. At both December 31, 2019 and 2018, all leveraged lease receivables were performing and 94% of direct financing lease receivables were performing.

The Company's deferred income tax liability related to leveraged leases was $467 million and $519 million at December 31, 2019 and 2018, respectively.

The components of income from investment in leveraged and direct financing leases, excluding net investment gains (losses), were as follows:

	Years Ended December 31,					
	2019		2018		2017	
	Leveraged Leases	Direct Financing Leases	Leveraged Leases	Direct Financing Leases	Leveraged Leases	Direct Financing Leases
	(In millions)					
Lease investment income	$ 48	$ 109	$ 47	$ 95	$ 19	$ 89
Less: Income tax expense	10	23	10	20	7	31
Lease investment income, net of income tax	$ 38	$ 86	$ 37	$ 75	$ 12	$ 58

8. Investments (continued)

Other Invested Assets

Other invested assets is comprised primarily of freestanding derivatives with positive estimated fair values (see Note 9), tax credit and renewable energy partnerships, annuities funding structured settlement claims, direct financing and leveraged leases and operating joint ventures.

Tax Credit Partnerships

The carrying value of tax credit partnerships was $1.3 billion and $1.7 billion at December 31, 2019 and 2018, respectively. Losses from tax credit partnerships included within net investment income were $240 million, $257 million and $259 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Cash Equivalents

The carrying value of cash equivalents, which includes securities and other investments with an original or remaining maturity of three months or less at the time of purchase, was $8.6 billion and $9.0 billion at December 31, 2019 and 2018, respectively.

Net Unrealized Investment Gains (Losses)

Unrealized investment gains (losses) on fixed maturity securities AFS, equity securities and derivatives and the effect on DAC, VOBA, DSI, future policy benefits and the policyholder dividend obligation, that would result from the realization of the unrealized gains (losses), are included in net unrealized investment gains (losses) in AOCI.

The components of net unrealized investment gains (losses), included in AOCI, were as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Fixed maturity securities AFS	$ 30,050	$ 11,356	$ 22,645
Fixed maturity securities AFS with noncredit OTTI losses included in AOCI	33	25	41
Total fixed maturity securities AFS	30,083	11,381	22,686
Equity securities	—	—	421
Derivatives	2,209	2,127	1,453
Other	310	290	46
Subtotal	32,602	13,798	24,606
Amounts allocated from:			
Future policy benefits	(1,019)	31	(77)
DAC and VOBA related to noncredit OTTI losses recognized in AOCI	—	—	—
DAC, VOBA and DSI	(2,716)	(1,231)	(1,768)
Policyholder dividend obligation	(2,020)	(428)	(2,121)
Subtotal	(5,755)	(1,628)	(3,966)
Deferred income tax benefit (expense) related to noncredit OTTI losses recognized in AOCI	(4)	(3)	(12)
Deferred income tax benefit (expense)	(6,846)	(3,502)	(6,958)
Net unrealized investment gains (losses)	19,997	8,665	13,670
Net unrealized investment gains (losses) attributable to noncontrolling interests	(16)	(10)	(8)
Net unrealized investment gains (losses) attributable to MetLife, Inc.	$ 19,981	$ 8,655	$ 13,662

8. Investments (continued)

The changes in net unrealized investment gains (losses) were as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Balance at January 1,	$ 8,655	$ 13,662	$ 12,650
Cumulative effects of changes in accounting principles, net of income tax (Note 1)	21	1,258	—
Fixed maturity securities AFS on which noncredit OTTI losses have been recognized	8	(16)	33
Unrealized investment gains (losses) during the year	18,770	(10,367)	804
Unrealized investment gains (losses) relating to:			
Future policy benefits	(1,050)	108	1,037
DAC and VOBA related to noncredit OTTI losses recognized in AOCI	—	—	3
DAC, VOBA and DSI	(1,485)	537	(338)
Policyholder dividend obligation	(1,592)	1,693	(190)
Deferred income tax benefit (expense) related to noncredit OTTI losses recognized in AOCI	(1)	9	(11)
Deferred income tax benefit (expense)	(3,339)	1,773	(324)
Net unrealized investment gains (losses)	19,987	8,657	13,664
Net unrealized investment gains (losses) attributable to noncontrolling interests	(6)	(2)	(2)
Balance at December 31,	$ 19,981	$ 8,655	$ 13,662
Change in net unrealized investment gains (losses)	$ 11,332	$ (5,005)	$ 1,014
Change in net unrealized investment gains (losses) attributable to noncontrolling interests	(6)	(2)	(2)
Change in net unrealized investment gains (losses) attributable to MetLife, Inc.	$ 11,326	$ (5,007)	$ 1,012

Concentrations of Credit Risk

Investments in any counterparty that were greater than 10% of the Company's equity, other than the U.S. government and its agencies, at estimated fair value at December 31, 2019 and 2018, were in fixed income securities of the Japanese government and its agencies of $33.7 billion and $30.2 billion, respectively, and in fixed income securities of the South Korean government and its agencies of $7.3 billion and $7.1 billion, respectively.

Securities Lending, Repurchase Agreements and FHLB of Boston Advance Agreements

Securities, Collateral and Reinvestment Portfolio

A summary of the outstanding securities lending, repurchase agreements and FHLB of Boston short-term advance agreements is as follows:

	December 31,					
	2019			2018		
	Securities (1)			Securities (1)		
	Estimated Fair Value	Cash Collateral Received from Counterparties (2), (3)	Reinvestment Portfolio at Estimated Fair Value	Estimated Fair Value	Cash Collateral Received from Counterparties (2), (3)	Reinvestment Portfolio at Estimated Fair Value
			(In millions)			
Securities lending	$ 16,926	$ 17,369	$ 17,451	$ 17,724	$ 18,005	$ 18,074
Repurchase agreements	$ 2,333	$ 2,310	$ 2,320	$ 1,093	$ 1,067	$ 1,069
FHLB of Boston advance agreements	$ 1,083	$ 800	$ 843	$ 1,200	$ 800	$ 799

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(1) Securities on loan or securities pledged in connection with these programs are included within fixed maturities securities AFS, short-term investments and cash equivalents.

8. Investments (continued)

(2) In connection with securities lending, in addition to cash collateral received, the Company received from counterparties security collateral of $0 and $78 million at December 31, 2019 and 2018, respectively, which may not be sold or re-pledged, unless the counterparty is in default, and is not reflected on the consolidated financial statements.

(3) The liability for cash collateral for these programs is included within payables for collateral under securities loaned, other transactions and other liabilities.

Contractual Maturities

A summary of the remaining contractual maturities of securities lending, repurchase agreements and FHLB of Boston short-term advance agreements is as follows:

	December 31,									
	2019					2018				
	Remaining Maturities					Remaining Maturities				
	Open (1)	1 Month or Less	Over 1 to 6 Months	Over 6 Months to 1 Year	Total	Open (1)	1 Month or Less	Over 1 to 6 Months	Over 6 Months to 1 Year	Total
	(In millions)									
Cash collateral liability by loaned security type:										
Securities lending:										
U.S. government and agency	$ 2,928	$ 6,676	$ 6,663	$ —	$16,267	$ 2,736	$ 8,995	$ 5,220	$ —	$16,951
Foreign government	—	259	767	—	1,026	—	214	761	—	975
Agency RMBS	—	76	—	—	76	—	79	—	—	79
Total securities lending	$ 2,928	$ 7,011	$ 7,430	$ —	$17,369	$ 2,736	$ 9,288	$ 5,981	$ —	$18,005
Cash collateral liability by loaned security type:										
Repurchase agreements:										
U.S. government and agency	$ —	$ 2,310	$ —	$ —	$ 2,310	$ —	$ 1,000	$ —	$ —	$ 1,000
All other corporate and government	—	—	—	—	—	—	—	67	—	67
Total repurchase agreements	$ —	$ 2,310	$ —	$ —	$ 2,310	$ —	$ 1,000	$ 67	$ —	$ 1,067
Cash collateral liability by pledged security type: (2)										
FHLB of Boston:										
Municipals	$ —	$ 250	$ 475	$ 75	$ 800	$ —	$ 150	$ 650	$ —	$ 800

(1) The related loaned security could be returned to the Company on the next business day, which would require the Company to immediately return the cash collateral.

(2) The Company is permitted to withdraw any portion of the pledged collateral over the minimum collateral requirement at any time, other than in the event of a default by the Company.

If the Company is required to return significant amounts of cash collateral on short notice and is forced to sell securities to meet the return obligation, it may have difficulty selling such collateral that is invested in securities in a timely manner, be forced to sell securities in a volatile or illiquid market for less than what otherwise would have been realized under normal market conditions, or both.

8. Investments (continued)

The securities lending, repurchase agreements and FHLB of Boston short-term advance agreements reinvestment portfolios consist principally of high quality, liquid, publicly-traded fixed maturity securities AFS, short-term investments, cash equivalents or cash. If the securities on loan, securities pledged or the reinvestment portfolio become less liquid, liquidity resources within the general account are available to meet any potential cash demands when securities on loan or securities pledged are put back by the counterparty.

Invested Assets on Deposit, Held in Trust and Pledged as Collateral

Invested assets on deposit, held in trust and pledged as collateral are presented below at estimated fair value for all asset classes, except mortgage loans, which are presented at carrying value at:

	December 31,	
	2019	2018
	(In millions)	
Invested assets on deposit (regulatory deposits)	$ 2,034	$ 1,788
Invested assets held in trust (collateral financing arrangement and reinsurance agreements)	2,991	2,971
Invested assets pledged as collateral (1)	24,493	24,168
Total invested assets on deposit, held in trust and pledged as collateral	$ 29,518	$ 28,927

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(1) The Company has pledged invested assets in connection with various agreements and transactions, including funding agreements (see Note 4), derivative transactions (see Note 9), secured debt (see Note 13), and a collateral financing arrangement (see Note 14).

See "— Securities Lending, Repurchase Agreements and FHLB of Boston Advance Agreements" for information regarding securities supporting securities lending, repurchase agreement transactions and FHLB of Boston short-term advance agreements and Note 7 for information regarding investments designated to the closed block. In addition, the Company's investment in FHLB common stock, which is considered restricted until redeemed by the issuers, was $809 million and $793 million, at redemption value, at December 31, 2019 and 2018, respectively.

Purchased Credit Impaired Investments

Investments acquired with evidence of credit quality deterioration since origination and for which it is probable at the acquisition date that the Company will be unable to collect all contractually required payments are classified as purchased credit impaired ("PCI") investments. For each investment, the excess of the cash flows expected to be collected as of the acquisition date over its acquisition date fair value is referred to as the accretable yield and is recognized in net investment income on an effective yield basis. If, subsequently, based on current information and events, it is probable that there is a significant increase in cash flows previously expected to be collected or if actual cash flows are significantly greater than cash flows previously expected to be collected, the accretable yield is adjusted prospectively. The excess of the contractually required payments (including interest) as of the acquisition date over the cash flows expected to be collected as of the acquisition date is referred to as the nonaccretable difference, and this amount is not expected to be realized in net investment income. Decreases in cash flows expected to be collected can result in OTTI.

The Company's PCI investments had an outstanding principal balance of $3.3 billion and $4.0 billion at December 31, 2019 and 2018, respectively, which represents the contractually required principal and accrued interest payments whether or not currently due and a carrying value (estimated fair value of the investments plus accrued interest) of $2.7 billion and $3.3 billion at December 31, 2019 and 2018, respectively. Accretion of accretable yield on PCI investments recognized in earnings in net investment income was $178 million and $275 million for the years ended December 31, 2019 and 2018, respectively. Purchases of PCI investments were insignificant in both of the years ended December 31, 2019 and 2018.

8. Investments (continued)

Collectively Significant Equity Method Investments

The Company holds investments in real estate joint ventures, real estate funds and other limited partnership interests consisting of leveraged buy-out funds, hedge funds, private equity funds, joint ventures and other funds. The portion of these investments accounted for under the equity method had a carrying value of $15.6 billion at December 31, 2019. The Company's maximum exposure to loss related to these equity method investments is limited to the carrying value of these investments plus unfunded commitments of $6.1 billion at December 31, 2019. Except for certain real estate joint ventures and certain funds, the Company's investments in its remaining real estate funds and other limited partnership interests are generally of a passive nature in that the Company does not participate in the management of the entities.

As described in Note 1, the Company generally records its share of earnings in its equity method investments using a three-month lag methodology and within net investment income. Aggregate net investment income from these equity method investments exceeded 10% of the Company's consolidated pre-tax income (loss) from continuing operations for two of the three most recent annual periods: 2019 and 2017. The Company is providing the following aggregated summarized financial data for such equity method investments, for the most recent annual periods, in order to provide comparative information. This aggregated summarized financial data does not represent the Company's proportionate share of the assets, liabilities, or earnings of such entities.

The aggregated summarized financial data presented below reflects the latest available financial information and is as of, and for, the years ended December 31, 2019, 2018 and 2017. Aggregate total assets of these entities totaled $585.3 billion and $529.1 billion at December 31, 2019 and 2018, respectively. Aggregate total liabilities of these entities totaled $86.1 billion and $65.5 billion at December 31, 2019 and 2018, respectively. Aggregate net income (loss) of these entities totaled $47.0 billion, $52.5 billion and $37.9 billion for the years ended December 31, 2019, 2018 and 2017, respectively. Aggregate net income (loss) from the underlying entities in which the Company invests is primarily comprised of investment income, including recurring investment income and realized and unrealized investment gains (losses).

Variable Interest Entities

The Company has invested in legal entities that are VIEs. In certain instances, the Company holds both the power to direct the most significant activities of the entity, as well as an economic interest in the entity and, as such, is deemed to be the primary beneficiary or consolidator of the entity. The determination of the VIE's primary beneficiary requires an evaluation of the contractual and implied rights and obligations associated with each party's relationship with or involvement in the entity, an estimate of the entity's expected losses and expected residual returns and the allocation of such estimates to each party involved in the entity.

Consolidated VIEs

Creditors or beneficial interest holders of VIEs where the Company is the primary beneficiary have no recourse to the general credit of the Company, as the Company's obligation to the VIEs is limited to the amount of its committed investment.

The following table presents the total assets and total liabilities relating to investment related VIEs for which the Company has concluded that it is the primary beneficiary and which are consolidated at:

	December 31,			
	2019		2018	
	Total Assets	Total Liabilities	Total Assets	Total Liabilities
	(In millions)			
Renewable energy partnership (1)	$ 94	$ —	$ 102	$ —
Investment funds (2)	207	1	79	1
Other investments (1)	10	5	21	5
Total	$ 311	$ 6	$ 202	$ 6

(1) Assets of the renewable energy partnership and other investments primarily consisted of other invested assets.

(2) Assets of the investment funds primarily consisted of other invested assets at December 31, 2019 and cash and cash equivalents at December 31, 2018.

8. Investments (continued)

Unconsolidated VIEs

The carrying amount and maximum exposure to loss relating to VIEs in which the Company holds a significant variable interest but is not the primary beneficiary and which have not been consolidated were as follows at:

	December 31,			
	2019		2018	
	Carrying Amount	Maximum Exposure to Loss (1)	Carrying Amount	Maximum Exposure to Loss (1)
	(In millions)			
Fixed maturity securities AFS:				
Structured Products (2)	$ 51,962	$ 51,962	$ 47,874	$ 47,874
U.S. and foreign corporate	1,764	1,764	932	932
Foreign government	136	136	—	—
Other limited partnership interests	6,674	12,016	5,641	9,888
Other invested assets	1,495	1,621	1,906	2,063
Other investments	450	497	296	300
Total	$ 62,481	$ 67,996	$ 56,649	$ 61,057

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(1) The maximum exposure to loss relating to fixed maturity securities AFS is equal to their carrying amounts or the carrying amounts of retained interests. The maximum exposure to loss relating to other limited partnership interests is equal to the carrying amounts plus any unfunded commitments. For certain of its investments in other invested assets, the Company's return is in the form of income tax credits which are guaranteed by creditworthy third parties. For such investments, the maximum exposure to loss is equal to the carrying amounts plus any unfunded commitments, reduced by income tax credits guaranteed by third parties of $6 million and $94 million at December 31, 2019 and 2018, respectively. Such a maximum loss would be expected to occur only upon bankruptcy of the issuer or investee.

(2) For these variable interests, the Company's involvement is limited to that of a passive investor in mortgage-backed or asset-backed securities issued by trusts that do not have substantial equity.

As described in Note 21, the Company makes commitments to fund partnership investments in the normal course of business. Excluding these commitments, the Company did not provide financial or other support to investees designated as VIEs for each of the years ended December 31, 2019, 2018 and 2017.

The Company securitizes certain residential mortgage loans and acquires an interest in the related RMBS issued. While the Company has a variable interest in the issuer of the securities, it is not the primary beneficiary of the issuer of the securities since it does not have any rights to remove the servicer or veto rights over the servicer's actions. The resulting gain (loss) from the securitization is included within net investment gains (losses). The estimated fair value of the related RMBS acquired in connection with the securitizations is included in the carrying amount and maximum exposure to loss for Structured Products presented in the table above.

The carrying value and the estimated fair value of mortgage loans were $443 million and $467 million, respectively, for loans sold during 2019, and $451 million and $478 million, respectively, for loans sold during 2018. Gains on securitizations of $24 million and $27 million for the years ended December 31, 2019 and 2018, respectively, were included within net investment gains (losses). The estimated fair value of RMBS acquired in connection with the securitizations was $131 million and $98 million at December 31, 2019 and 2018, respectively.

See Note 10 for information on how the estimated fair value of mortgage loans and RMBS is determined, the valuation approaches and key inputs, their placement in the fair value hierarchy, and for certain RMBS, quantitative information about the significant unobservable inputs and the sensitivity of their estimated fair value to changes in those inputs.

8. Investments (continued)

Net Investment Income

The components of net investment income were as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Investment income:			
Fixed maturity securities AFS	$ 11,886	$ 11,946	$ 11,497
Equity securities	61	64	129
FVO Securities (1)	184	51	68
Mortgage loans	3,782	3,340	3,082
Policy loans	512	506	517
Real estate and real estate joint ventures	676	694	646
Other limited partnership interests	825	731	798
Cash, cash equivalents and short-term investments	457	387	228
Operating joint ventures	84	51	28
Other	348	364	192
Subtotal	18,815	18,134	17,185
Less: Investment expenses	1,422	1,285	1,122
Subtotal, net	17,393	16,849	16,063
Unit-linked investments (1)	1,475	(683)	1,300
Net investment income	$ 18,868	$ 16,166	$ 17,363

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(1) Changes in estimated fair value subsequent to purchase for investments still held as of the end of the respective periods included in net investment income were principally from Unit-linked investments, and were $1.0 billion, ($771) million and $662 million for the years ended December 31, 2019, 2018 and 2017, respectively.

The Company invests in real estate joint ventures, other limited partnership interests and tax credit and renewable energy partnerships, and also does business through certain operating joint ventures, the majority of which are accounted for under the equity method. Net investment income (i) from other limited partnership interests and operating joint ventures, accounted for under the equity method, and (ii) real estate joint ventures and tax credit and renewable energy partnerships, primarily accounted for under the equity method, totaled $795 million, $592 million and $495 million for the years ended December 31, 2019, 2018 and 2017, respectively.

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8. Investments (continued)

Net Investment Gains (Losses)

Components of Net Investment Gains (Losses)

The components of net investment gains (losses) were as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Total gains (losses) on fixed maturity securities AFS:			
Total OTTI losses recognized — by sector and industry:			
U.S. and foreign corporate securities — by industry:			
Consumer	$ (23)	$ (20)	$ (4)
Finance	(1)	(9)	—
Industrial	(22)	(2)	—
Total U.S. and foreign corporate securities	(46)	(31)	(4)
Foreign government	(81)	(9)	—
ABS	—	—	(3)
RMBS	(2)	—	—
Municipals	—	—	(3)
OTTI losses on fixed maturity securities AFS recognized in earnings	(129)	(40)	(10)
Fixed maturity securities AFS — net gains (losses) on sales and disposals (1)	396	45	328
Total gains (losses) on fixed maturity securities AFS	267	5	318
Total gains (losses) on equity securities:			
Total OTTI losses recognized — by security type:			
Common stock	—	—	(24)
Non-redeemable preferred stock	—	—	(1)
OTTI losses on equity securities recognized in earnings	—	—	(25)
Equity securities — net gains (losses) on sales and disposals	50	118	117
Change in estimated fair value of equity securities (2)	84	(193)	—
Total gains (losses) on equity securities	134	(75)	92
Mortgage loans (1)	(11)	(56)	14
Real estate and real estate joint ventures	399	326	603
Other limited partnership interests	6	9	(59)
Other (3)	(142)	(169)	(113)
Subtotal	653	40	855
Change in estimated fair value of other limited partnership interests	(14)	12	—
Non-investment portfolio gains (losses) (4), (5)	(195)	(350)	(1,162)
Other	—	—	(1)
Subtotal	(209)	(338)	(1,163)
Total net investment gains (losses)	$ 444	$ (298)	$ (308)

(1) Fixed maturity securities AFS — net gains (losses) on sales and disposals and mortgage loans for the year ended December 31, 2017, included $276 million and $47 million, respectively, in previously deferred gains on prior period transfers of such investments to Brighthouse. Such gains are no longer eliminated in consolidation after the Separation. See Note 3.

8. Investments (continued)

(2) Changes in estimated fair value subsequent to purchase for equity securities still held as of the end of the period included in net investment gains (losses) were $122 million and ($81) million for the years ended December 31, 2019 and 2018, respectively.

(3) Other gains (losses) included tax credit partnership impairment losses of $92 million, leveraged lease impairment losses of $30 million and a renewable energy partnership disposal gain of $46 million for the year ended December 31, 2019. Other gains (losses) included renewable energy partnership disposal losses of $83 million and leveraged lease impairment losses of $105 million for the year ended December 31, 2018. Other gains (losses) included leveraged lease impairment losses of $79 million for the year ended December 31, 2017.

(4) Non-investment portfolio gains (losses) for the year ended December 31, 2018 includes a loss of $327 million which represents both the change in estimated fair value of FVO Brighthouse Common Stock held by the Company through the date of disposal and the loss on disposal in June 2018. Non-investment portfolio gains (losses) for the year ended December 31, 2017 included (i) a loss of $1,016 million which represents a mark-to-market loss on the Company's retained investment in Brighthouse Financial, Inc. at Separation and (ii) a loss of $95 million which represents the change in estimated fair value of FVO Brighthouse Common Stock held by the Company from the date of Separation to December 31, 2017. See Note 3.

(5) Non-investment portfolio gains (losses) for the year ended December 31, 2017 includes a $98 million loss due to the disposition of MetLife Afore. See Note 3.

Gains (losses) from foreign currency transactions included within net investment gains (losses) were ($124) million, ($16) million and ($6) million for the years ended December 31, 2019, 2018 and 2017, respectively.

Sales or Disposals and Impairments of Fixed Maturity Securities AFS

Sales of securities are determined on a specific identification basis. Proceeds from sales or disposals and the components of net investment gains (losses) were as shown in the table below:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Proceeds	$ 51,052	$ 85,058	$ 56,509
Gross investment gains	$ 889	$ 856	$ 753
Gross investment (losses)	(493)	(811)	(425)
OTTI losses	(129)	(40)	(10)
Net investment gains (losses)	$ 267	$ 5	$ 318

Credit Loss Rollforward of Fixed Maturity Securities AFS

The table below presents a rollforward of the cumulative credit loss component of OTTI loss recognized in earnings on fixed maturity securities AFS still held for which a portion of the OTTI loss was recognized in OCI:

	Years Ended December 31,	
	2019	2018
	(In millions)	
Balance at January 1,	$ 89	$ 138
Sales (maturities, pay downs or prepayments) of securities previously impaired as credit loss OTTI	(16)	(47)
Increase in cash flows — accretion of previous credit loss OTTI	(1)	(2)
Balance at December 31,	$ 72	$ 89

9. Derivatives

Accounting for Derivatives

See Note 1 for a description of the Company's accounting policies for derivatives and Note 10 for information about the fair value hierarchy for derivatives.

Derivative Strategies

The Company is exposed to various risks relating to its ongoing business operations, including interest rate, foreign currency exchange rate, credit and equity market. The Company uses a variety of strategies to manage these risks, including the use of derivatives.

Derivatives are financial instruments with values derived from interest rates, foreign currency exchange rates, credit spreads and/or other financial indices. Derivatives may be exchange-traded or contracted in the over-the-counter ("OTC") market. Certain of the Company's OTC derivatives are cleared and settled through central clearing counterparties ("OTC-cleared"), while others are bilateral contracts between two counterparties ("OTC-bilateral"). The types of derivatives the Company uses include swaps, forwards, futures and option contracts. To a lesser extent, the Company uses credit default swaps and structured interest rate swaps to synthetically replicate investment risks and returns which are not readily available in the cash markets.

Interest Rate Derivatives

The Company uses a variety of interest rate derivatives to reduce its exposure to changes in interest rates, including interest rate swaps, interest rate total return swaps, caps, floors, swaptions, futures and forwards.

Interest rate swaps are used by the Company primarily to reduce market risks from changes in interest rates and to alter interest rate exposure arising from mismatches between assets and liabilities (duration mismatches). In an interest rate swap, the Company agrees with another party to exchange, at specified intervals, the difference between fixed rate and floating rate interest amounts as calculated by reference to an agreed notional amount. The Company utilizes interest rate swaps in fair value, cash flow and nonqualifying hedging relationships.

The Company uses structured interest rate swaps to synthetically create investments that are either more expensive to acquire or otherwise unavailable in the cash markets. These transactions are a combination of a derivative and a cash instrument such as a U.S. government and agency, or other fixed maturity securities AFS. Structured interest rate swaps are included in interest rate swaps and are not designated as hedging instruments.

Interest rate total return swaps are swaps whereby the Company agrees with another party to exchange, at specified intervals, the difference between the economic risk and reward of an asset or a market index and a benchmark interest rate, calculated by reference to an agreed notional amount. No cash is exchanged at the outset of the contract. Cash is paid and received over the life of the contract based on the terms of the swap. These transactions are entered into pursuant to master agreements that provide for a single net payment to be made by the counterparty at each due date. Interest rate total return swaps are used by the Company to reduce market risks from changes in interest rates and to alter interest rate exposure arising from mismatches between assets and liabilities (duration mismatches). The Company utilizes interest rate total return swaps in nonqualifying hedging relationships.

The Company purchases interest rate caps primarily to protect its floating rate liabilities against rises in interest rates above a specified level, and against interest rate exposure arising from mismatches between assets and liabilities, and interest rate floors primarily to protect its minimum rate guarantee liabilities against declines in interest rates below a specified level. In certain instances, the Company locks in the economic impact of existing purchased caps and floors by entering into offsetting written caps and floors. The Company utilizes interest rate caps and floors in nonqualifying hedging relationships.

In exchange-traded interest rate (Treasury and swap) futures transactions, the Company agrees to purchase or sell a specified number of contracts, the value of which is determined by the different classes of interest rate securities, to post variation margin on a daily basis in an amount equal to the difference in the daily market values of those contracts and to pledge initial margin based on futures exchange requirements. The Company enters into exchange-traded futures with regulated futures commission merchants that are members of the exchange. Exchange-traded interest rate (Treasury and swap) futures are used primarily to hedge mismatches between the duration of assets in a portfolio and the duration of liabilities supported by those assets, to hedge against changes in value of securities the Company owns or anticipates acquiring, to hedge against changes in interest rates on anticipated liability issuances by replicating Treasury or swap curve performance, and to hedge minimum guarantees embedded in certain variable annuity products issued by the Company. The Company utilizes exchange-traded interest rate futures in nonqualifying hedging relationships.

9. Derivatives (continued)

Swaptions are used by the Company to hedge interest rate risk associated with the Company's long-term liabilities and invested assets. A swaption is an option to enter into a swap with a forward starting effective date. In certain instances, the Company locks in the economic impact of existing purchased swaptions by entering into offsetting written swaptions. The Company pays a premium for purchased swaptions and receives a premium for written swaptions. The Company utilizes swaptions in nonqualifying hedging relationships. Swaptions are included in interest rate options.

The Company enters into interest rate forwards to buy and sell securities. The price is agreed upon at the time of the contract and payment for such a contract is made at a specified future date. The Company utilizes interest rate forwards in cash flow and nonqualifying hedging relationships.

A synthetic GIC is a contract that simulates the performance of a traditional GIC through the use of financial instruments. The policyholder owns the underlying assets, and the Company provides a guarantee (or "wrap") on the participant funds for an annual risk charge. The Company's maximum exposure to loss on synthetic GICs is the notional amount, in the event the values of all of the underlying assets were reduced to zero. The Company's risk is substantially lower due to contractual provisions that limit the portfolio to high quality assets, which are pre-approved and monitored for compliance, as well as the collection of risk charges. In addition, the crediting rates reset periodically to amortize market value gains and losses over a period equal to the duration of the wrapped portfolio, subject to a 0% floor. While plan participants may transact at book value, contract holder withdrawals may only occur immediately at market value, or at book value paid over a period of time per contract provisions. Synthetic GICs are not designated as hedging instruments.

Foreign Currency Exchange Rate Derivatives

The Company uses foreign currency exchange rate derivatives, including foreign currency swaps, foreign currency forwards, currency options and exchange-traded currency futures, to reduce the risk from fluctuations in foreign currency exchange rates associated with its assets and liabilities denominated in foreign currencies. The Company also uses foreign currency derivatives to hedge the foreign currency exchange rate risk associated with certain of its net investments in foreign operations.

In a foreign currency swap transaction, the Company agrees with another party to exchange, at specified intervals, the difference between one currency and another at a fixed exchange rate, generally set at inception, calculated by reference to an agreed upon notional amount. The notional amount of each currency is exchanged at the inception and termination of the currency swap by each party. The Company utilizes foreign currency swaps in fair value, cash flow and nonqualifying hedging relationships.

In a foreign currency forward transaction, the Company agrees with another party to deliver a specified amount of an identified currency at a specified future date. The price is agreed upon at the time of the contract and payment for such a contract is made at the specified future date. The Company utilizes foreign currency forwards in fair value, NIFO hedges and nonqualifying hedging relationships.

The Company enters into currency options that give it the right, but not the obligation, to sell the foreign currency amount in exchange for a functional currency amount within a limited time at a contracted price. The contracts may also be net settled in cash, based on differentials in the foreign currency exchange rate and the strike price. The Company uses currency options to hedge against the foreign currency exposure inherent in certain of its variable annuity products. The Company also uses currency options as an economic hedge of foreign currency exposure related to the Company's non-U.S. subsidiaries. The Company utilizes currency options in NIFO hedges and nonqualifying hedging relationships.

To a lesser extent, the Company uses exchange-traded currency futures to hedge currency mismatches between assets and liabilities, and to hedge minimum guarantees embedded in certain variable annuity products issued by the Company. The Company utilizes exchange-traded currency futures in nonqualifying hedging relationships.

Credit Derivatives

The Company enters into purchased credit default swaps to hedge against credit-related changes in the value of its investments. In a credit default swap transaction, the Company agrees with another party to pay, at specified intervals, a premium to hedge credit risk. If a credit event occurs, as defined by the contract, the contract may be cash settled or it may be settled gross by the delivery of par quantities of the referenced investment equal to the specified swap notional amount in exchange for the payment of cash amounts by the counterparty equal to the par value of the investment surrendered. Credit events vary by type of issuer but typically include bankruptcy, failure to pay debt obligations and involuntary restructuring for corporate obligors, as well as repudiation, moratorium or governmental intervention for sovereign obligors. In each case, payout on a credit default swap is triggered only after the Credit Derivatives Determinations Committee of the International Swaps and Derivatives Association, Inc. ("ISDA") deems that a credit event has occurred. The Company utilizes credit default swaps in nonqualifying hedging relationships.

The Company enters into written credit default swaps to synthetically create credit investments that are either more expensive to acquire or otherwise unavailable in the cash markets. These transactions are a combination of a derivative and one or more cash instruments, such as U.S. government and agency, or other fixed maturity securities AFS. These credit default swaps are not designated as hedging instruments.

The Company enters into forwards to lock in the price to be paid for forward purchases of certain securities. The price is agreed upon at the time of the contract and payment for the contract is made at a specified future date. When the primary purpose of entering into these transactions is to hedge against the risk of changes in purchase price due to changes in credit spreads, the Company designates these transactions as credit forwards. The Company utilizes credit forwards in cash flow hedging relationships.

Equity Derivatives

The Company uses a variety of equity derivatives to reduce its exposure to equity market risk, including equity index options, equity variance swaps, exchange-traded equity futures and equity total return swaps.

Equity index options are used by the Company primarily to hedge minimum guarantees embedded in certain variable annuity products issued by the Company. To hedge against adverse changes in equity indices, the Company enters into contracts to sell the underlying equity index within a limited time at a contracted price. The contracts will be net settled in cash based on differentials in the indices at the time of exercise and the strike price. Certain of these contracts may also contain settlement provisions linked to interest rates. In certain instances, the Company may enter into a combination of transactions to hedge adverse changes in equity indices within a pre-determined range through the purchase and sale of options. The Company utilizes equity index options in nonqualifying hedging relationships.

Equity variance swaps are used by the Company primarily to hedge minimum guarantees embedded in certain variable annuity products issued by the Company. In an equity variance swap, the Company agrees with another party to exchange amounts in the future, based on changes in equity volatility over a defined period. The Company utilizes equity variance swaps in nonqualifying hedging relationships.

In exchange-traded equity futures transactions, the Company agrees to purchase or sell a specified number of contracts, the value of which is determined by the different classes of equity securities, to post variation margin on a daily basis in an amount equal to the difference in the daily market values of those contracts and to pledge initial margin based on futures exchange requirements. The Company enters into exchange-traded futures with regulated futures commission merchants that are members of the exchange. Exchange-traded equity futures are used primarily to hedge minimum guarantees embedded in certain variable annuity products issued by the Company. The Company utilizes exchange-traded equity futures in nonqualifying hedging relationships.

In an equity total return swap, the Company agrees with another party to exchange, at specified intervals, the difference between the economic risk and reward of an asset or a market index and a benchmark interest rate, calculated by reference to an agreed notional amount. No cash is exchanged at the outset of the contract. Cash is paid and received over the life of the contract based on the terms of the swap. The Company uses equity total return swaps to hedge its equity market guarantees in certain of its insurance products. Equity total return swaps can be used as hedges or to synthetically create investments. The Company utilizes equity total return swaps in nonqualifying hedging relationships.

9. Derivatives (continued)

Primary Risks Managed by Derivatives

The following table presents the primary underlying risk exposure, gross notional amount, and estimated fair value of the Company's derivatives, excluding embedded derivatives, held at:

		December 31,					
		2019			2018		
			Estimated Fair Value			Estimated Fair Value	
	Primary Underlying Risk Exposure	Gross Notional Amount	Assets	Liabilities	Gross Notional Amount	Assets	Liabilities
		(In millions)					
Derivatives Designated as Hedging Instruments:							
Fair value hedges:							
Interest rate swaps	Interest rate	$ 2,369	$ 2,667	$ 2	$ 2,446	$ 2,197	$ 2
Foreign currency swaps	Foreign currency exchange rate	1,304	16	17	1,233	54	—
Foreign currency forwards	Foreign currency exchange rate	2,336	1	40	2,140	28	18
Subtotal		6,009	2,684	59	5,819	2,279	20
Cash flow hedges:							
Interest rate swaps	Interest rate	3,675	145	27	3,515	143	1
Interest rate forwards	Interest rate	7,364	83	144	3,022	—	216
Foreign currency swaps	Foreign currency exchange rate	36,983	1,627	1,430	35,931	1,796	1,831
Subtotal		48,022	1,855	1,601	42,468	1,939	2,048
NIFO hedges:							
Foreign currency forwards	Foreign currency exchange rate	1,059	—	10	960	4	27
Currency options	Foreign currency exchange rate	4,200	33	91	5,137	3	202
Subtotal		5,259	33	101	6,097	7	229
Total qualifying hedges		59,290	4,572	1,761	54,384	4,225	2,297
Derivatives Not Designated or Not Qualifying as Hedging Instruments:							
Interest rate swaps	Interest rate	58,083	2,867	185	54,891	1,796	175
Interest rate floors	Interest rate	12,701	155	—	12,701	102	—
Interest rate caps	Interest rate	42,622	18	5	54,575	154	1
Interest rate futures	Interest rate	2,423	2	3	2,353	1	3
Interest rate options	Interest rate	27,344	764	1	26,690	416	—
Interest rate forwards	Interest rate	129	1	2	234	1	15
Interest rate total return swaps	Interest rate	1,048	5	49	1,048	33	2
Synthetic GICs	Interest rate	30,341	—	—	25,700	—	—
Foreign currency swaps	Foreign currency exchange rate	13,699	644	461	11,388	884	458
Foreign currency forwards	Foreign currency exchange rate	13,507	50	393	13,417	198	213
Currency futures	Foreign currency exchange rate	880	7	—	847	4	—
Currency options	Foreign currency exchange rate	1,801	—	—	2,040	7	—
Credit default swaps — purchased	Credit	2,944	4	102	1,903	25	39
Credit default swaps — written	Credit	11,520	272	1	11,391	95	13
Equity futures	Equity market	4,540	6	8	2,992	13	77
Equity index options	Equity market	27,105	694	677	27,707	884	550
Equity variance swaps	Equity market	1,115	23	19	2,269	40	87
Equity total return swaps	Equity market	761	—	70	929	91	—
Total non-designated or nonqualifying derivatives		252,563	5,512	1,976	253,075	4,744	1,633
Total		$ 311,853	$10,084	$ 3,737	$ 307,459	$ 8,969	$ 3,930

9. Derivatives (continued)

Based on gross notional amounts, a substantial portion of the Company's derivatives was not designated or did not qualify as part of a hedging relationship at both December 31, 2019 and 2018. The Company's use of derivatives includes (i) derivatives that serve as macro hedges of the Company's exposure to various risks and that generally do not qualify for hedge accounting due to the criteria required under the portfolio hedging rules; (ii) derivatives that economically hedge insurance liabilities that contain mortality or morbidity risk and that generally do not qualify for hedge accounting because the lack of these risks in the derivatives cannot support an expectation of a highly effective hedging relationship; (iii) derivatives that economically hedge embedded derivatives that do not qualify for hedge accounting because the changes in estimated fair value of the embedded derivatives are already recorded in net income; and (iv) written credit default swaps and interest rate swaps that are used to synthetically create investments and that do not qualify for hedge accounting because they do not involve a hedging relationship. For these nonqualified derivatives, changes in market factors can lead to the recognition of fair value changes on the statement of operations without an offsetting gain or loss recognized in earnings for the item being hedged.

9. Derivatives (continued)

The Effects of Derivatives on the Consolidated Statements of Operations and Comprehensive Income (Loss)

The following table presents the consolidated financial statement location and amount of gain (loss) recognized on fair value, cash flow, NIFO, nonqualifying hedging relationships and embedded derivatives:

	Year Ended December 31, 2019						
	Net Investment Income	Net Investment Gains (Losses)	Net Derivative Gains (Losses)	Policyholder Benefits and Claims	Interest Credited to Policyholder Account Balances	Other Expenses	OCI
	(In millions)						
Gain (Loss) on Fair Value Hedges:							
Interest rate derivatives:							
Derivatives designated as hedging instruments (1)	$ (3)	$ —	$ —	$ 339	$ 1	$ —	N/A
Hedged items	4	—	—	(369)	—	—	N/A
Foreign currency exchange rate derivatives:							
Derivatives designated as hedging instruments (1)	(55)	24	—	—	—	—	N/A
Hedged items	56	(23)	—	—	—	—	N/A
Amount excluded from the assessment of hedge effectiveness	—	(72)	—	—	—	—	N/A
Subtotal	2	(71)	—	(30)	1	—	N/A
Gain (Loss) on Cash Flow Hedges:							
Interest rate derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	$ 622
Amount of gains (losses) reclassified from AOCI into income	23	4	—	—	—	2	(29)
Foreign currency exchange rate derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	(278)
Amount of gains (losses) reclassified from AOCI into income	(4)	240	—	—	—	2	(238)
Foreign currency transaction gains (losses) on hedged items	—	(236)	—	—	—	—	—
Credit derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	6
Amount of gains (losses) reclassified from AOCI into income	1	—	—	—	—	—	(1)
Subtotal	20	8	—	—	—	4	82
Gain (Loss) on NIFO Hedges:							
Foreign currency exchange rate derivatives (1)	N/A	N/A	N/A	N/A	N/A	N/A	(32)
Non-derivative hedging instruments	N/A	N/A	N/A	N/A	N/A	N/A	(4)
Subtotal	N/A	N/A	N/A	N/A	N/A	N/A	(36)
Gain (Loss) on Derivatives Not Designated or Not Qualifying as Hedging Instruments:							
Interest rate derivatives (1)	(3)	—	1,263	39	—	—	N/A
Foreign currency exchange rate derivatives (1)	—	—	(346)	2	—	—	N/A
Credit derivatives — purchased (1)	—	—	(38)	—	—	—	N/A
Credit derivatives — written (1)	—	—	248	—	—	—	N/A
Equity derivatives (1)	—	—	(1,339)	(205)	—	—	N/A
Foreign currency transaction gains (losses) on hedged items	—	—	55	—	—	—	N/A
Subtotal	(3)	—	(157)	(164)	—	—	N/A
Earned income on derivatives	237	—	513	138	(147)	—	—
Embedded derivatives (2)	N/A	N/A	272	—	N/A	N/A	N/A
Total	$ 256	$ (63)	$ 628	$ (56)	$ (146)	$ 4	$ 46

MetLife, Inc.

Notes to the Consolidated Financial Statements — (continued)

9. Derivatives (continued)

	Year Ended December 31, 2018						
	Net Investment Income	Net Investment Gains (Losses)	Net Derivative Gains (Losses)	Policyholder Benefits and Claims	Interest Credited to Policyholder Account Balances	Other Expenses	OCI
	(In millions)						
Gain (Loss) on Fair Value Hedges:							
Interest rate derivatives:							
Derivatives designated as hedging instruments (1)	$ —	$ —	$ (220)	$ —	$ —	$ —	N/A
Hedged items	—	—	226	—	—	—	N/A
Foreign currency exchange rate derivatives:							
Derivatives designated as hedging instruments (1)	—	—	156	—	—	—	N/A
Hedged items	—	—	(150)	—	—	—	N/A
Amount excluded from the assessment of hedge effectiveness	—	—	(58)	—	—	—	N/A
Subtotal	—	—	(46)	—	—	—	N/A
Gain (Loss) on Cash Flow Hedges:							
Interest rate derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	$ (257)
Amount of gains (losses) reclassified from AOCI into income	20	—	21	—	—	1	(42)
Foreign currency exchange rate derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	414
Amount of gains (losses) reclassified from AOCI into income	(5)	—	(558)	—	—	2	561
Foreign currency transaction gains (losses) on hedged items	—	—	569	—	—	—	—
Credit derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	—
Amount of gains (losses) reclassified from AOCI into income	1	—	1	—	—	—	(2)
Subtotal	16	—	33	—	—	3	674
Gain (Loss) on NIFO Hedges:							
Foreign currency exchange rate derivatives (1)	N/A	N/A	N/A	N/A	N/A	N/A	(125)
Non-derivative hedging instruments	N/A	N/A	N/A	N/A	N/A	N/A	—
Subtotal	N/A	N/A	N/A	N/A	N/A	N/A	(125)
Gain (Loss) on Derivatives Not Designated or Not Qualifying as Hedging Instruments:							
Interest rate derivatives (1)	4	—	(158)	(6)	—	—	N/A
Foreign currency exchange rate derivatives (1)	—	—	518	(6)	—	—	N/A
Credit derivatives — purchased (1)	—	—	6	—	—	—	N/A
Credit derivatives — written (1)	—	—	(132)	—	—	—	N/A
Equity derivatives (1)	1	—	360	60	—	—	N/A
Foreign currency transaction gains (losses) on hedged items	—	—	(127)	—	—	—	N/A
Subtotal	5	—	467	48	—	—	N/A
Earned income on derivatives	360	—	547	11	(113)	(11)	—
Embedded derivatives (2)	N/A	N/A	(150)	—	N/A	N/A	N/A
Total	$ 381	$ —	$ 851	$ 59	$ (113)	$ (8)	$ 549

9. Derivatives (continued)

	Year Ended December 31, 2017						
	Net Investment Income	Net Investment Gains (Losses)	Net Derivative Gains (Losses)	Policyholder Benefits and Claims	Interest Credited to Policyholder Account Balances	Other Expenses	OCI
	(In millions)						
Gain (Loss) on Fair Value Hedges:							
Interest rate derivatives:							
Derivatives designated as hedging instruments (1)	$ —	$ —	$ (65)	$ —	$ —	$ —	N/A
Hedged items	—	—	130	—	—	—	N/A
Foreign currency exchange rate derivatives:							
Derivatives designated as hedging instruments (1)	—	—	51	—	—	—	N/A
Hedged items	—	—	(26)	—	—	—	N/A
Amount excluded from the assessment of hedge effectiveness	—	—	(40)	—	—	—	N/A
Subtotal	—	—	50	—	—	—	N/A
Gain (Loss) on Cash Flow Hedges:							
Interest rate derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	$ 288
Amount of gains (losses) reclassified from AOCI into income	18	—	13	—	—	1	(32)
Foreign currency exchange rate derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	(335)
Amount of gains (losses) reclassified from AOCI into income	—	—	974	—	—	2	(976)
Foreign currency transaction gains (losses) on hedged items	—	—	(960)	—	—	—	—
Credit derivatives: (1)							
Amount of gains (losses) deferred in AOCI	N/A	N/A	N/A	N/A	N/A	N/A	—
Amount of gains (losses) reclassified from AOCI into income	—	—	1	—	—	—	(1)
Subtotal	18	—	28	—	—	3	(1,056)
Gain (Loss) on NIFO Hedges:							
Foreign currency exchange rate derivatives (1)	N/A	N/A	N/A	N/A	N/A	N/A	(445)
Non-derivative hedging instruments	N/A	N/A	N/A	N/A	N/A	N/A	—
Subtotal	N/A	N/A	N/A	N/A	N/A	N/A	(445)
Gain (Loss) on Derivatives Not Designated or Not Qualifying as Hedging Instruments:							
Interest rate derivatives (1)	1	—	(549)	(1)	—	—	N/A
Foreign currency exchange rate derivatives (1)	—	—	(742)	5	—	—	N/A
Credit derivatives — purchased (1)	—	—	(24)	—	—	—	N/A
Credit derivatives — written (1)	—	—	145	—	—	—	N/A
Equity derivatives (1)	(9)	—	(1,046)	(252)	—	—	N/A
Foreign currency transaction gains (losses) on hedged items	—	—	198	—	—	—	N/A
Subtotal	(8)	—	(2,018)	(248)	—	—	N/A
Earned income on derivatives	299	—	551	9	(64)	(10)	—
Embedded derivatives (2)	N/A	N/A	799	—	N/A	N/A	N/A
Total	$ 309	$ —	$ (590)	$ (239)	$ (64)	$ (7)	$ (1,501)

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(1) Excludes earned income on derivatives.

(2) The valuation of guaranteed minimum benefits includes a nonperformance risk adjustment. The amounts included in net derivative gains (losses) in connection with this adjustment were ($116) million, $133 million and ($190) million for the years ended December 31, 2019, 2018 and 2017, respectively.

9. Derivatives (continued)

Fair Value Hedges

The Company designates and accounts for the following as fair value hedges when they have met the requirements of fair value hedging: (i) interest rate swaps to convert fixed rate assets and liabilities to floating rate assets and liabilities; (ii) foreign currency swaps to hedge the foreign currency fair value exposure of foreign currency denominated assets and liabilities; and (iii) foreign currency forwards to hedge the foreign currency fair value exposure of foreign currency denominated investments.

The following table presents the balance sheet classification, carrying amount and cumulative fair value hedging adjustments for items designated and qualifying as hedged items in fair value hedges:

	December 31, 2019	
Balance Sheet Line Item	Carrying Amount of the Hedged Assets (Liabilities)	Cumulative Amount of Fair Value Hedging Adjustments Included in the Carrying Amount of Hedged Assets (Liabilities) (1)
	(In millions)	
Fixed maturity securities AFS	$ 2,736	$ (1)
Mortgage loans	$ 1,159	$ 2
Future policy benefits	$ (4,475)	$ (908)

(1) Includes ($1) million of hedging adjustments on discontinued hedging relationships.

For the Company's foreign currency forwards, the change in the estimated fair value of the derivative related to the changes in the difference between the spot price and the forward price is excluded from the assessment of hedge effectiveness. The Company has elected to record changes in estimated fair value of excluded components in earnings. For all other derivatives, all components of each derivative's gain or loss were included in the assessment of hedge effectiveness.

Cash Flow Hedges

The Company designates and accounts for the following as cash flow hedges when they have met the requirements of cash flow hedging: (i) interest rate swaps to convert floating rate assets and liabilities to fixed rate assets and liabilities; (ii) foreign currency swaps to hedge the foreign currency cash flow exposure of foreign currency denominated assets and liabilities; (iii) interest rate forwards and credit forwards to lock in the price to be paid for forward purchases of investments; (iv) interest rate swaps and interest rate forwards to hedge the forecasted purchases of fixed rate investments; and (v) interest rate swaps and interest rate forwards to hedge forecasted fixed rate borrowings.

In certain instances, the Company discontinued cash flow hedge accounting because the forecasted transactions were no longer probable of occurring. Because certain of the forecasted transactions also were not probable of occurring within two months of the anticipated date, the Company reclassified amounts from AOCI into income. These amounts were $58 million, $5 million and $13 million for the years ended December 31, 2019, 2018 and 2017, respectively.

At December 31, 2019 and 2018, the maximum length of time over which the Company was hedging its exposure to variability in future cash flows for forecasted transactions did not exceed eight years and four years, respectively.

At December 31, 2019 and 2018, the balance in AOCI associated with cash flow hedges was $2.2 billion and $2.1 billion, respectively.

All components of each derivative's gain or loss were included in the assessment of hedge effectiveness.

At December 31, 2019, the Company expected to reclassify $37 million of deferred net gains (losses) on derivatives in AOCI to earnings within the next 12 months.

9. Derivatives (continued)

NIFO Hedges

The Company uses foreign currency exchange rate derivatives, which may include foreign currency forwards and currency options, to hedge portions of its net investments in foreign operations against adverse movements in exchange rates. The Company also designates a portion of its foreign-denominated debt as a non-derivative hedging instrument of its net investments in foreign operations. The Company assesses hedge effectiveness of its derivatives based upon the change in forward rates and assesses its non-derivative hedging instruments based upon the change in spot rates. All components of each derivative's gain or loss were included in the assessment of hedge effectiveness.

When net investments in foreign operations are sold or substantially liquidated, the amounts in AOCI are reclassified to the statement of operations.

At December 31, 2019 and 2018, the cumulative foreign currency translation gain (loss) recorded in AOCI related to NIFO hedges was $148 million and $184 million, respectively. At December 31, 2019 and 2018, the carrying amount of debt designated as a non-derivative hedging instrument was $387 million and $0, respectively. See Note 13 for additional information on foreign-denominated debt.

Credit Derivatives

In connection with synthetically created credit investment transactions, the Company writes credit default swaps for which it receives a premium to insure credit risk. Such credit derivatives are included within the nonqualifying derivatives and derivatives for purposes other than hedging table. If a credit event occurs, as defined by the contract, the contract may be cash settled or it may be settled gross by the Company paying the counterparty the specified swap notional amount in exchange for the delivery of par quantities of the referenced credit obligation. The Company's maximum amount at risk, assuming the value of all referenced credit obligations is zero, was $11.5 billion and $11.4 billion at December 31, 2019 and 2018, respectively. The Company can terminate these contracts at any time through cash settlement with the counterparty at an amount equal to the then current estimated fair value of the credit default swaps. At December 31, 2019 and 2018, the Company would have received $271 million and $82 million, respectively, to terminate all of these contracts.

9. Derivatives (continued)

The following table presents the estimated fair value, maximum amount of future payments and weighted average years to maturity of written credit default swaps at:

	December 31,					
	2019			2018		
Rating Agency Designation of Referenced Credit Obligations (1)	Estimated Fair Value of Credit Default Swaps	Maximum Amount of Future Payments under Credit Default Swaps	Weighted Average Years to Maturity (2)	Estimated Fair Value of Credit Default Swaps	Maximum Amount of Future Payments under Credit Default Swaps	Weighted Average Years to Maturity (2)
	(Dollars in millions)					
Aaa/Aa/A						
Single name credit default swaps (3)	$ 4	$ 298	1.7	$ 4	$ 354	1.7
Credit default swaps referencing indices	35	2,175	2.2	28	2,154	2.5
Subtotal	39	2,473	2.2	32	2,508	2.4
Baa						
Single name credit default swaps (3)	3	216	1.5	3	482	1.5
Credit default swaps referencing indices	203	8,539	5.0	40	8,056	5.0
Subtotal	206	8,755	4.9	43	8,538	4.8
Ba						
Single name credit default swaps (3)	—	9	5.0	—	15	2.0
Credit default swaps referencing indices	—	—	—	—	—	—
Subtotal	—	9	5.0	—	15	2.0
B						
Single name credit default swaps (3)	—	10	0.5	—	—	—
Credit default swaps referencing indices	26	273	5.0	7	330	5.0
Subtotal	26	283	4.8	7	330	5.0
Total	$ 271	$ 11,520	4.3	$ 82	$ 11,391	4.3

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(1) The rating agency designations are based on availability and the midpoint of the applicable ratings among Moody's Investors Service ("Moody's"), S&P and Fitch Ratings. If no rating is available from a rating agency, then an internally developed rating is used.

(2) The weighted average years to maturity of the credit default swaps is calculated based on weighted average gross notional amounts.

(3) Single name credit default swaps may be referenced to the credit of corporations, foreign governments, or municipals.

Credit Risk on Freestanding Derivatives

The Company may be exposed to credit-related losses in the event of nonperformance by its counterparties to derivatives. Generally, the current credit exposure of the Company's derivatives is limited to the net positive estimated fair value of derivatives at the reporting date after taking into consideration the existence of master netting or similar agreements and any collateral received pursuant to such agreements.

The Company manages its credit risk related to derivatives by entering into transactions with creditworthy counterparties and establishing and monitoring exposure limits. The Company's OTC-bilateral derivative transactions are governed by ISDA Master Agreements which provide for legally enforceable set-off and close-out netting of exposures to specific counterparties in the event of early termination of a transaction, which includes, but is not limited to, events of default and bankruptcy. In the event of an early termination, the Company is permitted to set off receivables from the counterparty against payables to the same counterparty arising out of all included transactions. All of the Company's ISDA Master Agreements also include Credit Support Annex provisions which require both the pledging and accepting of collateral in connection with its OTC-bilateral derivatives.

9. Derivatives (continued)

The Company's OTC-cleared derivatives are effected through central clearing counterparties and its exchange-traded derivatives are effected through regulated exchanges. Such positions are marked to market and margined on a daily basis (both initial margin and variation margin), and the Company has minimal exposure to credit-related losses in the event of nonperformance by counterparties to such derivatives.

See Note 10 for a description of the impact of credit risk on the valuation of derivatives.

The estimated fair values of the Company's net derivative assets and net derivative liabilities after the application of master netting agreements and collateral were as follows at:

	December 31,			
	2019		2018	
Derivatives Subject to a Master Netting Arrangement or a Similar Arrangement	Assets	Liabilities	Assets	Liabilities
	(In millions)			
Gross estimated fair value of derivatives:				
OTC-bilateral (1)	$ 9,574	$ 3,624	$ 8,805	$ 3,758
OTC-cleared (1)	606	81	245	33
Exchange-traded	15	11	18	80
Total gross estimated fair value of derivatives presented on the consolidated balance sheets (1)	10,195	3,716	9,068	3,871
Gross amounts not offset on the consolidated balance sheets:				
Gross estimated fair value of derivatives: (2)				
OTC-bilateral	(2,664)	(2,664)	(2,570)	(2,570)
OTC-cleared	(38)	(38)	(25)	(25)
Exchange-traded	(2)	(2)	(1)	(1)
Cash collateral: (3), (4)				
OTC-bilateral	(5,317)	—	(4,709)	—
OTC-cleared	(560)	(4)	(145)	—
Exchange-traded	—	(5)	—	(57)
Securities collateral: (5)				
OTC-bilateral	(1,521)	(935)	(1,266)	(1,134)
OTC-cleared	—	(39)	—	(8)
Exchange-traded	—	(4)	—	(7)
Net amount after application of master netting agreements and collateral	$ 93	$ 25	$ 352	$ 69

(1) At December 31, 2019 and 2018, derivative assets included income or (expense) accruals reported in accrued investment income or in other liabilities of $111 million and $99 million, respectively, and derivative liabilities included (income) or expense accruals reported in accrued investment income or in other liabilities of ($21) million and ($59) million, respectively.

(2) Estimated fair value of derivatives is limited to the amount that is subject to set-off and includes income or expense accruals.

(3) Cash collateral received by the Company for OTC-bilateral and OTC-cleared derivatives is included in cash and cash equivalents, short-term investments or in fixed maturity securities AFS, and the obligation to return it is included in payables for collateral under securities loaned and other transactions on the balance sheet.

9. Derivatives (continued)

(4) The receivable for the return of cash collateral provided by the Company is inclusive of initial margin on exchange-traded and OTC-cleared derivatives and is included in premiums, reinsurance and other receivables on the balance sheet. The amount of cash collateral offset in the table above is limited to the net estimated fair value of derivatives after application of netting agreements. At December 31, 2019 and 2018, the Company received excess cash collateral of $389 million and $135 million, respectively, and provided excess cash collateral of $266 million and $226 million, respectively, which is not included in the table above due to the foregoing limitation.

(5) Securities collateral received by the Company is held in separate custodial accounts and is not recorded on the balance sheet. Subject to certain constraints, the Company is permitted by contract to sell or re-pledge this collateral, but at December 31, 2019, none of the collateral had been sold or re-pledged. Securities collateral pledged by the Company is reported in fixed maturity securities AFS on the balance sheet. Subject to certain constraints, the counterparties are permitted by contract to sell or re-pledge this collateral. The amount of securities collateral offset in the table above is limited to the net estimated fair value of derivatives after application of netting agreements and cash collateral. At December 31, 2019 and 2018, the Company received excess securities collateral with an estimated fair value of $156 million and $70 million, respectively, for its OTC-bilateral derivatives, which are not included in the table above due to the foregoing limitation. At December 31, 2019 and 2018, the Company provided excess securities collateral with an estimated fair value of $189 million and $212 million, respectively, for its OTC-bilateral derivatives, $1.0 billion and $601 million, respectively, for its OTC-cleared derivatives, and $143 million and $90 million, respectively, for its exchange-traded derivatives, which are not included in the table above due to the foregoing limitation.

The Company's collateral arrangements for its OTC-bilateral derivatives generally require the counterparty in a net liability position, after considering the effect of netting agreements, to pledge collateral when the collateral amount owed by that counterparty reaches a minimum transfer amount. All of the Company's netting agreements for derivatives contain provisions that require both the Company and the counterparty to maintain a specific investment grade credit rating from each of Moody's and S&P. If a party's credit or financial strength rating, as applicable, were to fall below that specific investment grade credit rating, that party would be in violation of these provisions, and the other party to the derivatives could terminate the transactions and demand immediate settlement and payment based on such party's reasonable valuation of the derivatives. A small number of these arrangements also include credit-contingent provisions that include a threshold above which collateral must be posted. Such agreements provide for a reduction of these thresholds (on a sliding scale that converges toward zero) in the event of downgrades in the credit ratings of MetLife, Inc. and/or the counterparty. At December 31, 2019, the amount of collateral not provided by the Company due to the existence of these thresholds was $15 million.

The following table presents the estimated fair value of the Company's OTC-bilateral derivatives that were in a net liability position after considering the effect of netting agreements, together with the estimated fair value and balance sheet location of the collateral pledged.

	December 31,					
	2019			2018		
	Derivatives Subject to Credit-Contingent Provisions	Derivatives Not Subject to Credit-Contingent Provisions	Total	Derivatives Subject to Credit-Contingent Provisions	Derivatives Not Subject to Credit-Contingent Provisions	Total
	(In millions)					
Estimated Fair Value of Derivatives in a Net Liability Position (1)	$ 874	$ 85	$ 959	$ 1,148	$ 40	$ 1,188
Estimated Fair Value of Collateral Provided:						
Fixed maturity securities AFS	$ 983	$ 80	$ 1,063	$ 1,218	$ 9	$ 1,227
Cash	$ —	$ —	$ —	$ 6	$ —	$ 6

(1) After taking into consideration the existence of netting agreements.

9. Derivatives (continued)

Embedded Derivatives

The Company issues certain products or purchases certain investments that contain embedded derivatives that are required to be separated from their host contracts and accounted for as freestanding derivatives.

The following table presents the estimated fair value and balance sheet location of the Company's embedded derivatives that have been separated from their host contracts at:

	Balance Sheet Location	December 31, 2019	December 31, 2018
		(In millions)	
Embedded derivatives within asset host contracts:			
Ceded guaranteed minimum benefits	Premiums, reinsurance and other receivables	$ 60	$ 71
Embedded derivatives within liability host contracts:			
Direct guaranteed minimum benefits	Policyholder account balances	$ 312	$ 298
Assumed guaranteed minimum benefits	Policyholder account balances	312	495
Funds withheld on ceded reinsurance	Other liabilities	36	(41)
Fixed annuities with equity indexed returns	Policyholder account balances	130	58
Other guarantees	Policyholder account balances	12	—
Embedded derivatives within liability host contracts		$ 802	$ 810

10. Fair Value

When developing estimated fair values, the Company considers three broad valuation approaches: (i) the market approach, (ii) the income approach, and (iii) the cost approach. The Company determines the most appropriate valuation approach to use, given what is being measured and the availability of sufficient inputs, giving priority to observable inputs. The Company categorizes its assets and liabilities measured at estimated fair value into a three-level hierarchy, based on the significant input with the lowest level in its valuation. The input levels are as follows:

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities. The Company defines active markets based on average trading volume for equity securities. The size of the bid/ask spread is used as an indicator of market activity for fixed maturity securities AFS.

Level 2 Quoted prices in markets that are not active or inputs that are observable either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities other than quoted prices in Level 1, quoted prices in markets that are not active, or other significant inputs that are observable or can be derived principally from or corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and are significant to the determination of estimated fair value of the assets or liabilities. Unobservable inputs reflect the reporting entity's own assumptions about the assumptions that market participants would use in pricing the asset or liability.

Financial markets are susceptible to severe events evidenced by rapid depreciation in asset values accompanied by a reduction in asset liquidity. The Company's ability to sell securities, as well as the price ultimately realized for these securities, depends upon the demand and liquidity in the market and increases the use of judgment in determining the estimated fair value of certain securities.

Considerable judgment is often required in interpreting market data to develop estimates of fair value, and the use of different assumptions or valuation methodologies may have a material effect on the estimated fair value amounts.

10. Fair Value (continued)

Recurring Fair Value Measurements

The assets and liabilities measured at estimated fair value on a recurring basis and their corresponding placement in the fair value hierarchy, including those items for which the Company has elected the FVO, are presented below at:

	December 31, 2019			
	Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total Estimated Fair Value
	(In millions)			
Assets				
Fixed maturity securities AFS:				
U.S. corporate	$ —	$ 81,501	$ 6,252	$ 87,753
Foreign government	—	67,112	117	67,229
Foreign corporate	—	56,188	7,977	64,165
U.S. government and agency	21,058	21,026	—	42,084
RMBS	3	25,682	2,862	28,547
ABS	—	13,326	1,216	14,542
Municipals	—	13,046	7	13,053
CMBS	—	10,067	380	10,447
Total fixed maturity securities AFS	21,061	287,948	18,811	327,820
Equity securities	794	118	430	1,342
Unit-linked and FVO Securities (1)	10,598	1,879	625	13,102
Short-term investments (2)	2,042	1,108	32	3,182
Residential mortgage loans — FVO	—	—	188	188
Other investments	74	160	455	689
Derivative assets: (3)				
Interest rate	2	6,616	89	6,707
Foreign currency exchange rate	7	2,336	35	2,378
Credit	—	244	32	276
Equity market	6	686	31	723
Total derivative assets	15	9,882	187	10,084
Embedded derivatives within asset host contracts (4)	—	—	60	60
Separate account assets (5)	86,790	100,668	987	188,445
Total assets (6)	$ 121,374	$ 401,763	$ 21,775	$ 544,912
Liabilities				
Derivative liabilities: (3)				
Interest rate	$ 3	$ 220	$ 195	$ 418
Foreign currency exchange rate	—	2,324	118	2,442
Credit	—	102	1	103
Equity market	8	747	19	774
Total derivative liabilities	11	3,393	333	3,737
Embedded derivatives within liability host contracts (4)	—	—	802	802
Separate account liabilities (5)	1	14	7	22
Total liabilities	$ 12	$ 3,407	$ 1,142	$ 4,561

10. Fair Value (continued)

	December 31, 2018			
	Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total Estimated Fair Value
	(In millions)			
Assets				
Fixed maturity securities AFS:				
U.S. corporate	$ —	$ 74,874	$ 4,074	$ 78,948
Foreign government	—	62,150	138	62,288
Foreign corporate	—	50,310	6,393	56,703
U.S. government and agency	19,656	19,666	—	39,322
RMBS	—	24,734	3,227	27,961
ABS	—	11,775	697	12,472
Municipals	—	11,533	—	11,533
CMBS	—	8,696	342	9,038
Total fixed maturity securities AFS	19,656	263,738	14,871	298,265
Equity securities	916	105	419	1,440
Unit-linked and FVO Securities (1)	10,216	1,995	405	12,616
Short-term investments (2)	1,470	1,746	33	3,249
Residential mortgage loans — FVO	—	—	299	299
Other investments	80	118	39	237
Derivative assets: (3)				
Interest rate	1	4,809	33	4,843
Foreign currency exchange rate	4	2,922	52	2,978
Credit	—	91	29	120
Equity market	13	956	59	1,028
Total derivative assets	18	8,778	173	8,969
Embedded derivatives within asset host contracts (4)	—	—	71	71
Separate account assets (5)	79,726	94,886	944	175,556
Total assets (6)	$ 112,082	$ 371,366	$ 17,254	$ 500,702
Liabilities				
Derivative liabilities: (3)				
Interest rate	$ 3	$ 194	$ 218	$ 415
Foreign currency exchange rate	—	2,660	89	2,749
Credit	—	48	4	52
Equity market	77	550	87	714
Total derivative liabilities	80	3,452	398	3,930
Embedded derivatives within liability host contracts (4)	—	—	810	810
Separate account liabilities (5)	1	20	7	28
Total liabilities	$ 81	$ 3,472	$ 1,215	$ 4,768

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(1) Unit-linked and FVO Securities were primarily comprised of Unit-linked investments at both December 31, 2019 and 2018.

(2) Short-term investments as presented in the tables above differ from the amounts presented on the consolidated balance sheets because certain short-term investments are not measured at estimated fair value on a recurring basis.

(3) Derivative assets are presented within other invested assets on the consolidated balance sheets and derivative liabilities are presented within other liabilities on the consolidated balance sheets. The amounts are presented gross in the tables above to reflect the presentation on the consolidated balance sheets, but are presented net for purposes of the rollforward in the Fair Value Measurements Using Significant Unobservable Inputs (Level 3) tables.

10. Fair Value (continued)

(4) Embedded derivatives within asset host contracts are presented within premiums, reinsurance and other receivables and other invested assets on the consolidated balance sheets. Embedded derivatives within liability host contracts are presented within policyholder account balances and other liabilities on the consolidated balance sheets.

(5) Investment performance related to separate account assets is fully offset by corresponding amounts credited to contractholders whose liability is reflected within separate account liabilities. Separate account liabilities are set equal to the estimated fair value of separate account assets. Separate account liabilities presented in the tables above represent derivative liabilities.

(6) Total assets included in the fair value hierarchy exclude other limited partnership interests that are measured at estimated fair value using the net asset value ("NAV") per share (or its equivalent) practical expedient. At December 31, 2019 and 2018, the estimated fair value of such investments was $95 million and $145 million, respectively.

The following describes the valuation methodologies used to measure assets and liabilities at fair value.

Investments

Securities, Short-term Investments and Other Investments

When available, the estimated fair value of these financial instruments is based on quoted prices in active markets that are readily and regularly obtainable. Generally, these are the most liquid of the Company's securities holdings and valuation of these securities does not involve management's judgment.

When quoted prices in active markets are not available, the determination of estimated fair value is based on market standard valuation methodologies, giving priority to observable inputs. The significant inputs to the market standard valuation methodologies for certain types of securities with reasonable levels of price transparency are inputs that are observable in the market or can be derived principally from, or corroborated by, observable market data. When observable inputs are not available, the market standard valuation methodologies rely on inputs that are significant to the estimated fair value that are not observable in the market or cannot be derived principally from, or corroborated by, observable market data. These unobservable inputs can be based in large part on management's judgment or estimation and cannot be supported by reference to market activity. Even though these inputs are unobservable, management believes they are consistent with what other market participants would use when pricing such securities and are considered appropriate given the circumstances.

The estimated fair value of other investments is determined on a basis consistent with the methodologies described herein for securities.

The valuation approaches and key inputs for each category of assets or liabilities that are classified within Level 2 and Level 3 of the fair value hierarchy are presented below. The primary valuation approaches are the market approach, which considers recent prices from market transactions involving identical or similar assets or liabilities, and the income approach, which converts expected future amounts (e.g. cash flows) to a single current, discounted amount. The valuation of most instruments listed below is determined using independent pricing sources, matrix pricing, discounted cash flow methodologies or other similar techniques that use either observable market inputs or unobservable inputs.

10. Fair Value (continued)

<table>
<tr><th>Instrument</th><th>Level 2
Observable Inputs</th><th>Level 3
Unobservable Inputs</th></tr>
<tr><td colspan="3">Fixed maturity securities AFS</td></tr>
<tr><td colspan="3">U.S. corporate and Foreign corporate securities</td></tr>
<tr><td></td><td>Valuation Approaches: Principally the market and income approaches.
Key Inputs:
• quoted prices in markets that are not active
• benchmark yields; spreads off benchmark yields; new issuances; issuer ratings
• trades of identical or comparable securities; duration
• privately-placed securities are valued using the additional key inputs:
  • market yield curve; call provisions
  • observable prices and spreads for similar public or private securities that incorporate the credit quality and industry sector of the issuer
  • delta spread adjustments to reflect specific credit-related issues</td><td>Valuation Approaches: Principally the market approach.
Key Inputs:
• illiquidity premium
• delta spread adjustments to reflect specific credit-related issues
• credit spreads
• quoted prices in markets that are not active for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2
• independent non-binding broker quotations</td></tr>
<tr><td colspan="3">Foreign government securities, U.S. government and agency securities and Municipals</td></tr>
<tr><td></td><td>Valuation Approaches: Principally the market approach.
Key Inputs:
• quoted prices in markets that are not active
• benchmark U.S. Treasury yield or other yields
• the spread off the U.S. Treasury yield curve for the identical security
• issuer ratings and issuer spreads; broker-dealer quotes
• comparable securities that are actively traded</td><td>Valuation Approaches: Principally the market approach.
Key Inputs:
• independent non-binding broker quotations
• quoted prices in markets that are not active for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2
• credit spreads</td></tr>
<tr><td colspan="3">Structured Products</td></tr>
<tr><td></td><td>Valuation Approaches: Principally the market and income approaches.
Key Inputs:
• quoted prices in markets that are not active
• spreads for actively traded securities; spreads off benchmark yields
• expected prepayment speeds and volumes
• current and forecasted loss severity; ratings; geographic region
• weighted average coupon and weighted average maturity
• average delinquency rates; debt-service coverage ratios
• credit ratings
• issuance-specific information, including, but not limited to:
  • collateral type; structure of the security; vintage of the loans
  • payment terms of the underlying assets
  • payment priority within the tranche; deal performance</td><td>Valuation Approaches: Principally the market and income approaches.
Key Inputs:
• credit spreads
• quoted prices in markets that are not active for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2
• independent non-binding broker quotations
• credit ratings</td></tr>
</table>

10. Fair Value (continued)

Instrument	Level 2 Observable Inputs	Level 3 Unobservable Inputs
Equity securities		
	Valuation Approaches: Principally the market approach. Key Input: • quoted prices in markets that are not considered active	Valuation Approaches: Principally the market and income approaches. Key Inputs: • credit ratings; issuance structures • quoted prices in markets that are not active for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2 • independent non-binding broker quotations
Unit-linked and FVO Securities, Short-term investments and Other investments		
	• Unit-linked and FVO Securities include mutual fund interests without readily determinable fair values given prices are not published publicly. Valuation of these mutual funds is based upon quoted prices or reported NAV provided by the fund managers, which were based on observable inputs. • Short-term investments and other investments are of a similar nature and class to the fixed maturity securities AFS and equity securities described above; accordingly, the valuation approaches and observable inputs used in their valuation are also similar to those described above.	• Unit-linked and FVO Securities, short-term investments and other investments are of a similar nature and class to the fixed maturity securities AFS and equity securities described above; accordingly, the valuation approaches and unobservable inputs used in their valuation are also similar to those described above.
Residential mortgage loans — FVO		
	• N/A	Valuation Approaches: Principally the market approach. Valuation Techniques and Key Inputs: These investments are based primarily on matrix pricing or other similar techniques that utilize inputs from mortgage servicers that are unobservable or cannot be derived principally from, or corroborated by, observable market data.
Separate account assets and Separate account liabilities (1)		
Mutual funds and hedge funds without readily determinable fair values as prices are not published publicly		
	Key Input: • quoted prices or reported NAV provided by the fund managers	• N/A
Other limited partnership interests		
	• N/A	Valued giving consideration to the underlying holdings of the partnerships and adjusting, if appropriate. Key Inputs: • liquidity; bid/ask spreads; performance record of the fund manager • other relevant variables that may impact the exit value of the particular partnership interest

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(1) Estimated fair value equals carrying value, based on the value of the underlying assets, including: mutual fund interests, fixed maturity securities, equity securities, derivatives, hedge funds, other limited partnership interests, short-term investments and cash and cash equivalents. Fixed maturity securities, equity securities, derivatives, short-term investments and cash and cash equivalents are similar in nature to the instruments described under "— Securities, Short-term Investments and Other Investments" and "— Derivatives — Freestanding Derivatives."

10. Fair Value (continued)

Derivatives

The estimated fair value of derivatives is determined through the use of quoted market prices for exchange-traded derivatives, or through the use of pricing models for OTC-bilateral and OTC-cleared derivatives. The determination of estimated fair value, when quoted market values are not available, is based on market standard valuation methodologies and inputs that management believes are consistent with what other market participants would use when pricing such instruments. Derivative valuations can be affected by changes in interest rates, foreign currency exchange rates, financial indices, credit spreads, default risk, nonperformance risk, volatility, liquidity and changes in estimates and assumptions used in the pricing models.

The significant inputs to the pricing models for most OTC-bilateral and OTC-cleared derivatives are inputs that are observable in the market or can be derived principally from, or corroborated by, observable market data. Certain OTC-bilateral and OTC-cleared derivatives may rely on inputs that are significant to the estimated fair value that are not observable in the market or cannot be derived principally from, or corroborated by, observable market data. These unobservable inputs may involve significant management judgment or estimation. Even though unobservable, these inputs are based on assumptions deemed appropriate given the circumstances and management believes they are consistent with what other market participants would use when pricing such instruments.

Most inputs for OTC-bilateral and OTC-cleared derivatives are mid-market inputs but, in certain cases, liquidity adjustments are made when they are deemed more representative of exit value. Market liquidity, as well as the use of different methodologies, assumptions and inputs, may have a material effect on the estimated fair values of the Company's derivatives and could materially affect net income.

The credit risk of both the counterparty and the Company are considered in determining the estimated fair value for all OTC-bilateral and OTC-cleared derivatives, and any potential credit adjustment is based on the net exposure by counterparty after taking into account the effects of netting agreements and collateral arrangements. The Company values its OTC-bilateral and OTC-cleared derivatives using standard swap curves which may include a spread to the risk-free rate, depending upon specific collateral arrangements. This credit spread is appropriate for those parties that execute trades at pricing levels consistent with similar collateral arrangements. As the Company and its significant derivative counterparties generally execute trades at such pricing levels and hold sufficient collateral, additional credit risk adjustments are not currently required in the valuation process. The Company's ability to consistently execute at such pricing levels is in part due to the netting agreements and collateral arrangements that are in place with all of its significant derivative counterparties. An evaluation of the requirement to make additional credit risk adjustments is performed by the Company each reporting period.

Freestanding Derivatives

Level 2 Valuation Approaches and Key Inputs:

This level includes all types of derivatives utilized by the Company with the exception of exchange-traded derivatives included within Level 1 and those derivatives with unobservable inputs as described in Level 3.

Level 3 Valuation Approaches and Key Inputs:

These valuation methodologies generally use the same inputs as described in the corresponding sections for Level 2 measurements of derivatives. However, these derivatives result in Level 3 classification because one or more of the significant inputs are not observable in the market or cannot be derived principally from, or corroborated by, observable market data.

10. Fair Value (continued)

Freestanding derivatives are principally valued using the income approach. Valuations of non-option-based derivatives utilize present value techniques, whereas valuations of option-based derivatives utilize option pricing models. Key inputs are as follows:

Instrument	Interest Rate	Foreign Currency Exchange Rate	Credit	Equity Market
Inputs common to Level 2 and Level 3 by instrument type	• swap yield curves • basis curves • interest rate volatility (1)	• swap yield curves • basis curves • currency spot rates • cross currency basis curves • currency volatility (1)	• swap yield curves • credit curves • recovery rates	• swap yield curves • spot equity index levels • dividend yield curves • equity volatility (1)
Level 3	• swap yield curves (2) • basis curves (2) • repurchase rates	• swap yield curves (2) • basis curves (2) • cross currency basis curves (2) • currency correlation • currency volatility (1)	• swap yield curves (2) • credit curves (2) • credit spreads • repurchase rates • independent non-binding broker quotations	• dividend yield curves (2) • equity volatility (1), (2) • correlation between model inputs (1)

(1) Option-based only.

(2) Extrapolation beyond the observable limits of the curve(s).

Embedded Derivatives

Embedded derivatives principally include certain direct, assumed and ceded variable annuity guarantees, annuity contracts, and investment risk within funds withheld related to certain reinsurance agreements. Embedded derivatives are recorded at estimated fair value with changes in estimated fair value reported in net income.

The Company issues certain variable annuity products with guaranteed minimum benefits. GMWBs, GMABs and certain GMIBs contain embedded derivatives, which are measured at estimated fair value separately from the host variable annuity contract, with changes in estimated fair value reported in net derivative gains (losses). These embedded derivatives are classified within policyholder account balances on the consolidated balance sheets.

The Company calculates the fair value of these embedded derivatives, which are estimated as the present value of projected future benefits minus the present value of projected future fees using actuarial and capital market assumptions including expectations concerning policyholder behavior. The calculation is based on in-force business, projecting future cash flows from the embedded derivative over multiple risk neutral stochastic scenarios using observable risk-free rates.

Capital market assumptions, such as risk-free rates and implied volatilities, are based on market prices for publicly traded instruments to the extent that prices for such instruments are observable. Implied volatilities beyond the observable period are extrapolated based on observable implied volatilities and historical volatilities. Actuarial assumptions, including mortality, lapse, withdrawal and utilization, are unobservable and are reviewed at least annually based on actuarial studies of historical experience.

The valuation of these guarantee liabilities includes nonperformance risk adjustments and adjustments for a risk margin related to non-capital market inputs. The nonperformance adjustment is determined by taking into consideration publicly available information relating to spreads in the secondary market for MetLife, Inc.'s debt, including related credit default swaps. These observable spreads are then adjusted, as necessary, to reflect the priority of these liabilities and the claims paying ability of the issuing insurance subsidiaries as compared to MetLife, Inc.

10. Fair Value (continued)

Risk margins are established to capture the non-capital market risks of the instrument which represent the additional compensation a market participant would require to assume the risks related to the uncertainties of such actuarial assumptions as annuitization, premium persistency, partial withdrawal and surrenders. The establishment of risk margins requires the use of significant management judgment, including assumptions of the amount and cost of capital needed to cover the guarantees. These guarantees may be more costly than expected in volatile or declining equity markets. Market conditions including, but not limited to, changes in interest rates, equity indices, market volatility and foreign currency exchange rates; changes in nonperformance risk; and variations in actuarial assumptions regarding policyholder behavior, mortality and risk margins related to non-capital market inputs, may result in significant fluctuations in the estimated fair value of the guarantees that could materially affect net income.

The Company ceded the risk associated with certain of the GMIBs previously described. These reinsurance agreements contain embedded derivatives which are included within premiums, reinsurance and other receivables on the consolidated balance sheets with changes in estimated fair value reported in net derivative gains (losses) or policyholder benefits and claims depending on the statement of operations classification of the direct risk. The value of the embedded derivatives on the ceded risk is determined using a methodology consistent with that described previously for the guarantees directly written by the Company with the exception of the input for nonperformance risk that reflects the credit of the reinsurer.

The estimated fair value of the embedded derivatives within funds withheld related to certain ceded reinsurance is determined based on the change in estimated fair value of the underlying assets held by the Company in a reference portfolio backing the funds withheld liability. The estimated fair value of the underlying assets is determined as described in "— Investments — Securities, Short-term Investments and Other Investments." The estimated fair value of these embedded derivatives is included, along with their funds withheld hosts, in other liabilities on the consolidated balance sheets with changes in estimated fair value recorded in net derivative gains (losses). Changes in the credit spreads on the underlying assets, interest rates and market volatility may result in significant fluctuations in the estimated fair value of these embedded derivatives that could materially affect net income.

The Company issues certain annuity contracts which allow the policyholder to participate in returns from equity indices. These equity indexed features are embedded derivatives which are measured at estimated fair value separately from the host fixed annuity contract, with changes in estimated fair value reported in net derivative gains (losses). These embedded derivatives are classified within policyholder account balances on the consolidated balance sheets.

The estimated fair value of the embedded equity indexed derivatives, based on the present value of future equity returns to the policyholder using actuarial and present value assumptions including expectations concerning policyholder behavior, is calculated by the Company's actuarial department. The calculation is based on in-force business and uses standard capital market techniques, such as Black-Scholes, to calculate the value of the portion of the embedded derivative for which the terms are set. The portion of the embedded derivative covering the period beyond where terms are set is calculated as the present value of amounts expected to be spent to provide equity indexed returns in those periods. The valuation of these embedded derivatives also includes the establishment of a risk margin, as well as changes in nonperformance risk.

Embedded Derivatives Within Asset and Liability Host Contracts

Level 3 Valuation Approaches and Key Inputs:

Direct and assumed guaranteed minimum benefits

These embedded derivatives are principally valued using the income approach. Valuations are based on option pricing techniques, which utilize significant inputs that may include swap yield curves, currency exchange rates and implied volatilities. These embedded derivatives result in Level 3 classification because one or more of the significant inputs are not observable in the market or cannot be derived principally from, or corroborated by, observable market data. Significant unobservable inputs generally include: the extrapolation beyond observable limits of the swap yield curves and implied volatilities, actuarial assumptions for policyholder behavior and mortality and the potential variability in policyholder behavior and mortality, nonperformance risk and cost of capital for purposes of calculating the risk margin.

Reinsurance ceded on certain guaranteed minimum benefits

These embedded derivatives are principally valued using the income approach. The valuation techniques and significant market standard unobservable inputs used in their valuation are similar to those described above in "— Direct and assumed guaranteed minimum benefits" and also include counterparty credit spreads.

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10. Fair Value (continued)

Transfers between Levels

Overall, transfers between levels occur when there are changes in the observability of inputs and market activity.

Transfers into or out of Level 3:

Assets and liabilities are transferred into Level 3 when a significant input cannot be corroborated with market observable data. This occurs when market activity decreases significantly and underlying inputs cannot be observed, current prices are not available, and/or when there are significant variances in quoted prices, thereby affecting transparency. Assets and liabilities are transferred out of Level 3 when circumstances change such that a significant input can be corroborated with market observable data. This may be due to a significant increase in market activity, a specific event, or one or more significant input(s) becoming observable.

Assets and Liabilities Measured at Fair Value Using Significant Unobservable Inputs (Level 3)

The following table presents certain quantitative information about the significant unobservable inputs used in the fair value measurement, and the sensitivity of the estimated fair value to changes in those inputs, for the more significant asset and liability classes measured at fair value on a recurring basis using significant unobservable inputs (Level 3) at:

			December 31, 2019		December 31, 2018		
	Valuation Techniques	Significant Unobservable Inputs	Range	Weighted Average (1)	Range	Weighted Average (1)	Impact of Increase in Input on Estimated Fair Value (2)
Fixed maturity securities AFS (3)							
U.S. corporate and foreign corporate	• Matrix pricing	• Offered quotes (4)	5 - 145	110	85 - 134	104	Increase
	• Market pricing	• Quoted prices (4)	25 - 131	100	25 - 638	110	Increase
	• Consensus pricing	• Offered quotes (4)	81 - 109	102	100 - 110	102	Increase
RMBS	• Market pricing	• Quoted prices (4)	— - 119	95	— - 106	94	Increase (5)
ABS	• Market pricing	• Quoted prices (4)	3 - 119	98	3 - 116	97	Increase (5)
	• Consensus pricing	• Offered quotes (4)	99 - 104	100	100 - 103	101	Increase (5)
Derivatives							
Interest rate	• Present value techniques	• Swap yield (6)	190 - 251		268 - 317		Increase (7)
		• Repurchase rates (8)	(6) - 6		(5) - 6		Decrease (7)
Foreign currency exchange rate	• Present value techniques	• Swap yield (6)	(125) - 328		(20) - 328		Increase (7)
Credit	• Present value techniques	• Credit spreads (9)	96 - 100		97 - 103		Decrease (7)
	• Consensus pricing	• Offered quotes (10)					
Equity market	• Present value techniques or option pricing models	• Volatility (11)	14% - 23%		21% - 26%		Increase (7)
		• Correlation (12)	10% - 30%		10% - 30%		
Embedded derivatives							
Direct, assumed and ceded guaranteed minimum benefits	• Option pricing techniques	• Mortality rates:					
		Ages 0 - 40	0% - 0.18%		0% - 0.18%		Decrease (13)
		Ages 41 - 60	0.03% - 0.80%		0.03% - 0.80%		Decrease (13)
		Ages 61 - 115	0.13% - 100%		0.12% - 100%		Decrease (13)
		• Lapse rates:					
		Durations 1 - 10	0.25% - 100%		0.25% - 100%		Decrease (14)
		Durations 11 - 20	0.50% - 100%		2% - 100%		Decrease (14)
		Durations 21 - 116	0.50% - 100%		1.25% - 100%		Decrease (14)
		• Utilization rates	0% - 22%		0% - 25%		Increase (15)
		• Withdrawal rates	0% - 20%		0% - 20%		(16)
		• Long-term equity volatilities	6.01% - 30%		7.16% - 30%		Increase (17)
		• Nonperformance risk spread	0.03% - 1.30%		0.04% - 1.77%		Decrease (18)

(1) The weighted average for fixed maturity securities AFS is determined based on the estimated fair value of the securities.

10. Fair Value (continued)

(2) The impact of a decrease in input would have resulted in the opposite impact on estimated fair value. For embedded derivatives, changes to direct and assumed guaranteed minimum benefits are based on liability positions; changes to ceded guaranteed minimum benefits are based on asset positions.

(3) Significant increases (decreases) in expected default rates in isolation would have resulted in substantially lower (higher) valuations.

(4) Range and weighted average are presented in accordance with the market convention for fixed maturity securities AFS of dollars per hundred dollars of par.

(5) Changes in the assumptions used for the probability of default would have been accompanied by a directionally similar change in the assumption used for the loss severity and a directionally opposite change in the assumptions used for prepayment rates.

(6) Ranges represent the rates across different yield curves and are presented in basis points. The swap yield curves are utilized among different types of derivatives to project cash flows, as well as to discount future cash flows to present value. Since this valuation methodology uses a range of inputs across a yield curve to value the derivative, presenting a range is more representative of the unobservable input used in the valuation.

(7) Changes in estimated fair value are based on long U.S. dollar net asset positions and will be inversely impacted for short U.S. dollar net asset positions.

(8) Ranges represent different repurchase rates utilized as components within the valuation methodology and are presented in basis points.

(9) Represents the risk quoted in basis points of a credit default event on the underlying instrument. Credit derivatives with significant unobservable inputs are primarily comprised of written credit default swaps.

(10) At both December 31, 2019 and 2018, independent non-binding broker quotations were used in the determination of less than 1% of the total net derivative estimated fair value.

(11) Ranges represent the underlying equity volatility quoted in percentage points. Since this valuation methodology uses a range of inputs across multiple volatility surfaces to value the derivative, presenting a range is more representative of the unobservable input used in the valuation.

(12) Ranges represent the different correlation factors utilized as components within the valuation methodology. Presenting a range of correlation factors is more representative of the unobservable input used in the valuation. Increases (decreases) in correlation in isolation will increase (decrease) the significance of the change in valuations.

(13) Mortality rates vary by age and by demographic characteristics such as gender. Mortality rate assumptions are based on company experience. A mortality improvement assumption is also applied. For any given contract, mortality rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative.

(14) Base lapse rates are adjusted at the contract level based on a comparison of the actuarially calculated guaranteed values and the current policyholder account value, as well as other factors, such as the applicability of any surrender charges. A dynamic lapse function reduces the base lapse rate when the guaranteed amount is greater than the account value as in the money contracts are less likely to lapse. Lapse rates are also generally assumed to be lower in periods when a surrender charge applies. For any given contract, lapse rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative.

(15) The utilization rate assumption estimates the percentage of contractholders with a GMIB or lifetime withdrawal benefit who will elect to utilize the benefit upon becoming eligible. The rates may vary by the type of guarantee, the amount by which the guaranteed amount is greater than the account value, the contract's withdrawal history and by the age of the policyholder. For any given contract, utilization rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative.

10. Fair Value (continued)

(16) The withdrawal rate represents the percentage of account balance that any given policyholder will elect to withdraw from the contract each year. The withdrawal rate assumption varies by age and duration of the contract, and also by other factors such as benefit type. For any given contract, withdrawal rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative. For GMWBs, any increase (decrease) in withdrawal rates results in an increase (decrease) in the estimated fair value of the guarantees. For GMABs and GMIBs, any increase (decrease) in withdrawal rates results in a decrease (increase) in the estimated fair value.

(17) Long-term equity volatilities represent equity volatility beyond the period for which observable equity volatilities are available. For any given contract, long-term equity volatility rates vary throughout the period over which cash flows are projected for purposes of valuing the embedded derivative.

(18) Nonperformance risk spread varies by duration and by currency. For any given contract, multiple nonperformance risk spreads will apply, depending on the duration of the cash flow being discounted for purposes of valuing the embedded derivative.

Generally, all other classes of assets and liabilities classified within Level 3 that are not included in the preceding table use the same valuation techniques and significant unobservable inputs as previously described for Level 3. The sensitivity of the estimated fair value to changes in the significant unobservable inputs for these other assets and liabilities is similar in nature to that described in the preceding table. The valuation techniques and significant unobservable inputs used in the fair value measurement for the more significant assets measured at estimated fair value on a nonrecurring basis and determined using significant unobservable inputs (Level 3) are summarized in "— Nonrecurring Fair Value Measurements."

10. Fair Value (continued)

The following tables summarize the change of all assets (liabilities) measured at estimated fair value on a recurring basis using significant unobservable inputs (Level 3):

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)					
	Fixed Maturity Securities AFS					
	Corporate (1)	Foreign Government	Structured Products	Municipals	Equity Securities	Unit-linked and FVO Securities
	(In millions)					
Balance, January 1, 2018	$ 11,219	$ 209	$ 4,841	$ —	$ 428	$ 362
Total realized/unrealized gains (losses) included in net income (loss) (2), (3)	9	3	82	—	(36)	6
Total realized/unrealized gains (losses) included in AOCI	(745)	(14)	(23)	—	—	—
Purchases (4)	1,903	5	1,142	—	13	263
Sales (4)	(1,464)	(47)	(946)	—	(28)	(176)
Issuances (4)	—	—	—	—	—	—
Settlements (4)	—	—	—	—	—	—
Transfers into Level 3 (5)	152	—	59	—	52	9
Transfers out of Level 3 (5)	(607)	(18)	(889)	—	(10)	(59)
Balance, December 31, 2018	10,467	138	4,266	—	419	405
Total realized/unrealized gains (losses) included in net income (loss) (2), (3)	(49)	—	46	—	47	48
Total realized/unrealized gains (losses) included in AOCI	893	(2)	42	—	—	—
Purchases (4)	3,689	10	1,338	7	65	203
Sales (4)	(870)	(24)	(737)	—	(98)	(39)
Issuances (4)	—	—	—	—	—	—
Settlements (4)	—	—	—	—	—	—
Transfers into Level 3 (5)	606	20	—	—	—	20
Transfers out of Level 3 (5)	(507)	(25)	(497)	—	(3)	(12)
Balance, December 31, 2019	$ 14,229	$ 117	$ 4,458	$ 7	$ 430	$ 625
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2017 (6)	$ 1	$ 4	$ 84	$ —	$ (17)	$ 19
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2018 (6)	$ 1	$ 1	$ 70	$ —	$ (26)	$ 8
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2019 (6)	$ (50)	$ —	$ 44	$ —	$ 39	$ 48
Gains (Losses) Data for the year ended December 31, 2017:						
Total realized/unrealized gains (losses) included in net income (loss) (2), (3)	$ 3	$ 4	$ 94	$ —	$ —	$ 22
Total realized/unrealized gains (losses) included in AOCI	$ 708	$ —	$ 133	$ —	$ 19	$ —

10. Fair Value (continued)

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)					
	Short-term Investments	Residential Mortgage Loans - FVO	Other Investments	Net Derivatives (7)	Net Embedded Derivatives (8)	Separate Accounts (9)
	(In millions)					
Balance, January 1, 2018	$ 33	$ 520	$ —	$ (132)	$ (274)	$ 959
Total realized/unrealized gains (losses) included in net income (loss) (2), (3)	(1)	7	—	(161)	(150)	7
Total realized/unrealized gains (losses) included in AOCI	(1)	—	—	(140)	(15)	—
Purchases (4)	34	—	39	5	—	198
Sales (4)	(12)	(162)	—	—	—	(168)
Issuances (4)	—	—	—	(1)	—	(3)
Settlements (4)	—	(66)	—	204	(300)	(1)
Transfers into Level 3 (5)	—	—	—	—	—	53
Transfers out of Level 3 (5)	(20)	—	—	—	—	(108)
Balance, December 31, 2018	33	299	39	(225)	(739)	937
Total realized/unrealized gains (losses) included in net income (loss) (2), (3)	—	7	—	(108)	274	7
Total realized/unrealized gains (losses) included in AOCI	(1)	—	—	157	(2)	—
Purchases (4)	31	—	416	4	—	191
Sales (4)	(33)	(87)	—	—	—	(151)
Issuances (4)	—	—	—	(2)	—	(3)
Settlements (4)	—	(31)	—	29	(275)	2
Transfers into Level 3 (5)	2	—	—	(1)	—	—
Transfers out of Level 3 (5)	—	—	—	—	—	(3)
Balance, December 31, 2019	$ 32	$ 188	$ 455	$ (146)	$ (742)	$ 980
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2017 (6)	$ —	$ 27	$ —	$ 53	$ 793	$ —
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2018 (6)	$ (1)	$ (15)	$ —	$ (59)	$ (150)	$ —
Changes in unrealized gains (losses) included in net income (loss) for the instruments still held at December 31, 2019 (6)	$ —	$ (14)	$ —	$ (129)	$ 264	$ —
Gains (Losses) Data for the year ended December 31, 2017:						
Total realized/unrealized gains (losses) included in net income (loss) (2), (3)	$ —	$ 40	$ —	$ 87	$ 823	$ (8)
Total realized/unrealized gains (losses) included in AOCI	$ —	$ —	$ —	$ 216	$ (46)	$ —

(1) Comprised of U.S. and foreign corporate securities.

(2) Amortization of premium/accretion of discount is included within net investment income. Impairments charged to net income (loss) on securities are included in net investment gains (losses), while changes in estimated fair value of residential mortgage loans — FVO are included in net investment income. Lapses associated with net embedded derivatives are included in net derivative gains (losses). Substantially all realized/unrealized gains (losses) included in net income (loss) for net derivatives and net embedded derivatives are reported in net derivative gains (losses).

(3) Interest and dividend accruals, as well as cash interest coupons and dividends received, are excluded from the rollforward.

(4) Items purchased/issued and then sold/settled in the same period are excluded from the rollforward. Fees attributed to embedded derivatives are included in settlements.

10. Fair Value (continued)

(5) Items transferred into and then out of Level 3 in the same period are excluded from the rollforward.

(6) Changes in unrealized gains (losses) included in net income (loss) relate to assets and liabilities still held at the end of the respective periods. Substantially all changes in unrealized gains (losses) included in net income (loss) for net derivatives and net embedded derivatives are reported in net derivative gains (losses).

(7) Freestanding derivative assets and liabilities are presented net for purposes of the rollforward.

(8) Embedded derivative assets and liabilities are presented net for purposes of the rollforward.

(9) Investment performance related to separate account assets is fully offset by corresponding amounts credited to contractholders within separate account liabilities. Therefore, such changes in estimated fair value are not recorded in net income (loss). For the purpose of this disclosure, these changes are presented within net investment gains (losses). Separate account assets and liabilities are presented net for the purposes of the rollforward.

Fair Value Option

The Company elects the FVO for certain residential mortgage loans that are managed on a total return basis. The following table presents information for residential mortgage loans, which are accounted for under the FVO and were initially measured at fair value.

	December 31,	
	2019	2018
	(In millions)	
Unpaid principal balance	$ 209	$ 344
Difference between estimated fair value and unpaid principal balance	(21)	(45)
Carrying value at estimated fair value	$ 188	$ 299
Loans in nonaccrual status	$ 47	$ 89
Loans more than 90 days past due	$ 18	$ 41
Loans in nonaccrual status or more than 90 days past due, or both — difference between aggregate estimated fair value and unpaid principal balance	$ (19)	$ (36)

Nonrecurring Fair Value Measurements

The following table presents information for assets measured at estimated fair value on a nonrecurring basis during the periods and still held at the reporting dates (for example, when there is evidence of impairment). The estimated fair values for these assets were determined using significant unobservable inputs (Level 3).

	At December 31,		Years Ended December 31,		
	2019	2018	2019	2018	2017
	Carrying Value After Measurement		Gains (Losses)		
			(In millions)		
Other limited partnership interests (1)	N/A (2)	N/A (2)	N/A (2)	N/A (2)	$ (65)
Other assets	$ —	$ —	$ —	$ —	$ 10

(1) Estimated fair value is determined from information provided on the financial statements of the underlying entities including NAV data. These investments include private equity and debt funds that typically invest primarily in various strategies including leveraged buyout funds; power, energy, timber and infrastructure development funds; venture capital funds; and below investment grade debt and mezzanine debt funds. In the future, distributions will be generated from investment gains, from operating income from the underlying investments of the funds and from liquidation of the underlying assets of the funds, the exact timing of which is uncertain.

(2) In connection with the 2018 adoption of guidance related to the recognition and measurement of financial instruments, other limited partnership interests for which the Company has virtually no influence over the investee's operations are measured at estimated fair value on a recurring basis effective January 1, 2018.

10. Fair Value (continued)

Fair Value of Financial Instruments Carried at Other Than Fair Value

The following tables provide fair value information for financial instruments that are carried on the balance sheet at amounts other than fair value. These tables exclude the following financial instruments: cash and cash equivalents, accrued investment income, payables for collateral under securities loaned and other transactions, short-term debt and those short-term investments that are not securities, such as time deposits, and therefore are not included in the three-level hierarchy table disclosed in the "— Recurring Fair Value Measurements" section. The estimated fair value of the excluded financial instruments, which are primarily classified in Level 2, approximates carrying value as they are short-term in nature such that the Company believes there is minimal risk of material changes in interest rates or credit quality. All remaining balance sheet amounts excluded from the tables below are not considered financial instruments subject to this disclosure.

The carrying values and estimated fair values for such financial instruments, and their corresponding placement in the fair value hierarchy, are summarized as follows at:

	December 31, 2019				
		Fair Value Hierarchy			
	Carrying Value	Level 1	Level 2	Level 3	Total Estimated Fair Value
			(In millions)		
Assets					
Mortgage loans	$ 80,341	$ —	$ —	$ 83,079	$ 83,079
Policy loans	$ 9,680	$ —	$ 326	$ 11,329	$ 11,655
Other invested assets	$ 1,183	$ —	$ 809	$ 374	$ 1,183
Premiums, reinsurance and other receivables	$ 3,678	$ —	$ 1,178	$ 2,706	$ 3,884
Other assets	$ 318	$ —	$ 131	$ 188	$ 319
Liabilities					
Policyholder account balances	$ 119,262	$ —	$ —	$ 122,998	$ 122,998
Long-term debt	$ 13,336	$ —	$ 15,830	$ —	$ 15,830
Collateral financing arrangement	$ 993	$ —	$ —	$ 810	$ 810
Junior subordinated debt securities	$ 3,150	$ —	$ 4,405	$ —	$ 4,405
Other liabilities	$ 2,045	$ —	$ 540	$ 2,279	$ 2,819
Separate account liabilities	$ 110,837	$ —	$ 110,837	$ —	$ 110,837

	December 31, 2018				
		Fair Value Hierarchy			
	Carrying Value	Level 1	Level 2	Level 3	Total Estimated Fair Value
			(In millions)		
Assets					
Mortgage loans	$ 75,453	$ —	$ —	$ 76,379	$ 76,379
Policy loans	$ 9,699	$ —	$ 338	$ 11,028	$ 11,366
Other invested assets	$ 1,177	$ —	$ 793	$ 383	$ 1,176
Premiums, reinsurance and other receivables	$ 3,658	$ —	$ 903	$ 2,894	$ 3,797
Other assets	$ 326	$ —	$ 164	$ 186	$ 350
Liabilities					
Policyholder account balances	$ 114,040	$ —	$ —	$ 114,924	$ 114,924
Long-term debt	$ 12,820	$ —	$ 13,611	$ —	$ 13,611
Collateral financing arrangement	$ 1,060	$ —	$ —	$ 853	$ 853
Junior subordinated debt securities	$ 3,147	$ —	$ 3,738	$ —	$ 3,738
Other liabilities	$ 2,963	$ —	$ 1,324	$ 2,194	$ 3,518
Separate account liabilities	$ 104,010	$ —	$ 104,010	$ —	$ 104,010

11. Leases

The Company, as lessee, has entered into various lease and sublease agreements primarily for office space. The Company has operating leases with remaining lease terms of less than one year to 15 years. The remaining lease terms for the subleases are less than one year to 10 years.

ROU Asset and Lease Liability

ROU assets and lease liabilities for operating leases were:

	December 31, 2019	
	(In millions)	
ROU asset (1)	$	1,488
Lease liability (1)	$	1,654

(1) Assets and liabilities include amounts recognized upon adoption of ASU 2016-02. See Note 1.

Lease Costs

The components of operating lease costs were as follows:

	For the Year Ended December 31	
	2019	
	(In millions)	
Operating lease cost	$	282
Variable lease cost		49
Sublease income		(89)
Net lease cost	$	242

Operating lease expense was $342 million and $374 million for the years ended December 31, 2018 and 2017, respectively. Non-cancelable sublease income was $72 million and $46 million for the years ended December 31, 2018 and 2017, respectively.

Other Information

Supplemental other information related to operating leases was as follows:

	December 31, 2019	
	(Dollars in millions)	
Cash paid for amounts included in the measurement of lease liability - operating cash flows	$	285
ROU assets obtained in exchange for new lease liabilities	$	341
Weighted-average remaining lease term		8 years
Weighted-average discount rate		3.3%

11. Leases (continued)

Maturities of Lease Liabilities

Maturities of operating lease liabilities were as follows:

	December 31, 2019	
	(In millions)	
2020	$	285
2021		266
2022		229
2023		213
2024		193
Thereafter		716
Total undiscounted cash flows		1,902
Less: interest		248
Present value of lease liability	$	1,654

Future minimum gross rental payments relating to lease arrangements in effect as determined prior to the adoption of ASU 2016-02 were as follows:

	December 31, 2018	
	(In millions)	
2019	$	292
2020		282
2021		260
2022		224
2023		209
Thereafter		859
Total	$	2,126

See Notes 8 and 13 for information about the Company's investments in leased real estate, leveraged and direct financing leases, and financing lease obligations.

See Note 17 for information on lease impairment charges.

12. Goodwill

Goodwill is the excess of cost over the estimated fair value of net assets acquired. Goodwill is not amortized but is tested for impairment at least annually or more frequently if events or circumstances, such as adverse changes in the business climate, indicate that there may be justification for conducting an interim test. The goodwill impairment process requires a comparison of the estimated fair value of a reporting unit to its carrying value. The Company tests goodwill for impairment by either performing a qualitative assessment or a quantitative test. The qualitative impairment assessment is an assessment of historical information and relevant events and circumstances to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. The Company may elect not to perform the qualitative impairment assessment for some or all of its reporting units and perform a quantitative impairment test. In performing the quantitative impairment test, the Company may determine the fair values of its reporting units by applying a market multiple, discounted cash flow, and/or an actuarial-based valuation approach.

The valuation methodologies utilized are subject to key judgments and assumptions that are sensitive to change. Estimates of fair value are inherently uncertain and represent only management's reasonable expectation regarding future developments. These estimates and the judgments and assumptions upon which the estimates are based will, in all likelihood, differ in some respects from actual future results. Declines in the estimated fair value of the Company's reporting units could result in goodwill impairments in future periods which could materially adversely affect the Company's results of operations or financial position.

12. Goodwill (continued)

Information regarding goodwill by segment, as well as Corporate & Other, was as follows:

	U.S.	Asia (1)	Latin America	EMEA	MetLife Holdings	Corporate & Other	Total
				(In millions)			
Balance at January 1, 2017							
Goodwill	$ 1,451	$ 4,596	$ 1,226	$ 1,060	$ 1,567	$ —	$ 9,900
Accumulated impairment (2)	—	—	—	—	(680)	—	(680)
Total goodwill, net	1,451	4,596	1,226	1,060	887	—	9,220
Acquisition	—	—	—	—	—	103	103
Disposition (3)	—	—	(16)	—	—	—	(16)
Effect of foreign currency translation and other	—	77	96	110	—	—	283
Balance at December 31, 2017							
Goodwill	1,451	4,673	1,306	1,170	1,567	103	10,270
Accumulated impairment	—	—	—	—	(680)	—	(680)
Total goodwill, net	1,451	4,673	1,306	1,170	887	103	9,590
Effect of foreign currency translation and other	—	17	(134)	(51)	—	—	(168)
Balance at December 31, 2018							
Goodwill	1,451	4,690	1,172	1,119	1,567	103	10,102
Accumulated impairment	—	—	—	—	(680)	—	(680)
Total goodwill, net	1,451	4,690	1,172	1,119	887	103	9,422
Acquisitions	15	4	—	—	—	—	19
Disposition (4)	—	(71)	—	—	—	—	(71)
Effect of foreign currency translation and other	—	13	(73)	(2)	—	—	(62)
Balance at December 31, 2019							
Goodwill	1,466	4,636	1,099	1,117	1,567	103	9,988
Accumulated impairment	—	—	—	—	(680)	—	(680)
Total goodwill, net	$ 1,466	$ 4,636	$ 1,099	$ 1,117	$ 887	$ 103	$ 9,308

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(1) Includes goodwill of $4.5 billion from the Japan operations at December 31, 2019, 2018 and 2017.

(2) The $680 million accumulated impairment in the MetLife Holdings segment relates to the retail annuities business impaired in 2012 that was not part of the Separation. See Note 3.

(3) In connection with the disposition of MetLife Afore, goodwill was reduced by $16 million for the year ended December 31, 2017. See Note 3.

(4) In connection with the pending disposition of MetLife Hong Kong, goodwill was reduced by $71 million for the year ended December 31, 2019. See Note 3.

13. Long-term and Short-term Debt

Long-term and short-term debt outstanding, excluding debt relating to CSEs, was as follows:

	Interest Rates (1)			December 31,					
				2019			2018		
	Range	Weighted Average	Maturity	Face Value	Unamortized Discount and Issuance Costs	Carrying Value	Face Value	Unamortized Discount and Issuance Costs	Carrying Value
				(In millions)					
Senior notes	0.50% - 6.50%	4.72%	2022 - 2046	$ 12,460	$ (81)	$ 12,379	$ 11,923	$ (79)	$ 11,844
Surplus notes	7.63% - 7.88%	7.79%	2024 - 2025	507	(4)	503	507	(4)	503
Other notes	1.76% - 6.50%	4.62%	2020 - 2058	457	(3)	454	477	(4)	473
Financing lease obligations				125	—	125	4	—	4
Total long-term debt				13,549	(88)	13,461	12,911	(87)	12,824
Total short-term debt				235	—	235	268	—	268
Total				$ 13,784	$ (88)	$ 13,696	$ 13,179	$ (87)	$ 13,092

(1) Range of interest rates and weighted average interest rates are for the year ended December 31, 2019.

The aggregate maturities of long-term debt at December 31, 2019 for the next five years and thereafter are $33 million in 2020, $27 million in 2021, $527 million in 2022, $1.0 billion in 2023, $2.0 billion in 2024 and $9.8 billion thereafter.

Financing lease obligations are collateralized and rank highest in priority, followed by unsecured senior notes and other notes, followed by subordinated debt which consists of junior subordinated debt securities (see Note 15). Payments of interest and principal on the Company's surplus notes, which are subordinate to all other obligations of the operating company issuing the notes and are senior to obligations of MetLife, Inc., may be made only with the prior approval of the insurance department of the state of domicile of the notes issuer. The Company's collateral financing arrangement (see Note 14) is supported by surplus notes of a subsidiary and, accordingly, has priority consistent with surplus notes.

Certain of the Company's debt instruments and committed facilities, as well as its unsecured revolving credit facility, contain various administrative, reporting, legal and financial covenants. The Company believes it was in compliance with all applicable financial covenants at December 31, 2019.

Senior Notes

In June 2019, MetLife, Inc. redeemed for cash and canceled its £400 million ($509 million at repayment) aggregate principal amount 5.250% senior notes due June 2020 and the remaining $368 million aggregate principal amount of its 4.750% senior notes due February 2021. The Company recorded a premium of $40 million paid in excess of the debt principal and accrued and unpaid interest to other expenses for the year ended December 31, 2019.

In May 2019, MetLife, Inc. issued the following fixed rate senior notes ("Senior Notes"), interest on which is payable semi-annually beginning in November 2019:

- ¥25.2 billion ($230 million at issuance) due May 2026 which bear interest annually at 0.495%;
- ¥64.9 billion ($591 million at issuance) due May 2029 which bear interest annually at 0.769%;
- ¥10.7 billion ($98 million at issuance) due May 2031 which bear interest annually at 0.898%;
- ¥26.5 billion ($241 million at issuance) due May 2034 which bear interest annually at 1.189%; and
- ¥24.4 billion ($222 million at issuance) due May 2039 which bear interest annually at 1.385%.

In connection with the issuances, MetLife, Inc. incurred $9 million of related costs which are amortized over the applicable term of each series of the Senior Notes. MetLife, Inc. may redeem each series of the Senior Notes at its option, in whole, but not in part, at a redemption price equal to 100% of the principal amount of the Senior Notes to be redeemed, plus accrued and unpaid interest thereon, if certain events occur affecting the U.S. tax treatment of the Senior Notes.

In June 2018, MetLife, Inc. sold FVO Brighthouse Common Stock in exchange for $944 million aggregate principal amount of MetLife Inc.'s senior notes. MetLife, Inc. purchased and canceled $343 million of its $1,035 million aggregate principal

13. Long-term and Short-term Debt (continued)

amount 6.817% senior notes due August 2018; $469 million of its $1,035 million aggregate principal amount 7.717% senior notes due February 2019 and $132 million of its $1,000 million aggregate principal amount 4.750% senior notes due February 2021. In June 2018, MetLife, Inc. additionally purchased for cash and canceled $160 million of its $1,035 million aggregate principal amount 6.817% senior notes due August 2018. The Company recorded a premium of $30 million paid in excess of the debt principal and incurred $37 million of advisory and other fees related to the exchange transaction to other expenses for the year ended December 31, 2018. See Note 3 for additional information on the FVO Brighthouse Common Stock exchange transaction.

In August 2018, MetLife, Inc. purchased for cash and canceled the remaining $566 million of its $1,035 million aggregate principal amount 7.717% senior notes due February 2019. The Company recorded a premium of $14 million paid in excess of the debt principal and accrued, unpaid interest to other expenses for the year ended December 31, 2018.

In December 2018, MetLife, Inc. purchased for cash and canceled an additional $500 million of its $1,000 million aggregate principal amount 4.750% senior notes due February 2021. The Company recorded a premium of $18 million paid in excess of the debt principal and accrued, unpaid interest to other expenses for the year ended December 31, 2018.

Term Loans

MetLife Private Equity Holdings, LLC (“MPEH”), a wholly-owned indirect investment subsidiary of MLIC, borrowed $350 million in December 2015 under a five-year credit agreement included within other notes in the table above. MPEH has pledged invested assets to secure the loans; however, these loans are non-recourse to MLIC and MetLife, Inc. In November 2017, this agreement was amended to extend the maturity to November 2022, change the amount MPEH may borrow on a revolving basis to $75 million from $100 million, and change the interest rate to a variable rate of three-month London Interbank Offered Rate (“LIBOR”) plus 3.25%, payable quarterly, from a variable rate of three-month LIBOR plus 3.70%. In December 2018, this agreement was further amended to change the interest rate to a variable rate of three-month LIBOR plus 3.10%. In December 2018, MPEH repaid $50 million of the initial borrowing. In November 2019, this agreement was further amended to extend the maturity to November 2024 and change the interest rate to a variable rate of three-month LIBOR plus 2.75%.

Short-term Debt

Short-term debt with maturities of one year or less was as follows:

	December 31,	
	2019	2018
	(Dollars in millions)	
Commercial paper	$ 99	$ 99
Short-term borrowings (1)	136	169
Total short-term debt	$ 235	$ 268
Average daily balance	$ 216	$ 429
Average days outstanding	34 days	32 days

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(1) Includes $136 million and $169 million at December 31, 2019 and 2018, respectively, of short-term debt related to repurchase agreements, secured by assets of subsidiaries.

For the years ended December 31, 2019, 2018 and 2017, the weighted average interest rate on short-term debt was 2.88%, 3.02% and 2.41%, respectively.

Interest Expense

Interest expense included in other expenses was $656 million, $827 million and $841 million for the years ended December 31, 2019, 2018 and 2017, respectively. Such amounts do not include interest expense on long-term debt related to CSEs, the collateral financing arrangement, or junior subordinated debt securities. See Notes 14 and 15.

13. Long-term and Short-term Debt (continued)

Credit and Committed Facilities

At December 31, 2019, the Company maintained a $3.0 billion unsecured revolving credit facility (the “Credit Facility”) and certain committed facilities (the “Committed Facilities”) aggregating $3.3 billion. When drawn upon, these facilities bear interest at varying rates in accordance with the respective agreements.

Credit Facility

The Company’s Credit Facility is used for general corporate purposes, to support the borrowers’ commercial paper programs and for the issuance of letters of credit. Total fees associated with the Credit Facility were $12 million, $10 million and $13 million for the years ended December 31, 2019, 2018 and 2017, respectively, and were included in other expenses. Information on the Credit Facility at December 31, 2019 was as follows:

Borrower(s)	Expiration	Maximum Capacity	Letters of Credit Issued	Drawdowns	Unused Commitments
			(In millions)		
MetLife, Inc. and MetLife Funding, Inc.	December 2021 (1)	$ 3,000 (1)	$ 746	$ —	$ 2,254

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(1) All borrowings under the Credit Facility must be repaid by December 20, 2021, except that letters of credit outstanding upon termination may remain outstanding until December 20, 2022.

Committed Facilities

Letters of credit issued under the Committed Facilities are used for collateral for certain of the Company’s affiliated reinsurance liabilities. Total fees associated with the Committed Facilities, included in other expenses, were $12 million, $15 million and $21 million for the years ended December 31, 2019, 2018 and 2017, respectively. Information on the Committed Facilities at December 31, 2019 was as follows:

Account Party/Borrower(s)	Expiration	Maximum Capacity	Letters of Credit Issued	Drawdowns	Unused Commitments
			(In millions)		
MetLife Reinsurance Company of Vermont and MetLife, Inc.	December 2024 (1), (2)	$ 400	$ 396	$ —	$ 4
MetLife Reinsurance Company of Vermont and MetLife, Inc.	December 2037 (1), (3)	2,896	2,460	—	436
Total		$ 3,296	$ 2,856	$ —	$ 440

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(1) MetLife, Inc. is a guarantor under the applicable facility.

(2) Capacity decreases in June 2022, December 2022, June 2023, December 2023 and December 2024 to $380 million, $360 million, $310 million, $260 million and $0, respectively.

(3) Capacity at December 31, 2019 of $2.7 billion increases periodically to a maximum of $2.9 billion in 2024, decreases periodically commencing in 2025 to $2.0 billion in 2037, and decreases to $0 at expiration in December 2037. Unused commitment of $436 million is based on maximum capacity. At December 31, 2019, Brighthouse is a beneficiary of $2.5 billion of letters of credit issued under this facility and, in consideration, Brighthouse reimburses MetLife, Inc. for a portion of the letter of credit fees.

In addition to the Committed Facilities, see also “— Term Loans” for information about the undrawn line of credit facility in the amount of $75 million.

14. Collateral Financing Arrangement

Information related to the collateral financing arrangement associated with the closed block (see Note 7) was as follows at:

	December 31,	
	2019	2018
	(In millions)	
Surplus notes outstanding (1)	$ 993	$ 1,060
Receivable from unaffiliated financial institution (1)	$ 130	$ 139
Pledged collateral (2)	$ 58	$ 83
Assets held in trust (2)	$ 1,390	$ 1,370

(1) Carrying value.

(2) Estimated fair value.

Interest expense on the collateral financing arrangement was $38 million, $37 million and $30 million for the years ended December 31, 2019, 2018 and 2017, respectively, which is included in other expenses.

In December 2007, MLIC reinsured a portion of its closed block liabilities to MetLife Reinsurance Company of Charleston ("MRC"), a wholly-owned subsidiary of MetLife, Inc. In connection with this transaction, MRC issued, to investors placed by an unaffiliated financial institution, $2.5 billion in aggregate principal amount of 35-year surplus notes to provide statutory reserve support for the assumed closed block liabilities. Interest on the surplus notes accrues at an annual rate of three-month LIBOR plus 0.55%, payable quarterly. The ability of MRC to make interest and principal payments on the surplus notes is contingent upon South Carolina regulatory approval.

Simultaneously with the issuance of the surplus notes, MetLife, Inc. entered into an agreement with the unaffiliated financial institution, under which MetLife, Inc. is entitled to the interest paid by MRC on the surplus notes of three-month LIBOR plus 0.55% in exchange for the payment of three-month LIBOR plus 1.12%, payable quarterly on such amount as adjusted, as described below. MetLife, Inc. may also be required to pledge collateral or make payments to the unaffiliated financial institution related to any decline in the estimated fair value of the surplus notes. Any such payments are accounted for as a receivable and included in other assets on the Company's consolidated balance sheets and do not reduce the principal amount outstanding of the surplus notes. Such payments, however, reduce the amount of interest payments due from MetLife, Inc. under the agreement. Any payment received from the unaffiliated financial institution reduces the receivable by an amount equal to such payment and also increases the amount of interest payments due from MetLife, Inc. under the agreement. In addition, the unaffiliated financial institution may be required to pledge collateral to MetLife, Inc. related to any increase in the estimated fair value of the surplus notes.

For the years ended December 31, 2019, 2018 and 2017, following regulatory approval, MRC repurchased $67 million, $61 million and $153 million, respectively, in aggregate principal amount of the surplus notes. Cumulatively, since December 2007, MRC repurchased $1.5 billion in aggregate principal amount of the surplus notes as of December 31, 2019. Payments made by the Company in 2019, 2018 and 2017 associated with the repurchases were exclusive of accrued interest on the surplus notes. In connection with the repurchases for the years ended December 31, 2019, 2018 and 2017, the Company received payments in the aggregate amount of $9 million, $7 million and $20 million, respectively, from the unaffiliated financial institution, which reduced the amount receivable from the unaffiliated financial institution by the same amounts. No other payments related to an increase or decrease in the estimated fair value of the surplus notes were made by MetLife, Inc. or received from the unaffiliated financial institution for the years ended December 31, 2019, 2018 or 2017.

A majority of the proceeds from the offering of the surplus notes was placed in a trust, which is consolidated by the Company, to support MRC's statutory obligations associated with the assumed closed block liabilities. For the years ended December 31, 2019 and 2018, MRC transferred $2 million and $97 million, respectively, to the trust out of its general account. For the year ended December 31, 2017, MRC transferred $3 million out of the trust to its general account. The assets are principally invested in fixed maturity securities AFS and are presented as such within the Company's consolidated balance sheets, with the related income included within net investment income on the Company's consolidated statements of operations.

15. Junior Subordinated Debt Securities

Outstanding Junior Subordinated Debt Securities

Outstanding junior subordinated debt securities and exchangeable surplus trust securities which are exchangeable for junior subordinated debt securities prior to redemption or repayment, were as follows:

						December 31,					
						2019			2018		
Issuer	Issue Date	Interest Rate (1)	Scheduled Redemption Date	Interest Rate Subsequent to Scheduled Redemption Date (2)	Final Maturity	Face Value	Unamortized Discount and Issuance Costs	Carrying Value	Face Value	Unamortized Discount and Issuance Costs	Carrying Value
						(In millions)					
MetLife, Inc.	December 2006	6.400%	December 2036	LIBOR + 2.205%	December 2066	$ 1,250	$ (18)	$ 1,232	$ 1,250	$ (19)	$ 1,231
MetLife Capital Trust IV (3)	December 2007	7.875%	December 2037	LIBOR + 3.960%	December 2067	700	(15)	685	700	(16)	684
MetLife, Inc.	April 2008	9.250%	April 2038	LIBOR + 5.540%	April 2068	750	(10)	740	750	(11)	739
MetLife, Inc.	July 2009	10.750%	August 2039	LIBOR + 7.548%	August 2069	500	(7)	493	500	(7)	493
						$ 3,200	$ (50)	$ 3,150	$ 3,200	$ (53)	$ 3,147

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(1) Prior to the scheduled redemption date, interest is payable semiannually in arrears.

(2) In the event the securities are not redeemed on or before the scheduled redemption date, interest will accrue after such date at an annual rate of three-month LIBOR plus the indicated margin, payable quarterly in arrears.

(3) MetLife Capital Trust IV is a VIE which is consolidated on the financial statements of the Company. The securities issued by this entity are exchangeable surplus trust securities, which are exchangeable for a like amount of MetLife, Inc.'s junior subordinated debt securities on the scheduled redemption date, mandatorily under certain circumstances, and at any time upon MetLife, Inc. exercising its option to redeem the securities.

In connection with each of the securities described above, MetLife, Inc. may redeem or may cause the redemption of the securities (i) in whole or in part, at any time on or after the date five years prior to the scheduled redemption date at their principal amount plus accrued and unpaid interest to, but excluding, the date of redemption, or (ii) in certain circumstances, in whole or in part, prior to the date five years prior to the scheduled redemption date at their principal amount plus accrued and unpaid interest to, but excluding, the date of redemption or, if greater, a make-whole price. MetLife, Inc. also has the right to, and in certain circumstances the requirement to, defer interest payments on the securities for a period up to 10 years. Interest compounds during such periods of deferral. If interest is deferred for more than five consecutive years, MetLife, Inc. is required to use proceeds from the sale of its common stock or warrants on common stock to satisfy this interest payment obligation. In connection with each of the securities described above, MetLife, Inc. entered into a separate replacement capital covenant ("RCC"). As part of each RCC, MetLife, Inc. agreed that it will not repay, redeem, or purchase the securities on or before a date 10 years prior to the final maturity date of each issuance, unless, subject to certain limitations, it has received cash proceeds during a specified period from the sale of specified replacement securities. Each RCC will terminate upon the occurrence of certain events, including an acceleration of the applicable securities due to the occurrence of an event of default. The RCCs are not intended for the benefit of holders of the securities and may not be enforced by them. Rather, each RCC is for the benefit of the holders of a designated series of MetLife, Inc.'s other indebtedness (the "Covered Debt"). Initially, the Covered Debt for each of the securities described above was MetLife, Inc.'s 5.700% senior notes due 2035 (the "5.700% Senior Notes"). As a result of the issuance of MetLife, Inc.'s 10.750% Fixed-to-Floating Rate Junior Subordinated Debentures due 2069 (the "10.750% JSDs"), the 10.750% JSDs became the Covered Debt with respect to, and in accordance with, the terms of the RCC relating to MetLife, Inc.'s 6.40% Fixed-to-Floating Rate Junior Subordinated Debentures due 2066. The 5.700% Senior Notes continue to be the Covered Debt with respect to, and in accordance with, the terms of the RCCs relating to each of MetLife Capital Trust IV's 7.875% Fixed-to-Floating Rate Exchangeable Surplus Trust Securities, MetLife, Inc.'s 9.250% Fixed-to-Floating Rate Junior Subordinated Debentures and the 10.750% JSDs. MetLife, Inc. also entered into a replacement capital obligation which will commence during the six-month period prior to the scheduled redemption date of each of the securities described above and under which MetLife, Inc. must use reasonable commercial efforts to raise replacement capital to permit repayment of the securities through the issuance of certain qualifying capital securities.

15. Junior Subordinated Debt Securities (continued)

Interest expense on outstanding junior subordinated debt securities was $261 million, $258 million and $258 million for the years ended December 31, 2019, 2018 and 2017, respectively, which is included in other expenses.

16. Equity

Preferred Stock

Preferred stock authorized, issued and outstanding was as follows at both December 31, 2019 and 2018:

Series	Shares Authorized	Shares Issued	Shares Outstanding
Series A preferred stock	27,600,000	24,000,000	24,000,000
Series C preferred stock	1,500,000	1,500,000	1,500,000
Series D preferred stock	500,000	500,000	500,000
Series E preferred stock	32,200	32,200	32,200
Series A Junior Participating Preferred Stock	10,000,000	—	—
Not designated	160,367,800	—	—
Total	200,000,000	26,032,200	26,032,200

In June 2018, MetLife, Inc. issued 32,200 shares of 5.625% Non-Cumulative Preferred Stock, Series E (the "Series E preferred stock") with a $0.01 par value per share and a liquidation preference of $25,000 per share, for aggregate net proceeds of $780 million. MetLife, Inc. deposited the Series E preferred stock under a deposit agreement with a depositary, which issued interests in fractional shares of the Series E preferred stock in the form of depositary shares ("Series E Depositary Shares") evidenced by depositary receipts; each Series E Depositary Share representing 1/1,000th interest in a share of the Series E preferred stock. In connection with the offering of the Series E Depositary Shares, MetLife, Inc. incurred approximately $25 million of issuance costs which have been recorded as a reduction of additional paid-in capital.

In March 2018, MetLife, Inc. issued 500,000 shares of 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D (the "Series D preferred stock") with a $0.01 par value per share and a liquidation preference of $1,000 per share, for aggregate net proceeds of $494 million. In connection with the offering of the Series D preferred stock, MetLife, Inc. incurred $6 million of issuance costs which have been recorded as a reduction of additional paid-in capital.

See Note 23 for information on MetLife, Inc.'s issuance of preferred stock subsequent to December 31, 2019.

The outstanding preferred stock ranks senior to MetLife, Inc.'s common stock with respect to the payment of dividends and distributions upon liquidation, dissolution or winding-up. Holders of the outstanding preferred stock are entitled to receive dividend payments only when, as and if declared by MetLife, Inc.'s Board of Directors or a duly authorized committee thereof. Dividends on the preferred stock are not cumulative or mandatory. Accordingly, if dividends are not declared on the preferred stock of the applicable series for any dividend period, then any accrued dividends for that dividend period will cease to accrue and be payable. If a dividend is not declared before the dividend payment date for any such dividend period, MetLife, Inc. will have no obligation to pay dividends accrued for such dividend period whether or not dividends are declared for any future period. No dividends may be paid or declared on MetLife, Inc.'s common stock (or any other securities ranking junior to the preferred stock) and MetLife, Inc. may not purchase, redeem, or otherwise acquire its common stock (or other such junior stock) unless the full dividends for the latest completed dividend period on all outstanding shares of preferred stock, and any parity stock, have been declared and paid or provided for.

The table below presents the dividend rates of MetLife, Inc.'s preferred stock outstanding at December 31, 2019:

Series	Per Annum Dividend Rate
A	Three-month LIBOR + 1.00%, with floor of 4.00%, payable quarterly in March, June, September and December
C	5.250% from issuance date to, but excluding, June 15, 2020, payable semiannually in June and December; three-month LIBOR + 3.575%, payable quarterly in March, June, September and December, thereafter
D	5.875% from issuance date to, but excluding, March 15, 2028, payable semiannually in March and September commencing in September 2018; three-month LIBOR + 2.959% payable quarterly in March, June, September and December, thereafter
E	5.625% from issuance date, payable quarterly in March, June, September and December, commencing in September 2018

In the table above, dividends on each series of preferred stock are payable in arrears for the periods specified, if declared.

16. Equity (continued)

MetLife, Inc. is prohibited from declaring dividends on the Floating Rate Non-Cumulative Preferred Stock, Series A (the "Series A preferred stock") if it fails to meet specified capital adequacy, net income and stockholders' equity levels. See "— Dividend Restrictions — MetLife, Inc."

Holders of the preferred stock do not have voting rights except in certain circumstances, including where the dividends have not been paid for an equivalent of six or more dividend payment periods whether or not those periods are consecutive. Under such circumstances, the holders of the preferred stock have certain voting rights with respect to members of the Board of Directors of MetLife, Inc.

The preferred stock is not subject to any mandatory redemption, sinking fund, retirement fund, purchase fund or similar provisions. The Series A preferred stock is redeemable at MetLife, Inc.'s option in whole or in part, at a redemption price of $25 per share of preferred stock, plus declared and unpaid dividends.

MetLife, Inc. may, at its option, redeem the 5.25% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C (the "Series C preferred stock"), (i) in whole but not in part, at any time prior to June 15, 2020, within 90 days after the occurrence of a "regulatory capital event," and (ii) in whole or in part, from time to time, on or after June 15, 2020, in each case, at a redemption price equal to $1,000 per Series C preferred share, plus an amount equal to any dividends per share that have accrued but not been declared and paid for the then-current dividend period to, but excluding, such redemption date. A "regulatory capital event" could occur as a result of a change or proposed change in capital adequacy rules (or the interpretation or application thereof) that would apply to MetLife, Inc. from rules (or the interpretation or application thereof) in effect with respect to bank holding companies as of June 1, 2015 that would create a more than insubstantial risk, as determined by MetLife, Inc., that the Series C preferred stock would not be treated as "Tier 1 Capital" or as capital with attributes similar to those of Tier 1 Capital.

MetLife, Inc. may, at its option, redeem the Series D preferred stock, (i) in whole but not in part at any time prior to March 15, 2028, within 90 days after the occurrence of a "rating agency event," at a redemption price equal to $1,020 per share of Series D preferred stock, plus an amount equal to any dividends per share that have accrued but have not been declared and paid for the then-current dividend period to, but excluding, the redemption date; (ii) in whole but not in part, at any time prior to March 15, 2028, within 90 days after the occurrence of a "regulatory capital event"; and (iii) in whole or in part, at any time or from time to time, on or after March 15, 2028, in the case of (ii) or (iii), at a redemption price equal to $1,000 per share of Series D preferred stock, plus an amount equal to any dividends per share that have accrued but not been declared and paid for the then-current dividend period to, but excluding, such redemption date. MetLife, Inc. may, at its option, redeem the Series E preferred stock, (i) in whole but not in part at any time prior to June 15, 2023, within 90 days after the occurrence of a "rating agency event," at a redemption price equal to $25,500 per share of Series E preferred stock (equivalent to $25.50 per Series E Depositary Share), plus an amount equal to any dividends per share that have accrued but have not been declared and paid for the then-current dividend period to, but excluding, the redemption date; (ii) in whole but not in part, at any time prior to June 15, 2023, within 90 days after the occurrence of a "regulatory capital event"; and (iii) in whole or in part, at any time or from time to time, on or after June 15, 2023, in the case of (ii) or (iii), at a redemption price equal to $25,000 per share of Series E preferred stock (equivalent to $25 per Series E Depositary Share), plus an amount equal to any dividends per share that have accrued but not been declared and paid for the then-current dividend period to, but excluding, such redemption date. A "rating agency event" means that any nationally recognized statistical rating organization that then publishes a rating for MetLife, Inc. amends, clarifies or changes the criteria used to assign equity credit to securities like the Series D preferred stock or Series E preferred stock, which results in the lowering of the equity credit assigned to the Series D preferred stock or Series E preferred stock, as applicable, or shortens the length of time that the Series D preferred stock or Series E preferred stock, as applicable, is assigned a particular level of equity credit. A "regulatory capital event" could occur as a result of a change or proposed change in capital adequacy rules (or the interpretation or application thereof) of any capital regulator, including but not limited to the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"), the Federal Insurance Office, the National Association of Insurance Commissioners ("NAIC") or any state insurance regulator as may then have group-wide oversight of MetLife, Inc.'s regulatory capital, from rules (or the interpretation or application thereof) in effect as of March 22, 2018, in the case of the Series D preferred stock, or June 4, 2018, in the case of the Series E preferred stock, that would create a more than insubstantial risk, as determined by MetLife, Inc., that the Series D preferred stock or the Series E preferred stock, as applicable, would not be treated as "Tier 1 capital" or as capital with attributes similar to those of Tier 1 capital, except that a "regulatory capital event" will not include a change or proposed change (or the interpretation or application thereof) that would result in the adoption of any criteria substantially the same as the criteria in the capital adequacy rules of the Federal Reserve Board applicable to bank holding companies as of March 22, 2018, in the case of the Series D preferred stock, or June 4, 2018, in the case of the Series E preferred stock.

16. Equity (continued)

On December 31, 2018, RCCs related to the Series A preferred stock and the Series C preferred stock expired.

The declaration, record and payment dates, as well as per share and aggregate dividend amounts, for MetLife, Inc.'s preferred stock were as follows for the years ended December 31, 2019, 2018 and 2017:

			Preferred Stock Dividend							
			Series A		Series C		Series D		Series E	
Declaration Date	Record Date	Payment Date	Per Share	Aggregate	Per Share	Aggregate	Per Share	Aggregate	Per Share	Aggregate
			(In millions, except per share data)							
Year Ended December 31, 2019										
November 15, 2019	December 1, 2019	December 16, 2019	$ 0.253	$ 6	$ —	$ —	$ —	$ —	$ —	$ —
November 15, 2019	November 30, 2019	December 16, 2019	—	—	26.250	40	—	—	351.563	11
August 15, 2019	September 1, 2019	September 16, 2019	0.253	6	—	—	—	—	—	—
August 15, 2019	August 31, 2019	September 16, 2019	—	—	—	—	29.375	15	351.563	11
May 15, 2019	May 31, 2019	June 17, 2019	0.261	6	26.250	39	—	—	351.563	12
March 5, 2019	February 28, 2019	March 15, 2019	0.250	6	—	—	—	—	—	—
February 15, 2019	February 28, 2019	March 15, 2019	—	—	—	—	29.375	15	351.563	11
Total			$ 1.017	$ 24	$ 52.500	$ 79	$ 58.750	$ 30	$1,406.252	$ 45
Year Ended December 31, 2018										
November 15, 2018	November 30, 2018	December 17, 2018	$ 0.253	$ 6	$ 26.250	$ 40	$ —	$ —	$ 351.563	$ 11
August 15, 2018	August 31, 2018	September 17, 2018	0.256	6	—	—	28.233	14	394.531	12
May 15, 2018	May 31, 2018	June 15, 2018	0.256	7	26.250	39	—	—	—	—
March 5, 2018	February 28, 2018	March 15, 2018	0.250	6	—	—	—	—	—	—
Total			$ 1.015	$ 25	$ 52.500	$ 79	$ 28.233	$ 14	$ 746.094	$ 23
Year Ended December 31, 2017										
November 15, 2017	November 30, 2017	December 15, 2017	$ 0.253	$ 6	$ 26.250	$ 39	$ —	$ —	$ —	$ —
August 15, 2017	August 31, 2017	September 15, 2017	0.256	6	—	—	—	—	—	—
May 15, 2017	May 31, 2017	June 15, 2017	0.256	7	26.250	39	—	—	—	—
March 6, 2017	February 28, 2017	March 15, 2017	0.250	6	—	—	—	—	—	—
Total			$ 1.015	$ 25	$ 52.500	$ 78	$ —	$ —	$ —	$ —

See Note 23 for information on subsequent preferred stock dividends declared.

Common Stock

Issuances

For the years ended December 31, 2019, 2018 and 2017, MetLife, Inc. issued 5,856,057 shares, 3,114,141 shares and 4,680,116 shares of its common stock for $199 million, $108 million and $158 million, respectively, in connection with stock option exercises and other stock-based awards. There were no shares of common stock issued from treasury stock for each of the years ended December 31, 2019, 2018 and 2017.

Repurchase Authorizations

MetLife, Inc. announced that its Board of Directors authorized common stock repurchases as follows:

Announcement Date	Authorization Amount	Authorization Remaining at December 31, 2019
	(In millions)	
July 31, 2019	$ 2,000	$ 985
November 1, 2018	$ 2,000	$ —
May 22, 2018	$ 1,500	$ —
November 1, 2017	$ 2,000	$ —

16. Equity (continued)

Under these authorizations, MetLife, Inc. may purchase its common stock from the MetLife Policyholder Trust, in the open market (including pursuant to the terms of a pre-set trading plan meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934 ("Exchange Act")), and in privately negotiated transactions. Common stock repurchases are subject to the discretion of MetLife, Inc.'s Board of Directors and will depend upon the Company's capital position, liquidity, financial strength and credit ratings, general market conditions, the market price of MetLife, Inc.'s common stock compared to management's assessment of the stock's underlying value, applicable regulatory approvals, and other legal and accounting factors.

For the years ended December 31, 2019, 2018 and 2017, MetLife, Inc. repurchased 49,131,501 shares, 88,029,138 shares and 56,599,540 shares under these repurchase authorizations for $2.3 billion, $4.0 billion, and $2.9 billion, respectively. At December 31, 2019, MetLife, Inc. had $985 million remaining under its common stock repurchase authorization. See Note 23 for information on subsequent common stock repurchases.

Dividends

The declaration, record and payment dates, as well as per share and aggregate dividend amounts, for MetLife, Inc.'s common stock were as follows for the years ended December 31, 2019, 2018 and 2017:

Declaration Date	Record Date	Payment Date	Common Stock Dividend Per Share	Common Stock Dividend Aggregate
			(In millions, except per share data)	
Year Ended December 31, 2019				
October 22, 2019	November 5, 2019	December 13, 2019	$ 0.440	$ 406
July 8, 2019	August 6, 2019	September 13, 2019	0.440	413
April 23, 2019	May 7, 2019	June 13, 2019	0.440	419
January 7, 2019	February 5, 2019	March 13, 2019	0.420	405
Total			$ 1.740	$ 1,643
Year Ended December 31, 2018				
October 23, 2018	November 6, 2018	December 13, 2018	$ 0.420	$ 415
July 6, 2018	August 6, 2018	September 13, 2018	0.420	419
April 24, 2018	May 7, 2018	June 13, 2018	0.420	428
January 5, 2018	February 5, 2018	March 13, 2018	0.400	416
Total			$ 1.660	$ 1,678
Year Ended December 31, 2017				
October 24, 2017	November 6, 2017	December 13, 2017	$ 0.400	$ 422
July 7, 2017	August 7, 2017	September 13, 2017	0.400	427
April 25, 2017	May 8, 2017	June 13, 2017	0.400	431
January 6, 2017	February 6, 2017	March 13, 2017	0.400	437
Total			$ 1.600	$ 1,717

See Note 23 for information on subsequent common stock dividends declared.

The funding of the cash dividends and operating expenses of MetLife, Inc. is primarily provided by cash dividends from MetLife, Inc.'s insurance subsidiaries. The statutory capital and surplus, or net assets, of MetLife, Inc.'s insurance subsidiaries are subject to regulatory restrictions except to the extent that dividends are allowed to be paid in a given year without prior regulatory approval. Dividends exceeding these limitations can generally be made subject to regulatory approval. The nature and amount of these dividend restrictions, as well as the statutory capital and surplus of MetLife, Inc.'s U.S. insurance subsidiaries, are disclosed in "— Statutory Equity and Income" and "— Dividend Restrictions — Insurance Operations." MetLife, Inc.'s principal non-U.S. insurance operations are branches or subsidiaries of American Life Insurance Company ("American Life"), a U.S. insurance subsidiary of the Company. In addition, the payment of dividends by MetLife, Inc. to its shareholders is also subject to restrictions. See "— Dividend Restrictions — MetLife, Inc."

Stock-Based Compensation Plans

Plans for Employees and Agents

Under the MetLife, Inc. 2015 Stock and Incentive Compensation Plan (the "2015 Stock Plan"), MetLife, Inc. may grant awards to employees and agents in the form of Stock Options, Stock Appreciation Rights, Performance Shares or Performance Share Units, Restricted Stock or Restricted Stock Units, Cash-Based Awards and Stock-Based Awards (each, as applicable, as defined in the 2015 Stock Plan with reference to shares of MetLife, Inc. common stock ("Shares")). Awards under the 2015 Stock Plan and its predecessor plan, the MetLife, Inc. 2005 Stock and Incentive Compensation Plan (the "2005 Stock Plan") were outstanding at December 31, 2019. MetLife, Inc. granted all awards to employees and agents in 2019 under the 2015 Stock Plan.

The aggregate number of Shares authorized for issuance under the 2015 Stock Plan at December 31, 2019 was 35,579,009.

With the exception of cash-settled awards and Performance Shares MetLife, Inc. granted in 2013 through 2018, which are re-measured quarterly, MetLife recognizes compensation expense related to awards under the 2005 Stock Plan or 2015 Stock Plan based on the number of awards it expects to vest, which represents the awards granted less expected forfeitures over the life of the award, as estimated at the date of grant. Unless MetLife observes a material deviation from the assumed forfeiture rate during the term in which the awards are expensed, MetLife recognizes any adjustment necessary to reflect differences in actual experience in the period the award becomes payable or exercisable.

Compensation expense related to awards under the 2005 Stock Plan principally relates to the issuance of Stock Options. Under the 2015 Stock Plan, compensation expense principally relates to Stock Options, Unit Options, Performance Shares, Performance Units, Restricted Stock Units and Restricted Units. MetLife, Inc. granted the majority of each year's awards under the 2005 Stock Plan and 2015 Stock Plan in the first quarter of the year.

Awards that have become payable in Shares but the issuance of which has been deferred ("Deferred Shares"), payable to employees or agents related to awards under all plans equaled 902,102 Shares at December 31, 2019.

MetLife granted cash-settled awards based in whole or in part on the price of Shares or changes in the price of Shares ("Phantom Stock-Based Awards") under the MetLife, Inc. International Unit Option Incentive Plan, the MetLife International Performance Unit Incentive Plan, and the MetLife International Restricted Unit Incentive Plan prior to 2015, and under the 2015 Stock Plan in 2015 and later.

Plans for Non-Management Directors

Under the MetLife, Inc. 2015 Non-Management Director Stock Compensation Plan (the "2015 Director Stock Plan"), MetLife, Inc. may grant non-management Directors of MetLife, Inc. awards in the form of nonqualified Stock Options, Stock Appreciation Rights, Restricted Stock or Restricted Stock Units, or Stock-Based Awards (each, as applicable, as defined in the 2015 Director Stock Plan with reference to Shares).

The only awards MetLife, Inc. granted under the 2015 Director Stock Plan and its predecessor plan, the MetLife, Inc. 2005 Non-Management Director Stock Compensation Plan (the "2005 Director Stock Plan"), through December 31, 2019 were Stock-Based Awards that vested immediately. As a result, no awards under the 2005 Director Stock Plan or 2015 Director Stock Plan remained outstanding at December 31, 2019.

The aggregate number of Shares authorized for issuance under the 2015 Director Stock Plan at December 31, 2019 was 1,612,301.

MetLife recognizes compensation expense related to awards under the 2015 Director Stock Plan based on the number of Shares awarded.

Deferred Shares payable to Directors related to awards under the 2005 Director Stock Plan, 2015 Director Stock Plan, or earlier applicable plans equaled 275,521 Shares at December 31, 2019.

16. Equity (continued)

Compensation Expense Related to Stock-Based Compensation

The components of compensation expense related to stock-based compensation includes compensation expense related to Phantom Stock-Based Awards and excludes the insignificant compensation expense related to the 2015 Director Stock Plan. Those components were:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Stock Options and Unit Options	$ 7	$ 6	$ 8
Performance Shares and Performance Units (1)	89	23	62
Restricted Stock Units and Restricted Units	54	57	58
Total compensation expense	$ 150	$ 86	$ 128
Income tax benefit	$ 32	$ 18	$ 45

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(1) The Company may further adjust the number of Performance Shares and Performance Units it expects to vest, and the related compensation expense, if management changes its estimate of the most likely final performance factor.

The following table presents the total unrecognized compensation expense related to stock-based compensation and the expected weighted average period over which these expenses will be recognized at:

	December 31, 2019	
	Expense	Weighted Average Period
	(In millions)	(Years)
Stock Options	$ 3	1.74
Performance Shares	$ 31	1.69
Restricted Stock Units	$ 39	1.91

Equity Awards

Stock Options

Stock Options are the contingent right of award holders to purchase Shares at a stated price for a limited time. All Stock Options have an exercise price equal to the closing price of a Share reported on the New York Stock Exchange ("NYSE") on the date of grant and have a maximum term of 10 years. The majority of Stock Options MetLife, Inc. has granted have become or will become exercisable at a rate of one-third of each award on each of the first three anniversaries of the grant date. Other Stock Options have become or will become exercisable on the third anniversary of the grant date. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances.

16. Equity (continued)

Stock Option Activity

A summary of the activity related to Stock Options was as follows:

	Shares Under Option	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (1)
			(Years)	(In millions)
Outstanding at January 1, 2019	12,355,294	$ 36.70	3.56	$ 66
Granted	657,226	$ 44.65		
Exercised	(3,846,478)	$ 32.38		
Expired (2)	(113,847)	$ 28.35		
Forfeited (3)	(40,872)	$ 44.97		
Outstanding at December 31, 2019	9,011,323	$ 39.20	3.73	$ 106
Vested and expected to vest at December 31, 2019	8,996,220	$ 39.20	3.73	$ 106
Exercisable at December 31, 2019	7,833,189	$ 38.28	3.02	$ 99

(1) The intrinsic value of each Stock Option is the closing price on a particular date less the exercise price of the Stock Option, so long as the difference is greater than zero. The aggregate intrinsic value of all outstanding Stock Options is computed using the closing Share price on December 31, 2019 of $50.97 and December 31, 2018 of $41.06, as applicable.

(2) Expired options were exercisable, but unexercised, as of their expiration date.

(3) Forfeited awards were either (a) unvested or unexercisable at the end of the awardholder's employment, where the awardholder did not meet the criteria for post-employment award continuation; or (b) held by awardholders the Company terminated from employment for cause as defined in the terms of the awards.

MetLife estimates the fair value of Stock Options on the date of grant using a binomial lattice model. The significant assumptions the Company uses in its binomial lattice model include: expected volatility of the price of Shares; risk-free rate of return; dividend yield on Shares; exercise multiple; and the post-vesting termination rate.

MetLife bases expected volatility on an analysis of historical prices of Shares and call options on Shares traded on the open market. The Company uses a weighted-average of the implied volatility for publicly-traded call options with the longest remaining maturity nearest to the money as of each valuation date and the historical volatility, calculated using monthly closing prices of Shares. The Company chose a monthly measurement interval for historical volatility as this interval reflects the Company's view that employee option exercise decisions are based on longer-term trends in the price of the underlying Shares rather than on daily price movements.

The Company's binomial lattice model incorporates different risk-free rates based on the imputed forward rates for U.S. Treasury Strips for each year over the contractual term of the option. The table below presents the full range of rates that were used for options granted during the respective periods.

The Company determines dividend yield based on historical dividend distributions compared to the price of the underlying Shares as of the valuation date and held constant over the life of the Stock Option.

The Company's binomial lattice model incorporates the term of the Stock Options, expected exercise behavior and a post-vesting termination rate, or the rate at which vested options are exercised or expire prematurely due to termination of employment. From these factors, the model derives an expected life of the Stock Option. The model's exercise behavior is a multiple that reflects the ratio of stock price at the time of exercise over the exercise price of the Stock Option at the time the model expects holders to exercise. The model derives the exercise multiple from actual exercise activity. The model determines the post-vesting termination rate from actual exercise experience and expiration activity under the Incentive Plans.

16. Equity (continued)

The following table presents the weighted average assumptions, with the exception of risk-free rate (which is expressed as a range), that the model uses to determine the fair value of unexercised Stock Options:

	Years Ended December 31,		
	2019	2018	2017
Dividend yield	3.76%	3.52%	3.05%
Risk-free rate of return	2.52% - 3.32%	2.02% - 3.40%	0.94% - 3.22%
Expected volatility	30.27%	34.18%	34.19%
Exercise multiple	1.43	1.43	1.43
Post-vesting termination rate	3.86%	3.77%	2.94%
Contractual term (years)	10	10	10
Expected life (years)	6	6	6
Weighted average exercise price of stock options granted	$44.65	$45.50	$46.85
Weighted average fair value of stock options granted	$10.36	$11.87	$12.36

The following table presents a summary of Stock Option exercise activity:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Total intrinsic value of stock options exercised	$ 60	$ 24	$ 59
Cash received from exercise of stock options	$ 125	$ 54	$ 116
Income tax benefit realized from stock options exercised	$ 13	$ 5	$ 20

Performance Shares

Performance Shares are units that, if they vest, are multiplied by a performance factor to produce a number of final Performance Shares which are payable in Shares. MetLife accounts for Performance Shares as equity awards. MetLife, Inc. does not credit Performance Shares with dividend-equivalents for dividends paid on Shares. Performance Share awards normally vest in their entirety at the end of the three-year performance period. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances.

For awards granted for the 2018 – 2020 and earlier performance periods in progress through December 31, 2019, the vested Performance Shares will be multiplied by a performance factor of 0% to 175% that the MetLife, Inc. Compensation Committee will determine in its discretion (subject to MetLife, Inc. meeting threshold performance goals related to its adjusted income or total shareholder return). In doing so, the Compensation Committee may consider MetLife, Inc.'s total shareholder return relative to the performance of its competitors and adjusted return on MetLife, Inc.'s common stockholders' equity relative to its financial plan. MetLife estimates the fair value of Performance Shares each quarter until they become payable.

For awards granted for the 2019 – 2021 and later performance periods in progress through December 31, 2019, the vested Performance Shares will be multiplied by a performance factor of 0% to 175% that the MetLife, Inc. Compensation Committee will determine by (a) the Company's annual adjusted return on equity performance over the three-year period compared to the Company's three-year business plan goal; (b) the Company's total shareholder return over the same three-year period compared to a peer group of companies; and (c) a cap of 100% if the Company's total shareholder return for the three-year period is zero or less. The Compensation Committee will exclude the impact of a "Significant Event" from the Company's adjusted return on equity or the business plan goal, to the extent the Committee determines in its informed judgment that the event changed the adjusted return on equity performance factor component. "Significant Events" include accounting changes, business combinations, restructuring, nonrecurring tax events, common share issuance or repurchases, catastrophes, litigation and regulatory settlements, asbestos and environment events, certain specified classes of non-coupon investments, and other significant nonrecurring, infrequent, or unusual items.

The performance factor for the 2016 - 2018 performance period was 87.7%.

16. Equity (continued)

Restricted Stock Units

Restricted Stock Units are units that, if they vest, are payable in an equal number of Shares. MetLife accounts for Restricted Stock Units as equity awards. MetLife, Inc. does not credit Restricted Stock Units with dividend-equivalents for dividends paid on Shares. Accordingly, the estimated fair value of Restricted Stock Units is based upon the closing price of Shares on the date of grant, reduced by the present value of estimated dividends to be paid on that stock.

The majority of Restricted Stock Units normally vest in thirds on or shortly after the first three anniversaries of their grant date. Other Restricted Stock Units normally vest in their entirety on the third or later anniversary of their grant date. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances.

Performance Share and Restricted Stock Unit Activity

The following table presents a summary of Performance Share and Restricted Stock Unit activity:

	Performance Shares		Restricted Stock Units	
	Shares	Weighted Average Fair Value (1)	Units	Weighted Average Fair Value (1)
Outstanding at January 1, 2019	4,044,234	$ 34.18	2,946,269	$ 38.52
Granted	1,645,468	$ 39.35	1,610,594	$ 39.71
Forfeited (2)	(149,114)	$ 41.29	(161,131)	$ 40.37
Payable (3)	(1,594,846)	$ 34.30	(1,501,304)	$ 36.16
Outstanding at December 31, 2019	3,945,742	$ 43.40	2,894,428	$ 40.31
Vested and expected to vest at December 31, 2019	3,872,543	$ 43.40	2,837,658	$ 40.31

(1) Values for awards outstanding at January 1, 2019, represent weighted average number of awards multiplied by the fair value per Share at December 31, 2018. Otherwise, all values represent weighted average of number of awards multiplied by the fair value per Share at December 31, 2019. Fair value of Restricted Stock Units on December 31, 2019 was equal to Grant Date fair value.

(2) Forfeited awards were either (a) unvested or unexercisable at the end of the awardholder's employment, where the awardholder did not meet the criteria for post-employment award continuation; or (b) held by awardholders the Company terminated from employment for cause as defined in the terms of the awards.

(3) Includes both Shares paid and Deferred Shares for later payment.

Performance Share amounts above represent aggregate awards at target, and do not reflect potential increases or decreases that may result from the performance factor. At December 31, 2019, the performance period for the 2017 — 2019 Performance Share grants was completed, but the performance factor had not yet been determined. Included in the immediately preceding table are 1,068,099 outstanding Performance Shares to which the 2017 — 2019 performance factor will be applied.

Liability Awards (Phantom Stock-Based Awards)

Certain MetLife subsidiaries have a liability for Phantom Stock-Based Awards in the form of Unit Options, Performance Units, and/or Restricted Units. These Share-based cash settled awards are recorded as liabilities until MetLife makes payment. The fair value of unsettled or unvested liability awards is re-measured at the end of each reporting period based on the change in fair value of one Share. The liability and corresponding expense are adjusted accordingly until the award is settled.

16. Equity (continued)

Unit Options

Unit Options are the contingent right of award holders to receive a cash payment equal to the closing price of a Share on the exercise date, less the closing price on the grant date, if the difference is greater than zero, for a limited time. All Unit Options have an exercise price equal to the closing price of a Share reported on the NYSE on the date of grant and have a maximum term of 10 years. The majority of Unit Options have become or will become eligible for exercise at a rate of one-third of each award on each of the first three anniversaries of the grant date. Other Unit Options have become or will become eligible for exercise on the third anniversary of the grant date. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances.

Performance Units

Performance Units are units that, if they vest, are multiplied by a performance factor to produce a number of final Performance Units which are payable in cash equal to the closing price of a Share on a date following the last day of the three-year performance period. Performance Units are accounted for as liability awards. MetLife, Inc. does not credit them with dividend-equivalents for dividends paid on Shares. Accordingly, the estimated fair value of Performance Units is based upon the closing price of a Share on the date of grant, reduced by the present value of estimated dividends to be paid on that stock during the performance period. MetLife determines each performance period's performance factor in the same way it does for the same performance period's Performance Shares.

See "— Equity Awards — Performance Shares" for a discussion of the Performance Shares vesting period and performance factor calculation, which are also used for Performance Units.

Restricted Units

Restricted Units are units that, if they vest, are payable in cash equal to the closing price of a Share on the last day of the restriction period. The majority of Restricted Units normally vest in thirds on or shortly after the first three anniversaries of their grant date. Other Restricted Units normally vest in their entirety on the third or later anniversary of their grant date. Vesting is subject to continued service, except for employees who meet specified age and service criteria and in certain other limited circumstances. Restricted Units are accounted for as liability awards. MetLife, Inc. does not credit Restricted Units with dividend-equivalents for dividends paid on Shares. Accordingly, the estimated fair value of Restricted Units is based upon the closing price of a Share on the date of grant, reduced by the present value of estimated dividends to be paid on that stock during the performance period.

Liability Award Activity

The following table presents a summary of Liability Awards activity:

	Unit Options	Performance Units	Restricted Units
Outstanding at January 1, 2019	546,448	594,599	669,102
Granted	20,750	201,840	361,956
Exercised	(64,437)	—	—
Expired (1)	(1,074)	—	—
Forfeited (2)	—	(53,978)	(80,115)
Paid	—	(212,464)	(327,848)
Outstanding at December 31, 2019	501,687	529,997	623,095
Vested and expected to vest at December 31, 2019	500,904	512,752	605,633

(1) Expired options were exercisable, but unexercised, as of their expiration date.

(2) Forfeited awards were either (a) unvested or unexercisable at the end of the awardholder's employment, where the awardholder did not meet the criteria for post-employment award continuation; or (b) held by awardholders the Company terminated from employment for cause as defined in the terms of the awards.

16. Equity (continued)

Performance Units amounts above represent aggregate awards at target, and do not reflect potential increases or decreases that may result from the performance factor. At December 31, 2019, the performance period for the 2017 - 2019 Performance Unit grants was completed, but the performance factor had not yet been determined. Included in the immediately preceding table are 166,191 outstanding Performance Units to which the 2017 - 2019 performance factor will be applied.

Statutory Equity and Income

The states of domicile of MetLife, Inc.'s U.S. insurance subsidiaries each impose risk-based capital ("RBC") requirements that were developed by the NAIC. American Life does not write business in Delaware or any other U.S. state and, as such, is exempt from RBC requirements by Delaware law. Regulatory compliance is determined by a ratio of a company's total adjusted capital, calculated in the manner prescribed by the NAIC ("TAC") to its authorized control level RBC, calculated in the manner prescribed by the NAIC ("ACL RBC"), based on the statutory-based filed financial statements. Companies below specific trigger levels or ratios are classified by their respective levels, each of which requires specified corrective action. The minimum level of TAC before corrective action commences is twice ACL RBC ("Company Action Level RBC"). While not required by or filed with insurance regulators, the Company also calculates an internally defined combined RBC ratio ("Statement-Based Combined RBC Ratio"), which is determined by dividing the sum of TAC for MetLife, Inc.'s principal U.S. insurance subsidiaries, excluding American Life, by the sum of Company Action Level RBC for such subsidiaries. The Company's Statement-Based Combined RBC Ratio was in excess of 360% at both December 31, 2019 and 2018. In addition, all non-exempted U.S. insurance subsidiaries individually exceeded Company Action Level RBC for all periods presented.

MetLife, Inc.'s foreign insurance operations are regulated by applicable authorities of the jurisdictions in which each entity operates and are subject to minimum capital and solvency requirements in those jurisdictions before corrective action commences. At December 31, 2019 and 2018, the adjusted capital of American Life's insurance subsidiary in Japan, the Company's largest foreign insurance operation, was in excess of four times the 200% solvency margin ratio that would require corrective action. Excluding Japan, the aggregate required capital and surplus of the Company's other foreign insurance operations was $3.8 billion and the aggregate actual regulatory capital and surplus of such operations was $9.9 billion as of the date of the most recent required capital adequacy calculation for each jurisdiction. The Company's foreign insurance operations exceeded the minimum capital and solvency requirements as of the date of the most recent fiscal year-end capital adequacy calculation for each jurisdiction.

MetLife, Inc.'s insurance subsidiaries prepare statutory-basis financial statements in accordance with statutory accounting practices prescribed or permitted by the insurance department of the state of domicile or applicable foreign jurisdiction. The NAIC has adopted the Codification of Statutory Accounting Principles ("Statutory Codification"). Statutory Codification is intended to standardize regulatory accounting and reporting to state insurance departments. However, statutory accounting principles continue to be established by individual state laws and permitted practices. Modifications by the various state insurance departments may impact the effect of Statutory Codification on the statutory capital and surplus of MetLife, Inc.'s U.S. insurance subsidiaries.

Statutory accounting principles differ from GAAP primarily by charging policy acquisition costs to expense as incurred, establishing future policy benefit liabilities using different actuarial assumptions, reporting surplus notes as surplus instead of debt and valuing securities on a different basis.

In addition, certain assets are not admitted under statutory accounting principles and are charged directly to surplus. The most significant assets not admitted by the Company are net deferred income tax assets resulting from temporary differences between statutory accounting principles basis and tax basis not expected to reverse and become recoverable within three years. Further, statutory accounting principles do not give recognition to purchase accounting adjustments. MetLife, Inc.'s U.S. insurance subsidiaries have no material state prescribed accounting practices, except as described below.

New York has adopted certain prescribed accounting practices, primarily consisting of the continuous Commissioners' Annuity Reserve Valuation Method, which impacts deferred annuities, and the New York Special Consideration Letter, which mandates certain assumptions in asset adequacy testing. The collective impact of these prescribed accounting practices decreased the statutory capital and surplus of MLIC by $1.2 billion at both December 31, 2019 and 2018, compared to what capital and surplus would have been had it been measured under NAIC guidance.

16. Equity (continued)

American Life calculates its policyholder reserves on insurance written in each foreign jurisdiction in accordance with the reserve standards required by such jurisdiction. Additionally, American Life's insurance subsidiaries are valued based on each respective subsidiary's underlying local statutory equity, adjusted in a manner consistent with the reporting prescribed for its branch operations. The prescribed practice exempts American Life from calculating and disclosing the impact to its statutory capital and surplus.

The tables below present amounts from MetLife, Inc.'s U.S. insurance subsidiaries, which are derived from the statutory-basis financial statements as filed with the insurance regulators.

Statutory net income (loss) was as follows:

Company	State of Domicile	Years Ended December 31, 2019	2018	2017
		(In millions)		
Metropolitan Life Insurance Company	New York	$ 3,859	$ 3,656	$ 1,982
American Life Insurance Company	Delaware	$ 1,386	$ 2,086	$ 3,077
Metropolitan Property and Casualty Insurance Company	Rhode Island	$ 245	$ 345	$ 197
Metropolitan Tower Life Insurance Company	Nebraska (1)	$ (13)	$ 76	$ 164
Other	Various	$ 12	$ 16	$ 11

(1) In April 2018, Metropolitan Tower Life Insurance Company ("MTL") merged with General American Life Insurance Company ("MTL Merger"). The surviving entity of the merger was MTL, which re-domesticated from Delaware to Nebraska immediately prior to the merger.

Statutory capital and surplus was as follows at:

Company	December 31, 2019	2018
	(In millions)	
Metropolitan Life Insurance Company	$ 10,915	$ 11,098
American Life Insurance Company	$ 4,970	$ 4,921
Metropolitan Property and Casualty Insurance Company	$ 2,159	$ 2,322
Metropolitan Tower Life Insurance Company	$ 1,502	$ 1,549
Other	$ 105	$ 106

The Company's U.S. captive life reinsurance subsidiaries, which reinsure risks including the closed block, level premium term life and ULSG assumed from other MetLife subsidiaries, have no state prescribed accounting practices, except for MetLife Reinsurance Company of Vermont ("MRV").

MRV, with the explicit permission of the Commissioner of Insurance of the State of Vermont, has included, as admitted assets, the value of letters of credit serving as collateral for reinsurance credit taken by various affiliated cedants, in connection with reinsurance agreements entered into between MRV and the various affiliated cedants, which resulted in higher statutory capital and surplus of $2.0 billion and $2.8 billion for the years ended December 31, 2019 and 2018, respectively. MRV's RBC would have triggered a regulatory event without the use of the state prescribed practice.

The combined statutory net income (loss) of MetLife, Inc.'s U.S. captive life reinsurance subsidiaries was ($27) million, ($59) million and $2.1 billion for the years ended December 2019, 2018 and 2017, respectively, and the combined statutory capital and surplus, including the aforementioned prescribed practice, was $695 million and $1.7 billion at December 31, 2019 and 2018, respectively.

16. Equity (continued)

Dividend Restrictions

Insurance Operations

The table below sets forth the dividends permitted to be paid by MetLife, Inc.'s primary insurance subsidiaries without insurance regulatory approval and the actual dividends paid:

	2020	2019	2018
Company	Permitted Without Approval (1)	Paid (2)	Paid (2)
		(In millions)	
Metropolitan Life Insurance Company	$ 3,272	$ 3,065	$ 3,736
American Life Insurance Company	$ 51	$ 1,100	$ 3,200
Metropolitan Property and Casualty Insurance Company	$ 114	$ 430	$ 233
Metropolitan Tower Life Insurance Company	$ 149	$ —	$ 191

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(1) Reflects dividend amounts that may be paid by the end of 2020 without prior regulatory approval.

(2) Reflects all amounts paid, including those where regulatory approval was obtained as required.

Under the New York State Insurance Law, MLIC is permitted, without prior insurance regulatory clearance, to pay stockholder dividends to MetLife, Inc. in any calendar year based on either of two standards. Under one standard, MLIC is permitted, without prior insurance regulatory clearance, to pay dividends out of earned surplus (defined as positive unassigned funds (surplus), excluding 85% of the change in net unrealized capital gains or losses (less capital gains tax), for the immediately preceding calendar year), in an amount up to the greater of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) its statutory net gain from operations for the immediately preceding calendar year (excluding realized capital gains), not to exceed 30% of surplus to policyholders as of the end of the immediately preceding calendar year. In addition, under this standard, MLIC may not, without prior insurance regulatory clearance, pay any dividends in any calendar year immediately following a calendar year for which its net gain from operations, excluding realized capital gains, was negative. Under the second standard, if dividends are paid out of other than earned surplus, MLIC may, without prior insurance regulatory clearance, pay an amount up to the lesser of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) its statutory net gain from operations for the immediately preceding calendar year (excluding realized capital gains). In addition, MLIC will be permitted to pay a dividend to MetLife, Inc. in excess of the amounts allowed under both standards only if it files notice of its intention to declare such a dividend and the amount thereof with the New York Superintendent of Financial Services (the "Superintendent") and the Superintendent either approves the distribution of the dividend or does not disapprove the dividend within 30 days of its filing. Under the New York State Insurance Law, the Superintendent has broad discretion in determining whether the financial condition of a stock life insurance company would support the payment of such dividends to its stockholder.

Under the Delaware Insurance Code, American Life is permitted, without prior insurance regulatory clearance, to pay a stockholder dividend to MetLife, Inc. as long as the amount of the dividend, when aggregated with all other dividends in the preceding 12 months, does not exceed the greater of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) its statutory net gain from operations for the immediately preceding calendar year (excluding realized capital gains), not including pro rata distributions of American Life's own securities. American Life will be permitted to pay a dividend to MetLife, Inc. in excess of the greater of such two amounts only if it files notice of the declaration of such a dividend and the amount thereof with the Delaware Commissioner of Insurance (the "Delaware Commissioner") and the Delaware Commissioner either approves the distribution of the dividend or does not disapprove the distribution within 30 days of its filing. In addition, any dividend that exceeds earned surplus (defined as "unassigned funds (surplus)") as of the immediately preceding calendar year requires insurance regulatory approval. Under the Delaware Insurance Code, the Delaware Commissioner has broad discretion in determining whether the financial condition of a stock life insurance company would support the payment of such dividends to its stockholders.

16. Equity (continued)

Under the Rhode Island Insurance Code, Metropolitan Property and Casualty Insurance Company ("MPC") is permitted, without prior insurance regulatory clearance, to pay a stockholder dividend to MetLife, Inc. as long as the aggregate amount of all such dividends in any 12 month period does not exceed the lesser of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) net income, excluding realized capital gains, for the immediately preceding calendar year, not including pro rata distributions of MPC's own securities. In determining whether a dividend is extraordinary, MPC may include carry forward net income from the previous two calendar years, excluding realized capital gains less dividends paid in the second and immediately preceding calendar years. MPC will be permitted to pay a dividend to MetLife, Inc. in excess of the lesser of such two amounts only if it files notice of its intention to declare such a dividend and the amount thereof with the Rhode Island Commissioner of Insurance (the "Rhode Island Commissioner") and the Rhode Island Commissioner either approves the distribution of the dividend or does not disapprove the distribution within 30 days of its filing. Under the Rhode Island Insurance Code, the Rhode Island Commissioner has broad discretion in determining whether the financial condition of a stock property and casualty insurance company would support the payment of such dividends to its stockholders.

Under the Nebraska Insurance Code, MTL is permitted, without prior insurance regulatory clearance, to pay a stockholder dividend to MetLife, Inc. as long as the amount of the dividend, when aggregated with all other dividends in the preceding 12 months, does not exceed the greater of: (i) 10% of its surplus to policyholders as of the end of the immediately preceding calendar year, or (ii) its statutory net gain from operations for the immediately preceding calendar year (excluding realized capital gains), not including pro rata distributions of MTL's own securities. MTL will be permitted to pay a dividend to MetLife, Inc. in excess of the greater of such two amounts only if it files notice of the declaration of such a dividend and the amount thereof with the Director of the Nebraska Department of Insurance (the "Nebraska Director") and the Nebraska Director either approves the distribution of the dividend or does not disapprove the distribution within 30 days of its filing. In addition, any dividend that exceeds earned surplus (defined as "unassigned funds (surplus)" excluding unrealized capital gains) as of the immediately preceding calendar year requires insurance regulatory approval. Under the Nebraska Insurance Code, the Nebraska Director has broad discretion in determining whether the financial condition of a stock life insurance company would support the payment of such dividends to its stockholders.

MetLife, Inc.

In addition to regulatory restrictions on the payment of dividends by its insurance subsidiaries to MetLife, Inc., the payment of dividends by MetLife, Inc. to its stockholders is also subject to other restrictions. The declaration and payment of dividends are subject to the discretion of MetLife, Inc.'s Board of Directors and will depend on its financial condition, results of operations, cash requirements, future prospects and other factors deemed relevant by the Board of Directors. In addition, the payment of dividends on MetLife, Inc.'s common stock, and MetLife, Inc.'s ability to repurchase its common stock, may be subject to restrictions described below arising under the terms of MetLife, Inc.'s Series A preferred stock and its junior subordinated debentures in situations where MetLife, Inc. may be experiencing financial stress, as described below. For purposes of this discussion, "junior subordinated debentures" are deemed to include MetLife, Inc.'s Fixed-to-Floating Rate Exchangeable Surplus Trust Securities, as discussed in Note 15.

"Dividend Stopper" Provisions in the Preferred Stock and Junior Subordinated Debentures

If MetLife, Inc. has not paid the full dividends on its preferred stock for the latest completed dividend period, MetLife, Inc. may not repurchase or pay dividends on its common stock during a dividend period under so-called "dividend stopper" provisions. Further, MetLife, Inc.'s Series A preferred stock and its junior subordinated debentures contain provisions that would suspend the payment of preferred stock dividends and interest on junior subordinated debentures if MetLife, Inc. fails to meet certain RBC ratio, net income and stockholders' equity tests at specified times, except to the extent of the net proceeds from the issuance of certain securities during specified periods. If Series A preferred stock dividends or interest on junior subordinated debentures are not paid, certain provisions in those instruments (including under "dividend stopper" provisions) may restrict MetLife, Inc. from repurchasing its common or preferred stock or paying dividends on its common or preferred stock and interest on its junior subordinated debentures.

16. Equity (continued)

The junior subordinated debentures further provide that MetLife, Inc. may, at its option and provided that certain conditions are met, defer payment of interest without giving rise to an event of default for periods of up to 10 years. In that case, after five years MetLife, Inc. would be obligated to use commercially reasonable efforts to sell equity securities to raise proceeds to pay the interest. MetLife, Inc. would not be subject to limitations on the number of deferral periods that MetLife, Inc. could begin, so long as all accrued and unpaid interest is paid with respect to prior deferral periods. If MetLife, Inc. were to defer payments of interest, the "dividend stopper" provisions in the junior subordinated debentures would thus prevent MetLife, Inc. from repurchasing or paying dividends on its common stock or other capital stock (including the preferred stock) during the period of deferral, subject to exceptions.

MetLife, Inc. is a party to certain RCCs which limit its ability to eliminate these restrictions through the repayment, redemption or purchase of junior subordinated debentures by requiring MetLife, Inc., with some limitations, to receive cash proceeds during a specified period from the sale of specified replacement securities prior to any repayment, redemption or purchase. See Note 15 for a description of such covenants.

16. Equity (continued)

Accumulated Other Comprehensive Income (Loss)

Information regarding changes in the balances of each component of AOCI attributable to MetLife, Inc. was as follows:

	Unrealized Investment Gains (Losses), Net of Related Offsets (1)	Unrealized Gains (Losses) on Derivatives	Foreign Currency Translation Adjustments	Defined Benefit Plans Adjustment	Total
			(In millions)		
Balance at December 31, 2016	$ 10,785	$ 1,865	$ (5,312)	$ (1,972)	$ 5,366
OCI before reclassifications	5,392	(140)	765	(23)	5,994
Deferred income tax benefit (expense)	(1,732)	47	125	8	(1,552)
AOCI before reclassifications, net of income tax	14,445	1,772	(4,422)	(1,987)	9,808
Amounts reclassified from AOCI	(289)	(1,025)	—	167	(1,147)
Deferred income tax benefit (expense)	87	356	—	(43)	400
Amounts reclassified from AOCI, net of income tax	(202)	(669)	—	124	(747)
Disposal of subsidiary (2)	(2,286)	(305)	51	28	(2,512)
Deferred income tax benefit (expense)	800	107	(19)	(10)	878
Disposal of subsidiary, net of income tax	(1,486)	(198)	32	18	(1,634)
Balance at December 31, 2017	12,757	905	(4,390)	(1,845)	7,427
OCI before reclassifications	(8,735)	157	(679)	143	(9,114)
Deferred income tax benefit (expense)	1,961	(41)	36	(35)	1,921
AOCI before reclassifications, net of income tax	5,983	1,021	(5,033)	(1,737)	234
Amounts reclassified from AOCI	14	517	—	120	651
Deferred income tax benefit (expense)	(3)	(135)	—	(29)	(167)
Amounts reclassified from AOCI, net of income tax	11	382	—	91	484
Cumulative effects of changes in accounting principles	(425)	—	—	—	(425)
Deferred income tax benefit (expense), cumulative effects of changes in accounting principles	1,473	210	36	(382)	1,337
Cumulative effects of changes in accounting principles, net of income tax	1,048	210	36	(382)	912
Sale of subsidiary (2)	—	—	92	—	92
Balance at December 31, 2018	7,042	1,613	(4,905)	(2,028)	1,722
OCI before reclassifications	14,850	328	(43)	(88)	15,047
Deferred income tax benefit (expense)	(3,408)	34	21	14	(3,339)
AOCI before reclassifications, net of income tax	18,484	1,975	(4,927)	(2,102)	13,430
Amounts reclassified from AOCI	(265)	(268)	—	118	(415)
Deferred income tax benefit (expense)	61	(27)	—	(18)	16
Amounts reclassified from AOCI, net of income tax	(204)	(295)	—	100	(399)
Cumulative effects of changes in accounting principles	4	22	—	—	26
Deferred income tax benefit (expense), cumulative effects of changes in accounting principles	(1)	(4)	—	—	(5)
Cumulative effects of changes in accounting principles, net of income tax (3)	3	18	—	—	21
Balance at December 31, 2019	$ 18,283	$ 1,698	$ (4,927)	$ (2,002)	$ 13,052

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(1) See Note 8 for information on offsets to investments related to future policy benefits, DAC, VOBA and DSI, and the policyholder dividend obligation.

(2) See Note 3.

(3) See Note 1 for further information on adoption of new accounting pronouncements.

16. Equity (continued)

Information regarding amounts reclassified out of each component of AOCI was as follows:

AOCI Components	2019	2018	2017	Consolidated Statements of Operations Locations
	Years Ended December 31,			
	Amounts Reclassified from AOCI			
	(In millions)			
Net unrealized investment gains (losses):				
Net unrealized investment gains (losses)	$ 270	$ 6	$ 404	Net investment gains (losses)
Net unrealized investment gains (losses)	(30)	(1)	20	Net investment income
Net unrealized investment gains (losses)	25	(19)	(49)	Net derivative gains (losses)
Net unrealized investment gains (losses)	—	—	(86)	Discontinued operations
Net unrealized investment gains (losses), before income tax	265	(14)	289	
Income tax (expense) benefit	(61)	3	(87)	
Net unrealized investment gains (losses), net of income tax	204	(11)	202	
Unrealized gains (losses) on derivatives - cash flow hedges:				
Interest rate derivatives	23	20	18	Net investment income
Interest rate derivatives	4	—	—	Net investment gains (losses)
Interest rate derivatives	—	21	13	Net derivative gains (losses)
Interest rate derivatives	2	1	1	Other expenses
Interest rate derivatives	—	—	5	Discontinued operations
Foreign currency exchange rate derivatives	(4)	(5)	—	Net investment income
Foreign currency exchange rate derivatives	240	—	—	Net investment gains (losses)
Foreign currency exchange rate derivatives	—	(558)	974	Net derivative gains (losses)
Foreign currency exchange rate derivatives	2	2	2	Other expenses
Foreign currency exchange rate derivatives	—	—	11	Discontinued operations
Credit derivatives	1	1	—	Net investment income
Credit derivatives	—	1	1	Net derivative gains (losses)
Gains (losses) on cash flow hedges, before income tax	268	(517)	1,025	
Income tax (expense) benefit	27	135	(356)	
Gains (losses) on cash flow hedges, net of income tax	295	(382)	669	
Defined benefit plans adjustment: (1)				
Amortization of net actuarial gains (losses)	(145)	(145)	(190)	
Amortization of prior service (costs) credit	27	25	23	
Amortization of defined benefit plan items, before income tax	(118)	(120)	(167)	
Income tax (expense) benefit	18	29	43	
Amortization of defined benefit plan items, net of income tax	(100)	(91)	(124)	
Total reclassifications, net of income tax	$ 399	$ (484)	$ 747	

(1) These AOCI components are included in the computation of net periodic benefit costs. See Note 18.

17. Other Revenues and Other Expenses

Other Revenues

Information on other revenues, which primarily includes fees related to service contracts from customers, was as follows:

	Years Ended December 31,	
	2019	2018
	(In millions)	
Prepaid legal plans	$ 347	$ 296
Fee-based investment management	286	293
Recordkeeping and administrative services (1)	206	221
Administrative services-only contracts	210	205
Other revenue from service contracts from customers	240	241
Total revenues from service contracts from customers	1,289	1,256
Other	553	624
Total other revenues	$ 1,842	$ 1,880

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(1) Related to products and businesses no longer actively marketed by the Company.

Other Expenses

Information on other expenses was as follows:

	Years Ended December 31,		
	2019	2018	2017
	(In millions)		
Employee related costs (1)	$ 3,665	$ 3,664	$ 3,595
Third party staffing costs	1,755	1,703	1,693
General and administrative expenses	901	910	1,129
Pension, postretirement and postemployment benefit costs	233	185	307
Premium taxes, other taxes, and licenses & fees	674	758	842
Commissions and other variable expenses	6,001	5,707	5,387
Capitalization of DAC	(3,358)	(3,254)	(3,002)
Amortization of DAC and VOBA	2,896	2,975	2,681
Amortization of negative VOBA	(33)	(56)	(140)
Interest expense on debt	955	1,122	1,129
Total other expenses	$ 13,689	$ 13,714	$ 13,621

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(1) Includes ($219) million, $0 and ($124) million for the years ended December 31, 2019, 2018 and 2017, respectively, for the net change in cash surrender value of investments in certain life insurance policies, net of premiums paid.

See Note 3 for further information on Separation-related transaction costs.

Capitalization of DAC and Amortization of DAC and VOBA

See Note 5 for additional information on DAC and VOBA including impacts of capitalization and amortization. See also Note 7 for a description of the DAC amortization impact associated with the closed block.

Expenses related to Debt

See Notes 13, 14, and 15 for attribution of interest expense by debt issuance and other expenses related to debt transactions.

17. Other Revenues and Other Expenses (continued)

Restructuring Charges

In December 2019, the Company incurred the remaining restructuring charges related to its unit cost improvement program. During this program period, restructuring charges were included in other expenses and reported in Corporate & Other. Such restructuring charges were as follows:

	Years Ended December 31,		
	2019	2018	2017
	Severance		
	(In millions)		
Balance at January 1,	$ 23	$ 22	$ 35
Restructuring charges	108	63	38
Cash payments	(74)	(62)	(51)
Balance at December 31,	$ 57	$ 23	$ 22
Total severance charges incurred since inception of initiative	$ 244	$ 136	$ 73

In addition to the above severance charges, the Company recognized lease and asset impairment charges of $43 million and $12 million for the years ended December 31, 2019 and 2018, respectively.

18. Employee Benefit Plans

Pension and Other Postretirement Benefit Plans

Certain subsidiaries of MetLife, Inc. sponsor a U.S. qualified and various U.S. and non-U.S. nonqualified defined benefit pension plans covering employees who meet specified eligibility requirements. U.S. pension benefits are provided utilizing either a traditional formula or cash balance formula. The traditional formula provides benefits that are primarily based upon years of credited service and final average earnings. The cash balance formula utilizes hypothetical or notional accounts which credit participants with benefits equal to a percentage of eligible pay, as well as interest credits, determined annually based upon the annual rate of interest on 30-year U.S. Treasury securities, for each account balance. In September 2018, the U.S. qualified and nonqualified defined benefit pension plans were amended, effective January 1, 2023, to provide benefits accruals for all active participants under the cash balance formula and to cease future accruals under the traditional formula. The U.S. nonqualified pension plans provide supplemental benefits in excess of limits applicable to a qualified plan. The non-U.S. pension plans generally provide benefits based upon either years of credited service and earnings preceding retirement or points earned on job grades and other factors in years of service.

These subsidiaries also provide certain postemployment benefits and certain postretirement medical and life insurance benefits for U.S. and non-U.S. retired employees. U.S. employees of these subsidiaries who were hired prior to 2003 (or, in certain cases, rehired during or after 2003) and meet age and service criteria while working for one of the subsidiaries may become eligible for these other postretirement benefits, at various levels, in accordance with the applicable plans. Virtually all retirees, or their beneficiaries, contribute a portion of the total costs of postretirement medical benefits. U.S. employees hired after 2003 are not eligible for any employer subsidy for postretirement medical benefits. In September 2018, the U.S. postretirement medical and life insurance benefit plans were amended, effective January 1, 2023, to discontinue the accrual of the employer subsidy credits for eligible employees.

18. Employee Benefit Plans (continued)

The benefit obligations, funded status and net periodic benefit costs related to these pension and other postretirement benefits were comprised of the following:

	December 31, 2019						December 31, 2018					
	Pension Benefits			Other Postretirement Benefits			Pension Benefits			Other Postretirement Benefits		
	U.S. Plans	Non-U.S. Plans	Total	U.S. Plans	Non-U.S. Plans	Total	U.S. Plans	Non-U.S. Plans	Total	U.S. Plans	Non-U.S. Plans	Total
	(In millions)											
Benefit obligations	$10,824	$ 1,126	$11,950	$ 1,247	$ 42	$ 1,289	$ 9,580	$ 1,011	$10,591	$ 1,288	$ 36	$ 1,324
Estimated fair value of plan assets	9,742	488	10,230	1,441	27	1,468	8,615	333	8,948	1,334	26	1,360
Over (under) funded status	$ (1,082)	$ (638)	$ (1,720)	$ 194	$ (15)	$ 179	$ (965)	$ (678)	$ (1,643)	$ 46	$ (10)	$ 36
Net periodic benefit costs	$ 244	$ 92	$ 336	$ (70)	$ 3	$ (67)	$ 176	$ 83	$ 259	$ (66)	$ 2	$ (64)

18. Employee Benefit Plans (continued)

Obligations and Funded Status

	December 31,			
	2019		2018	
	Pension Benefits (1)	Other Postretirement Benefits	Pension Benefits (1)	Other Postretirement Benefits
	(In millions)			
Change in benefit obligations:				
Benefit obligations at January 1,	$ 10,591	$ 1,324	$ 11,409	$ 1,674
Service costs	214	5	223	6
Interest costs	425	53	391	55
Plan participants' contributions	—	32	—	30
Plan amendments	3	—	(110)	(7)
Net actuarial (gains) losses (2)	1,360	(31)	(713)	(348)
Acquisition, divestitures, settlements and curtailments	(5)	(3)	(6)	13
Benefits paid	(647)	(93)	(623)	(97)
Effect of foreign currency translation	9	2	20	(2)
Benefit obligations at December 31,	11,950	1,289	10,591	1,324
Change in plan assets:				
Estimated fair value of plan assets at January 1,	8,948	1,360	9,688	1,434
Actual return on plan assets	1,619	173	(423)	(27)
Acquisition, divestitures and settlements	(5)	(3)	(5)	16
Plan participants' contributions	—	32	—	32
Employer contributions	311	(2)	306	4
Benefits paid	(647)	(93)	(623)	(97)
Effect of foreign currency translation	4	1	5	(2)
Estimated fair value of plan assets at December 31,	10,230	1,468	8,948	1,360
Over (under) funded status at December 31,	$ (1,720)	$ 179	$ (1,643)	$ 36
Amounts recognized on the consolidated balance sheets:				
Other assets	$ 147	$ 617	$ 135	$ 373
Other liabilities	(1,867)	(438)	(1,778)	(337)
Net amount recognized	$ (1,720)	$ 179	$ (1,643)	$ 36
AOCI:				
Net actuarial (gains) losses	$ 3,009	$ (359)	$ 2,979	$ (269)
Prior service costs (credit)	(100)	(2)	(118)	(14)
AOCI, before income tax	$ 2,909	$ (361)	$ 2,861	$ (283)
Accumulated benefit obligation	$ 11,616	N/A	$ 10,301	N/A

(1) Includes nonqualified unfunded plans, for which the aggregate PBO was $1.2 billion and $1.1 billion at December 31, 2019 and 2018, respectively.

(2) Significant sources of actuarial (gains) losses for pension and other postretirement benefits during 2019 include the impact of changes to the financial assumptions of $1.2 billion and $66 million, respectively, and plan experience of $103 million and ($97) million, respectively. Significant sources of actuarial (gains) losses for pension and other postretirement benefits during 2018 include the impact of changes to the financial assumptions of ($796) million and ($192) million, respectively, demographic assumptions of $23 million and ($48) million, respectively, and plan experience of $60 million and ($108) million, respectively.

18. Employee Benefit Plans (continued)

Information for pension plans and other postretirement benefit plans with PBOs and/or accumulated benefit obligations ("ABO") or APBO in excess of plan assets was as follows at:

	December 31,					
	2019	2018	2019	2018	2019	2018
	PBO Exceeds Estimated Fair Value of Plan Assets		ABO Exceeds Estimated Fair Value of Plan Assets		APBO Exceeds Estimated Fair Value of Plan Assets	
	(In millions)					
Projected benefit obligations	$ 2,287	$ 2,021	$ 2,227	$ 1,999	N/A	N/A
Accumulated benefit obligations	$ 2,162	$ 1,921	$ 2,113	$ 1,906	N/A	N/A
Accumulated postretirement benefit obligations	N/A	N/A	N/A	N/A	$ 812	$ 724
Estimated fair value of plan assets	$ 487	$ 301	$ 430	$ 280	$ 375	$ 388

Net Periodic Benefit Costs

The components of net periodic benefit costs and other changes in plan assets and benefit obligations recognized in OCI were as follows:

	Years Ended December 31,					
	2019		2018		2017	
	Pension Benefits	Other Postretirement Benefits	Pension Benefits	Other Postretirement Benefits	Pension Benefits	Other Postretirement Benefits
	(In millions)					
Net periodic benefit costs:						
Service costs	$ 214	$ 5	$ 223	$ 6	$ 238	$ 6
Interest costs	425	53	391	55	429	76
Settlement and curtailment costs	—	2	(1)	—	4	2
Expected return on plan assets	(489)	(67)	(533)	(71)	(516)	(72)
Amortization of net actuarial (gains) losses	201	(48)	182	(34)	195	—
Amortization of prior service costs (credit)	(15)	(12)	(3)	(20)	(1)	(22)
Total net periodic benefit costs (credit)	336	(67)	259	(64)	349	(10)
Other changes in plan assets and benefit obligations recognized in OCI:						
Net actuarial (gains) losses	231	(138)	244	(248)	149	(146)
Prior service costs (credit)	3	—	(110)	(7)	(1)	—
Amortization of net actuarial (gains) losses	(201)	48	(182)	34	(195)	—
Amortization of prior service (costs) credit	15	12	3	20	1	22
Disposal of subsidiary	—	—	—	—	(30)	2
Total recognized in OCI	48	(78)	(45)	(201)	(76)	(122)
Total recognized in net periodic benefit costs and OCI	$ 384	$ (145)	$ 214	$ (265)	$ 273	$ (132)

18. Employee Benefit Plans (continued)

Assumptions

Assumptions used in determining benefit obligations for the U.S. plans were as follows:

	Pension Benefits	Other Postretirement Benefits
December 31, 2019		
Weighted average discount rate	3.30%	3.45%
Weighted average interest crediting rate	3.99%	N/A
Rate of compensation increase	2.25% - 8.50%	N/A
December 31, 2018		
Weighted average discount rate	4.35%	4.35%
Weighted average interest crediting rate	4.09%	N/A
Rate of compensation increase	2.25% - 8.50%	N/A

Assumptions used in determining net periodic benefit costs for the U.S. plans were as follows:

	Pension Benefits	Other Postretirement Benefits
Year Ended December 31, 2019		
Weighted average discount rate	4.35%	4.35%
Weighted average interest crediting rate	4.01%	N/A
Weighted average expected rate of return on plan assets	5.75%	5.04%
Rate of compensation increase	2.25% - 8.50%	N/A
Year Ended December 31, 2018		
Weighted average discount rate	3.65%	3.70%
Weighted average interest crediting rate	4.13%	N/A
Weighted average expected rate of return on plan assets	5.75%	5.11%
Rate of compensation increase	2.25% - 8.50%	N/A
Year Ended December 31, 2017		
Weighted average discount rate	4.30%	4.45%
Weighted average interest crediting rate	5.46%	N/A
Weighted average expected rate of return on plan assets	6.00%	5.36%
Rate of compensation increase	2.25% - 8.50%	N/A

The weighted average discount rate for the U.S. plans is determined annually based on the yield, measured on a yield to worst basis, of a hypothetical portfolio constructed of high quality debt instruments available on the measurement date, which would provide the necessary future cash flows to pay the aggregate PBO when due.

The weighted average expected rate of return on plan assets for the U.S. plans is based on anticipated performance of the various asset sectors in which the plans invest, weighted by target allocation percentages. Anticipated future performance is based on long-term historical returns of the plan assets by sector, adjusted for the long-term expectations on the performance of the markets. While the precise expected rate of return derived using this approach will fluctuate from year to year, the policy is to hold this long-term assumption constant as long as it remains within reasonable tolerance from the derived rate.

The weighted average expected rate of return on plan assets for use in that plan’s valuation in 2020 is currently anticipated to be 5.50% for U.S. pension benefits and 4.31% for U.S. other postretirement benefits.

The weighted average interest crediting rate is determined annually based on the plan selected rate, long-term financial forecasts of that rate and the demographics of the plan participants.

18. Employee Benefit Plans (continued)

The assumed healthcare costs trend rates used in measuring the APBO and net periodic benefit costs were as follows:

	December 31,			
	2019		2018	
	Before Age 65	Age 65 and older	Before Age 65	Age 65 and older
Following year	4.9%	(1.0%)	5.4%	2.8%
Ultimate rate to which cost increase is assumed to decline	3.8%	3.8%	3.9%	4.2%
Year in which the ultimate trend rate is reached	2074	2074	2080	2097

Plan Assets

Certain U.S. subsidiaries provide employees with benefits under various Employee Retirement Income Security Act of 1974 ("ERISA") benefit plans. These include qualified pension plans, postretirement medical plans and certain retiree life insurance coverage. The assets of these U.S. subsidiaries' qualified pension plans are held in an insurance group annuity contract, and the vast majority of the assets of the postretirement medical plan are held in a trust which largely utilizes insurance contracts to hold the assets. All of these contracts are issued by the Company's insurance affiliates, and the assets under the contracts are held in insurance separate accounts that have been established by the Company. The underlying assets of the separate accounts are principally comprised of cash and cash equivalents, short-term investments, fixed maturity securities AFS, equity securities, derivatives, real estate and private equity investments. The assets backing the retiree life coverage also utilize insurance contracts issued by the Company's insurance affiliate and are held in a general account Life Insurance Funding Agreement.

The insurance contract provider engages investment management firms ("Managers") to serve as sub-advisors for the separate accounts based on the specific investment needs and requests identified by the plan fiduciary. These Managers have portfolio management discretion over the purchasing and selling of securities and other investment assets pursuant to the respective investment management agreements and guidelines established for each insurance separate account. The assets of the qualified pension plans and postretirement medical plans (the "Invested Plans") are well diversified across multiple asset categories and across a number of different Managers, with the intent of minimizing risk concentrations within any given asset category or with any of the given Managers.

The Invested Plans, other than those held in participant directed investment accounts, are managed in accordance with investment policies consistent with the longer-term nature of related benefit obligations and within prudent risk parameters. Specifically, investment policies are oriented toward (i) maximizing the Invested Plan's funded status; (ii) minimizing the volatility of the Invested Plan's funded status; (iii) generating asset returns that exceed liability increases; and (iv) targeting rates of return in excess of a custom benchmark and industry standards over appropriate reference time periods. These goals are expected to be met through identifying appropriate and diversified asset classes and allocations, ensuring adequate liquidity to pay benefits and expenses when due and controlling the costs of administering and managing the Invested Plan's investments. Independent investment consultants are periodically used to evaluate the investment risk of the Invested Plan's assets relative to liabilities, analyze the economic and portfolio impact of various asset allocations and management strategies and recommend asset allocations.

Derivative contracts may be used to reduce investment risk, to manage duration and to replicate the risk/return profile of an asset or asset class. Derivatives may not be used to leverage a portfolio in any manner, such as to magnify exposure to an asset, asset class, interest rates or any other financial variable. Derivatives are also prohibited for use in creating exposures to securities, currencies, indices or any other financial variable that is otherwise restricted.

18. Employee Benefit Plans (continued)

The table below summarizes the actual weighted average allocation of the estimated fair value of total plan assets by asset class at December 31 for the years indicated and the approved target allocation by major asset class at December 31, 2019 for the Invested Plans:

	December 31,					
	2019				2018	
	U.S. Pension Benefits		U.S. Other Postretirement Benefits (1)		U.S. Pension Benefits	U.S. Other Postretirement Benefits (1)
	Target	Actual Allocation	Target	Actual Allocation	Actual Allocation	Actual Allocation
Asset Class						
Fixed maturity securities AFS	82%	81%	95%	95%	82%	82%
Equity securities (2)	15%	12%	5%	5%	10%	18%
Alternative securities (3)	3%	7%	—%	—%	8%	—%
Total assets		100%		100%	100%	100%

(1) U.S. other postretirement benefits do not reflect postretirement life's plan assets invested in fixed maturity securities AFS.

(2) Equity securities percentage includes derivative assets.

(3) Alternative securities primarily include private equity and real estate funds.

Estimated Fair Value

The pension and other postretirement benefit plan assets are categorized into a three-level fair value hierarchy, as described in Note 10, based upon the significant input with the lowest level in its valuation. The Level 2 asset category includes certain separate accounts that are primarily invested in liquid and readily marketable securities. The estimated fair value of such separate accounts is based upon reported NAV provided by fund managers and this value represents the amount at which transfers into and out of the respective separate account are effected. These separate accounts provide reasonable levels of price transparency and can be corroborated through observable market data. Directly held investments are primarily invested in U.S. and foreign government and corporate securities. The Level 3 asset category includes separate accounts that are invested in assets that provide little or no price transparency due to the infrequency with which the underlying assets trade and generally require additional time to liquidate in an orderly manner. Accordingly, the values for separate accounts invested in these alternative asset classes are based on inputs that cannot be readily derived from or corroborated by observable market data.

18. Employee Benefit Plans (continued)

The pension and other postretirement plan assets measured at estimated fair value on a recurring basis and their corresponding placement in the fair value hierarchy are summarized as follows:

	December 31, 2019							
	Pension Benefits				Other Postretirement Benefits			
	Fair Value Hierarchy				Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total Estimated Fair Value	Level 1	Level 2	Level 3	Total Estimated Fair Value
	(In millions)							
Assets								
Fixed maturity securities AFS:								
Corporate	$ —	$ 3,750	$ —	$ 3,750	$ —	$ 278	$ —	$ 278
U.S. government bonds	1,599	457	—	2,056	259	—	—	259
Foreign bonds	—	996	—	996	—	63	—	63
Federal agencies	—	106	—	106	—	9	—	9
Municipals	—	280	—	280	—	20	—	20
Short-term investments	—	192	—	192	24	383	—	407
Other (1)	328	620	—	948	151	219	3	373
Total fixed maturity securities AFS	1,927	6,401	—	8,328	434	972	3	1,409
Equity securities	962	215	—	1,177	59	—	—	59
Other investments	23	3	686	712	—	—	—	—
Derivative assets	10	3	—	13	—	—	—	—
Total assets	$ 2,922	$ 6,622	$ 686	$ 10,230	$ 493	$ 972	$ 3	$ 1,468

	December 31, 2018							
	Pension Benefits				Other Postretirement Benefits			
	Fair Value Hierarchy				Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total Estimated Fair Value	Level 1	Level 2	Level 3	Total Estimated Fair Value
	(In millions)							
Assets								
Fixed maturity securities AFS:								
Corporate	$ —	$ 3,350	$ 1	$ 3,351	$ —	$ 313	$ —	$ 313
U.S. government bonds	1,314	471	—	1,785	268	—	—	268
Foreign bonds	—	837	—	837	—	90	—	90
Federal agencies	—	88	—	88	—	16	—	16
Municipals	—	240	—	240	—	29	—	29
Short-term investments	1	198	—	199	1	397	—	398
Other (1)	210	590	1	801	3	69	—	72
Total fixed maturity securities AFS	1,525	5,774	2	7,301	272	914	—	1,186
Equity securities	706	195	—	901	155	18	—	173
Other investments	20	—	688	708	—	—	—	—
Derivative assets	33	4	1	38	1	—	—	1
Total assets	$ 2,284	$ 5,973	$ 691	$ 8,948	$ 428	$ 932	$ —	$ 1,360

18. Employee Benefit Plans (continued)

(1) Other primarily includes money market securities, mortgage-backed securities, collateralized mortgage obligations and ABS.

A rollforward of all pension and other postretirement benefit plan assets measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs was as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)				
	Fixed Maturity Securities AFS:				
	Corporate	Other (1)	Equity Securities	Other Investments	Derivative Assets
			(In millions)		
Balance, January 1, 2018	$ 1	$ 10	$ 3	$ 622	$ —
Realized gains (losses)	—	—	—	—	—
Unrealized gains (losses)	—	—	—	23	—
Purchases, sales, issuances and settlements, net	—	(3)	—	43	—
Transfers into and/or out of Level 3	—	(6)	(3)	—	1
Balance, December 31, 2018	$ 1	$ 1	$ —	$ 688	$ 1
Realized gains (losses)	—	—	—	—	—
Unrealized gains (losses)	—	—	—	(1)	(1)
Purchases, sales, issuances and settlements, net	(1)	2	—	(1)	—
Transfers into and/or out of Level 3	—	—	—	—	—
Balance, December 31, 2019	$ —	$ 3	$ —	$ 686	$ —

(1) Other includes ABS and collateralized mortgage obligations.

For the year ended December 31, 2018, there were no other postretirement benefit plan assets measured at estimated fair value on a recurring basis using significant unobservable (Level 3) inputs.

Expected Future Contributions and Benefit Payments

It is the subsidiaries' practice to make contributions to the U.S. qualified pension plan to comply with minimum funding requirements of ERISA. In accordance with such practice, no contributions are expected to be required for 2020. The subsidiaries expect to make discretionary contributions to the qualified pension plan of $125 million in 2020. For information on employer contributions, see "— Obligations and Funded Status."

Benefit payments due under the U.S. nonqualified pension plans are primarily funded from the subsidiaries' general assets as they become due under the provisions of the plans, and therefore benefit payments equal employer contributions. The U.S. subsidiaries expect to make contributions of $70 million to fund the benefit payments in 2020.

Postretirement benefits are either: (i) not vested under law; (ii) a non-funded obligation of the subsidiaries; or (iii) both. Current regulations do not require funding for these benefits. The subsidiaries use their general assets, net of participant's contributions, to pay postretirement medical claims as they come due. As permitted under the terms of the governing trust document, the subsidiaries may be reimbursed from plan assets for postretirement medical claims paid from their general assets. The U.S. subsidiaries expect to make contributions of $40 million towards benefit obligations in 2020 to pay postretirement medical claims.

18. Employee Benefit Plans (continued)

Gross benefit payments for the next 10 years, which reflect expected future service where appropriate, are expected to be as follows:

	Pension Benefits	Other Postretirement Benefits
	(In millions)	
2020	$ 649	$ 78
2021	$ 658	$ 74
2022	$ 670	$ 73
2023	$ 688	$ 72
2024	$ 711	$ 74
2025-2029	$ 3,690	$ 361

Defined Contribution Plans

Certain subsidiaries sponsor defined contribution plans under which a portion of employee contributions are matched. These subsidiaries contributed $96 million, $63 million and $72 million for the years ended December 31, 2019, 2018 and 2017, respectively.

19. Income Tax

The provision for income tax from continuing operations was as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Current:			
U.S. federal	$ (189)	$ (207)	$ (246)
U.S. state and local	4	11	5
Non-U.S.	850	932	891
Subtotal	665	736	650
Deferred:			
U.S. federal	(235)	342	(2,373)
Non-U.S.	456	101	253
Subtotal	221	443	(2,120)
Provision for income tax expense (benefit)	$ 886	$ 1,179	$ (1,470)

The Company’s income (loss) from continuing operations before income tax expense (benefit) was as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Income (loss) from continuing operations:			
U.S.	$ 2,094	$ (803)	$ 684
Non-U.S.	4,701	7,110	2,852
Total	$ 6,795	$ 6,307	$ 3,536

19. Income Tax (continued)

The reconciliation of the income tax provision at the U.S. statutory rate (21% in 2019 and 2018; 35% in 2017) to the provision for income tax as reported for continuing operations was as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Tax provision at U.S. statutory rate	$ 1,427	$ 1,325	$ 1,238
Tax effect of:			
Dividend received deduction	(37)	(35)	(67)
Tax-exempt income	(64)	(29)	(97)
Prior year tax (1)	(179)	(197)	(27)
Low income housing tax credits	(254)	(284)	(278)
Other tax credits	(52)	(79)	(102)
Foreign tax rate differential (2), (3), (4)	395	335	(95)
Change in valuation allowance	(22)	(2)	(8)
Separation tax benefits	—	—	(540)
U.S. Tax Reform impact (5), (6), (7)	(326)	78	(1,519)
Other, net (8)	(2)	67	25
Provision for income tax expense (benefit)	$ 886	$ 1,179	$ (1,470)

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(1) As discussed further below, prior year tax includes a non-cash benefit related to an uncertain tax position of $158 million and $168 million for the years ended December 31, 2019 and 2018, respectively.

(2) For the year ended December 31, 2019, foreign tax rate differential includes tax charges of $61 million from the definitive agreement to sell MetLife Hong Kong and $12 million related to the U.S. tax on Global Intangible Low-Taxed Income (“GILTI”), of which $35 million is a current year charge offset by a $23 million tax benefit revising the 2018 estimate.

(3) For the year ended December 31, 2018, foreign tax rate differential includes tax charges of $45 million related to GILTI, $17 million related to a tax adjustment in Chile and $13 million from changes in the valuation of the peso in Argentina.

(4) For the year ended December 31, 2017, foreign tax rate differential includes a net tax charge of $180 million as a result of repatriation. Included in the net tax charge of $180 million is a $444 million tax charge related to the repatriation of approximately $3.0 billion of pre-2017 earnings following the post-Separation review of the Company’s capital needs. This charge was partially offset by a $264 million tax benefit associated with dividends from other non-U.S. operations. This charge was recorded prior to U.S. Tax Reform.

(5) For the year ended December 31, 2019, U.S. Tax Reform impact includes a $317 million tax benefit related to the deemed repatriation transition tax and $9 million related to the effect of sequestration on the alternative minimum tax credit.

(6) For the year ended December 31, 2018, U.S. Tax Reform impact includes a $468 million tax charge related to the deemed repatriation transition tax, offset by a $390 million tax benefit related to the adjustment of deferred taxes due to the U.S. tax rate change. This excludes $12 million of tax provision at the U.S. statutory rate for a total tax reform charge of $66 million.

(7) For the year ended December 31, 2017, U.S. Tax Reform impact of ($1.5) billion excludes ($101) million of tax provision at the U.S. statutory rate for a total tax reform benefit of ($1.6) billion.

(8) For the year ended December 31, 2018, other includes tax charges of $69 million related to the non-deductible loss incurred on the mark-to-market and exchange of FVO Brighthouse Common Stock and $18 million related to a non-deductible Patient Protection and Affordable Care Act excise tax, offset by a tax benefit of $36 million related to a non-cash transfer of assets from a wholly-owned U.K. subsidiary to its U.S. parent.

19. Income Tax (continued)

On December 22, 2017, President Trump signed into law U.S. Tax Reform. U.S. Tax Reform includes numerous changes in tax law, including a permanent reduction in the U.S. federal corporate income tax rate from 35% to 21%, which took effect for taxable years beginning on or after January 1, 2018. U.S. Tax Reform moves the United States from a worldwide tax system to a participation exemption system by providing corporations a 100% dividends received deduction for dividends distributed by a controlled foreign corporation. To transition to that new system, U.S. Tax Reform imposed a one-time deemed repatriation tax on unremitted earnings and profits at a rate of 8.0% for illiquid assets and 15.5% for cash and cash equivalents.

The Company recorded estimates of the impacts of U.S. Tax Reform in the period of enactment, the fourth quarter of 2017. In 2018, these estimates were updated in accordance with SAB 118. However, the impact of certain provisions of U.S. Tax Reform remains uncertain. For instance, many regulations under the new law have not been finalized or have only recently been finalized, including certain rules on international taxation. As a result, the Company continued to report additional revisions resulting from U.S. Tax Reform in 2019.

The incremental financial statement impact related to U.S. Tax Reform was as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Income (loss) from continuing operations before provision for income tax	$ —	$ (58)	$ (289)
Provision for income tax expense (benefit):			
Deemed repatriation	(317)	468	170
Deferred tax revaluation	(9)	(402)	(1,790)
Total provision for income tax expense (benefit)	(326)	66	(1,620)
Income (loss) from continuing operations, net of income tax	326	(124)	1,331
Income tax (expense) benefit related to items of other comprehensive income (loss)	—	—	144
Increase to net equity from U.S. Tax Reform	$ 326	$ (124)	$ 1,475

In accordance with SAB 118 issued by the SEC in December 2017, the Company recorded provisional amounts for certain items for which the income tax accounting was not complete. For these items, the Company recorded a reasonable estimate of the tax effects of U.S. Tax Reform. The estimates were reported as provisional amounts during the measurement period, which did not exceed one year from the date of enactment of U.S. Tax Reform. In 2018, the Company reflected adjustments to its provisional amounts upon obtaining, preparing, or analyzing additional information about facts and circumstances that existed as of the enactment date that, if known, would have affected the income tax effects initially reported as provisional amounts. While the SAB 118 provisional measurement period ended December 31, 2018, the Company continued to revise certain U.S. Tax Reform amounts in 2019.

As of December 31, 2017, the following items were considered provisional estimates due to complexities and ambiguities in U.S. Tax Reform which resulted in incomplete accounting for the tax effects of these provisions. Further guidance, either legislative or interpretive, and analysis were completed and updates were made to complete the accounting for these items during the measurement period as of December 31, 2018 and subsequent to the measurement period as of December 31, 2019:

- Deemed Repatriation Transition Tax - The Company recorded a $170 million charge for this item for the year ended December 31, 2017. This charge was in addition to the $180 million charge recorded in the third quarter of 2017 resulting from the post-Separation review of the Company's capital needs. The total transition tax liability recorded for the year ended December 31, 2017 was $350 million. In 2018, the IRS issued proposed regulations related to the transition tax. As a result, for the year ended December 31, 2018, the Company recorded a $468 million charge. In 2019, as a result of executing a binding agreement with the IRS, the Company recorded a tax benefit of $317 million to settle this matter. This agreement resolved uncertainty regarding the taxation of certain dividends from certain foreign subsidiaries paid prior to U.S. Tax Reform.

19. Income Tax (continued)

- GILTI - U.S. Tax Reform imposes a minimum tax on GILTI, which is generally the excess income of foreign subsidiaries over a 10% rate of routine return on tangible business assets. For the year ended December 31, 2017, the Company did not record a tax charge for this item. In 2018, the Company established an accounting policy in which it treats taxes due on GILTI as a current-period expense when incurred. Accordingly, the Company recorded tax charges of $12 million and $45 million related to this income for the periods ended December 31, 2019 and 2018, respectively.
- Compensation and Fringe Benefits - U.S. Tax Reform limits certain employer deductions for fringe benefit and related expenses and also repeals the exception allowing the deduction of certain performance-based compensation paid to certain senior executives. The Company recorded an $8 million tax charge, included within the deferred tax revaluation as of December 31, 2017. The Company determined that no additional adjustment was required for the years ended December 31, 2019 and 2018.
- Alternative Minimum Tax Credits - U.S. Tax Reform eliminates the corporate alternative minimum tax and allows for minimum tax credit carryforwards to be used to offset future regular tax or to be refunded 50% each tax year beginning in 2018, with any remaining balance fully refunded in 2021. However, pursuant to the requirements of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, refund payments issued for corporations claiming refundable prior year alternative minimum tax credits are subject to a sequestration rate of 6.2%. The application of this fee to refunds in future years is subject to further guidance. Additionally, the sequestration reduction rate in effect at the time is subject to uncertainty. For the year ended December 31, 2017, the Company recorded a $9 million tax charge, included within the deferred tax revaluation. For the year ended December 31, 2018, the Company determined that no additional adjustment was required. In early 2019, the IRS issued guidance indicating that for years beginning after December 31, 2017, refund payments and credit elect and refund offset transactions due to refundable alternative minimum tax credits will not be subject to the sequestration fee. Accordingly, to reflect this guidance the Company recorded a $9 million tax benefit in 2019.
- Tax Credit Partnerships - The reduction in the federal corporate income tax rate due to U.S. Tax Reform required adjustments for multiple investment portfolios, including tax credit partnerships and tax-advantaged leveraged leases. Certain tax credit partnership investments derive returns in part from income tax credits. The Company recognizes changes in tax attributes at the partnership level when reported by the investee in its financial information. The Company did not receive the necessary investee financial information to determine the impact of U.S. Tax Reform on the tax attributes of its tax credit partnership investments until the third quarter of 2018. Accordingly, prior to the third quarter of 2018, the Company applied prior law to these equity method investments in accordance with SAB 118. For the year ended December 31, 2018, after receiving additional investee information, a reduction in tax credit partnerships' equity method income of $46 million, net of income tax, was included in net investment income. The tax-advantaged leveraged lease portfolio is valued on an after-tax yield basis. In 2018, the Company received third party data that was used to complete a comprehensive review of its portfolio to determine the full and complete impact of U.S. Tax Reform on these investments. As a result of this review, a tax benefit of $125 million was recorded for the year ended December 31, 2018. No additional adjustment was required for the year ended December 31, 2019.

19. Income Tax (continued)

U.S. Tax Reform required the Company to recognize a transition tax on all previously unremitted non-U.S. earnings at December 31, 2017. However, the Company has not provided for U.S. deferred taxes on the remaining excess of book bases over tax bases of certain investments in non-U.S. subsidiaries that are essentially permanent in duration. The amount of deferred tax liability related to the Company's remaining basis difference in these non-U.S. subsidiaries is $193 million at December 31, 2019.

Deferred income tax represents the tax effect of the differences between the book and tax bases of assets and liabilities. Net deferred income tax assets and liabilities consisted of the following at:

	December 31,	
	2019	2018
	(In millions)	
Deferred income tax assets:		
Policyholder liabilities and receivables	$ 3,635	$ 3,558
Net operating loss carryforwards (1)	240	237
Employee benefits	692	705
Capital loss carryforwards	10	—
Tax credit carryforwards (2)	1,296	1,113
Litigation-related and government mandated	151	161
Other	127	365
Total gross deferred income tax assets	6,151	6,139
Less: Valuation allowance (1)	294	302
Total net deferred income tax assets	5,857	5,837
Deferred income tax liabilities:		
Investments, including derivatives	4,170	3,854
Intangibles	1,181	1,256
Net unrealized investment gains	6,226	2,898
DAC	3,312	3,243
Total deferred income tax liabilities	14,889	11,251
Net deferred income tax asset (liability) (3)	$ (9,032)	$ (5,414)

(1) The Company has recorded a deferred tax asset of $240 million related to U.S. state and non-U.S. net operating loss carryforwards and an offsetting valuation allowance for the year ended December 31, 2019. Certain net operating loss carryforwards will expire between 2020 and 2039, whereas others have an unlimited carryforward period. The valuation allowance reflects management's assessment, based on available information, that it is more likely than not that the deferred income tax asset for certain U.S. state and non-U.S. net operating loss carryforwards will not be realized. The tax benefit will be recognized when management believes that it is more likely than not that these deferred income tax assets are realizable.

(2) Tax credit carryforwards for the year ended December 31, 2019 primarily reflect general business credits expiring between 2036 and 2039 and are reduced by $113 million related to unrecognized tax benefits.

(3) On the consolidated balance sheet at December 31, 2019, $9,097 million is reported in Deferred income tax liability for jurisdictions in a net deferred income tax liability position and $65 million of a deferred income tax asset is reported in Other assets for jurisdictions in a net deferred income tax asset position.

Certain deferred income tax amounts at December 31, 2018 have been reclassified to conform to the 2019 presentation. The reclassification did not result in a change to the prior year net deferred income tax asset (liability) balance. The significant impacts related to deferred income tax assets were a $671 million increase to Policyholder liabilities and receivables and a

19. Income Tax (continued)

$173 million increase to Other. The significant impacts related to deferred income tax liabilities were a $1.4 billion increase to Investments, including derivatives, and a $495 million decrease to Other. Additionally, the deferred income tax asset for Net operating loss carryforwards and offsetting Valuation allowance both increased by $133 million. The reclassifications resulted from a comprehensive review in 2019 of the tax effects between the book and tax bases of assets and liabilities, primarily with respect to the Company's U.S. businesses.

The Company files income tax returns with the U.S. federal government and various U.S. state and local jurisdictions, as well as non-U.S. jurisdictions. The Company is under continuous examination by the IRS and other tax authorities in jurisdictions in which the Company has significant business operations. The income tax years under examination vary by jurisdiction and subsidiary. The Company is no longer subject to U.S. federal, state, or local income tax examinations for years prior to 2007, except for refund claims filed in 2017 with the IRS for 2000 through 2002 to recover tax and interest predominantly related to the disallowance of certain foreign tax credits for which the Company received a statutory notice of deficiency in 2015 and paid the tax thereon. The disallowed foreign tax credits relate to certain non-U.S. investments held by MLIC in support of its life insurance business through a United Kingdom investment subsidiary that was structured as a joint venture until early 2009.

For tax years 2000 through 2002 and tax years 2007 through 2009, the Company entered into binding agreements with the IRS in 2019 under which all remaining issues regarding the foreign tax credit matter noted above were resolved. Accordingly, in 2019, the Company recorded a non-cash benefit to net income of $226 million, net of tax, comprised of a $158 million tax benefit recorded in provision for income tax expense (benefit) and a $86 million interest benefit ($68 million, net of tax) included in other expenses. For tax years 2003 through 2006, the Company entered into binding agreements with the IRS in 2018 under which all remaining issues, including the foreign tax credit matter noted above, were resolved. Accordingly, in 2018, the Company recorded a non-cash benefit to net income of $349 million, net of tax, comprised of a $168 million tax benefit recorded in provision for income tax expense (benefit) and a $229 million interest benefit ($181 million, net of tax) included in other expenses. For tax years 2007 through 2009 (which are the subject of the current IRS examination), the Company has established adequate reserves for tax liabilities. In material non-U.S. jurisdictions, the Company is no longer subject to income tax examinations for years prior to 2013.

The Company's overall liability for unrecognized tax benefits may increase or decrease in the next 12 months. For example, U.S. federal tax legislation and regulation could impact unrecognized tax benefits. A reasonable estimate of the increase or decrease cannot be made at this time. However, the Company continues to believe that the ultimate resolution of the pending issues will not result in a material change to its consolidated financial statements, although the resolution of income tax matters could impact the Company's effective tax rate for a particular future period.

A reconciliation of the beginning and ending amount of unrecognized tax benefits was as follows:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Balance at January 1,	$ 1,111	$ 1,102	$ 1,146
Additions for tax positions of prior years (1)	6	269	70
Reductions for tax positions of prior years (2)	(493)	(195)	(101)
Additions for tax positions of current year (1)	13	226	33
Reductions for tax positions of current year	—	(3)	(3)
Settlements with tax authorities (3)	(381)	(288)	(43)
Balance at December 31,	$ 256	$ 1,111	$ 1,102
Unrecognized tax benefits that, if recognized, would impact the effective rate	$ 194	$ 1,046	$ 1,073

19. Income Tax (continued)

(1) The increase in 2018 is primarily related to the deemed repatriation transition tax and related IRS regulations.

(2) The decreases are primarily related to non-cash benefits from tax audit settlements.

(3) The decreases in 2019 and 2018 are primarily related to the tax audit settlement, of which $377 million and $284 million, respectively, was reclassified to the current income tax payable account.

The Company classifies interest accrued related to unrecognized tax benefits in interest expense, included within other expenses.

Interest was as follows:

	Years Ended December 31,		
	2019	2018	2017
	(In millions)		
Interest expense (benefit) recognized on the consolidated statements of operations (1)	$ (179)	$ (441)	$ 37

	December 31,	
	2019	2018
	(In millions)	
Interest included in other liabilities on the consolidated balance sheets	$ 39	$ 218

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(1) The decreases in 2019 and 2018 are primarily related to the tax audit settlement, of which $60 million and $168 million, respectively, was recorded in other expenses and $119 million and $273 million, respectively, was reclassified to the current income tax payable account.

20. Earnings Per Common Share

The following table presents the weighted average shares, basic earnings per common share and diluted earnings per common share:

	Years Ended December 31,		
	2019	2018	2017
	(In millions, except per share data)		
Weighted Average Shares:			
Weighted average common stock outstanding - basic	937.6	1,005.9	1,069.7
Incremental common shares from assumed exercise or issuance of stock-based awards	6.8	8.0	8.8
Weighted average common stock outstanding - diluted	944.4	1,013.9	1,078.5
Income (Loss) from Continuing Operations:			
Income (loss) from continuing operations, net of income tax	$ 5,909	$ 5,128	$ 5,006
Less: Income (loss) from continuing operations, net of income tax, attributable to noncontrolling interests	10	5	10
Less: Preferred stock dividends	178	141	103
Income (loss) from continuing operations, net of income tax, available to MetLife, Inc.'s common shareholders	$ 5,721	$ 4,982	$ 4,893
Basic	$ 6.10	$ 4.95	$ 4.57
Diluted	$ 6.06	$ 4.91	$ 4.53
Income (Loss) from Discontinued Operations:			
Income (loss) from discontinued operations, net of income tax	$ —	$ —	$ (986)
Less: Income (loss) from discontinued operations, net of income tax, attributable to noncontrolling interests	—	—	—
Income (loss) from discontinued operations, net of income tax, available to MetLife, Inc.'s common shareholders	$ —	$ —	$ (986)
Basic	$ —	$ —	$ (0.92)
Diluted	$ —	$ —	$ (0.91)
Net Income (Loss):			
Net income (loss)	$ 5,909	$ 5,128	$ 4,020
Less: Net income (loss) attributable to noncontrolling interests	10	5	10
Less: Preferred stock dividends	178	141	103
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 5,721	$ 4,982	$ 3,907
Basic	$ 6.10	$ 4.95	$ 3.65
Diluted	$ 6.06	$ 4.91	$ 3.62

21. Contingencies, Commitments and Guarantees

Contingencies

Litigation

The Company is a defendant in a large number of litigation matters. Putative or certified class action litigation and other litigation and claims and assessments against the Company, in addition to those discussed below and those otherwise provided for in the Company's consolidated financial statements, have arisen in the course of the Company's business, including, but not limited to, in connection with its activities as an insurer, mortgage lending bank, employer, investor, investment advisor, broker-dealer, and taxpayer.

The Company also receives and responds to subpoenas or other inquiries seeking a broad range of information from state regulators, including state insurance commissioners; state attorneys general or other state governmental authorities; federal regulators, including the SEC; federal governmental authorities, including congressional committees; and the Financial Industry Regulatory Authority, as well as from local and national regulators and government authorities in jurisdictions outside the United States where the Company conducts business. The issues involved in information requests and regulatory matters vary widely, but can include inquiries or investigations concerning the Company's compliance with applicable insurance and other laws and regulations. The Company cooperates in these inquiries.

In some of the matters, very large and/or indeterminate amounts, including punitive and treble damages, are sought. Modern pleading practice in the U.S. permits considerable variation in the assertion of monetary damages or other relief. Jurisdictions may permit claimants not to specify the monetary damages sought or may permit claimants to state only that the amount sought is sufficient to invoke the jurisdiction of the trial court. In addition, jurisdictions may permit plaintiffs to allege monetary damages in amounts well exceeding reasonably possible verdicts in the jurisdiction for similar matters. This variability in pleadings, together with the actual experience of the Company in litigating or resolving through settlement numerous claims over an extended period of time, demonstrates to management that the monetary relief which may be specified in a lawsuit or claim bears little relevance to its merits or disposition value.

It is not possible to predict the ultimate outcome of all pending investigations and legal proceedings. The Company establishes liabilities for litigation and regulatory loss contingencies when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Liabilities have been established for a number of the matters noted below. It is possible that some of the matters could require the Company to pay damages or make other expenditures or establish accruals in amounts that could not be reasonably estimated at December 31, 2019. While the potential future charges could be material in the particular quarterly or annual periods in which they are recorded, based on information currently known to management, management does not believe any such charges are likely to have a material effect on the Company's financial position. Given the large and/or indeterminate amounts sought in certain of these matters and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material effect on the Company's consolidated net income or cash flows in particular quarterly or annual periods.

Matters as to Which an Estimate Can Be Made

For some of the matters disclosed below, the Company is able to estimate a reasonably possible range of loss. For matters where a loss is believed to be reasonably possible, but not probable, the Company has not made an accrual. As of December 31, 2019, the Company estimates the aggregate range of reasonably possible losses in excess of amounts accrued for these matters to be $0 to $250 million.

Matters as to Which an Estimate Cannot Be Made

For other matters disclosed below, the Company is not currently able to estimate the reasonably possible loss or range of loss. The Company is often unable to estimate the possible loss or range of loss until developments in such matters have provided sufficient information to support an assessment of the range of possible loss, such as quantification of a damage demand from plaintiffs, discovery from other parties and investigation of factual allegations, rulings by the court on motions or appeals, analysis by experts, and the progress of settlement negotiations. On a quarterly and annual basis, the Company reviews relevant information with respect to litigation contingencies and updates its accruals, disclosures and estimates of reasonably possible losses or ranges of loss based on such reviews.

21. Contingencies, Commitments and Guarantees (continued)

Asbestos-Related Claims

MLIC is and has been a defendant in a large number of asbestos-related suits filed primarily in state courts. These suits principally allege that the plaintiff or plaintiffs suffered personal injury resulting from exposure to asbestos and seek both actual and punitive damages. MLIC has never engaged in the business of manufacturing, producing, distributing or selling asbestos or asbestos-containing products nor has MLIC issued liability or workers' compensation insurance to companies in the business of manufacturing, producing, distributing or selling asbestos or asbestos-containing products. The lawsuits principally have focused on allegations with respect to certain research, publication and other activities of one or more of MLIC's employees during the period from the 1920's through approximately the 1950's and allege that MLIC learned or should have learned of certain health risks posed by asbestos and, among other things, improperly publicized or failed to disclose those health risks. MLIC believes that it should not have legal liability in these cases. The outcome of most asbestos litigation matters, however, is uncertain and can be impacted by numerous variables, including differences in legal rulings in various jurisdictions, the nature of the alleged injury and factors unrelated to the ultimate legal merit of the claims asserted against MLIC. MLIC employs a number of resolution strategies to manage its asbestos loss exposure, including seeking resolution of pending litigation by judicial rulings and settling individual or groups of claims or lawsuits under appropriate circumstances.

Claims asserted against MLIC have included negligence, intentional tort and conspiracy concerning the health risks associated with asbestos. MLIC's defenses (beyond denial of certain factual allegations) include that: (i) MLIC owed no duty to the plaintiffs — it had no special relationship with the plaintiffs and did not manufacture, produce, distribute or sell the asbestos products that allegedly injured plaintiffs; (ii) plaintiffs did not rely on any actions of MLIC; (iii) MLIC's conduct was not the cause of the plaintiffs' injuries; (iv) plaintiffs' exposure occurred after the dangers of asbestos were known; and (v) the applicable time with respect to filing suit has expired. During the course of the litigation, certain trial courts have granted motions dismissing claims against MLIC, while other trial courts have denied MLIC's motions. There can be no assurance that MLIC will receive favorable decisions on motions in the future. While most cases brought to date have settled, MLIC intends to continue to defend aggressively against claims based on asbestos exposure, including defending claims at trials.

The approximate total number of asbestos personal injury claims pending against MLIC as of the dates indicated, the approximate number of new claims during the years ended on those dates and the approximate total settlement payments made to resolve asbestos personal injury claims at or during those years are set forth in the following table:

	December 31,		
	2019	2018	2017
	(In millions, except number of claims)		
Asbestos personal injury claims at year end	61,134	62,522	62,930
Number of new claims during the year	3,187	3,359	3,514
Settlement payments during the year (1)	$ 49.4	$ 51.4	$ 48.6

(1) Settlement payments represent payments made by MLIC during the year in connection with settlements made in that year and in prior years. Amounts do not include MLIC's attorneys' fees and expenses.

The number of asbestos cases that may be brought, the aggregate amount of any liability that MLIC may incur, and the total amount paid in settlements in any given year are uncertain and may vary significantly from year to year.

The ability of MLIC to estimate its ultimate asbestos exposure is subject to considerable uncertainty, and the conditions impacting its liability can be dynamic and subject to change. The availability of reliable data is limited and it is difficult to predict the numerous variables that can affect liability estimates, including the number of future claims, the cost to resolve claims, the disease mix and severity of disease in pending and future claims, the impact of the number of new claims filed in a particular jurisdiction and variations in the law in the jurisdictions in which claims are filed, the possible impact of tort reform efforts, the willingness of courts to allow plaintiffs to pursue claims against MLIC when exposure to asbestos took place after the dangers of asbestos exposure were well known, and the impact of any possible future adverse verdicts and their amounts.

21. Contingencies, Commitments and Guarantees (continued)

The ability to make estimates regarding ultimate asbestos exposure declines significantly as the estimates relate to years further in the future. In the Company's judgment, there is a future point after which losses cease to be probable and reasonably estimable. It is reasonably possible that the Company's total exposure to asbestos claims may be materially greater than the asbestos liability currently accrued and that future charges to income may be necessary. While the potential future charges could be material in the particular quarterly or annual periods in which they are recorded, based on information currently known by management, management does not believe any such charges are likely to have a material effect on the Company's financial position.

The Company believes adequate provision has been made in its consolidated financial statements for all probable and reasonably estimable losses for asbestos-related claims. MLIC's recorded asbestos liability is based on its estimation of the following elements, as informed by the facts presently known to it, its understanding of current law and its past experiences: (i) the probable and reasonably estimable liability for asbestos claims already asserted against MLIC, including claims settled but not yet paid; (ii) the probable and reasonably estimable liability for asbestos claims not yet asserted against MLIC, but which MLIC believes are reasonably probable of assertion; and (iii) the legal defense costs associated with the foregoing claims. Significant assumptions underlying MLIC's analysis of the adequacy of its recorded liability with respect to asbestos litigation include: (i) the number of future claims; (ii) the cost to resolve claims; and (iii) the cost to defend claims.

MLIC reevaluates on a quarterly and annual basis its exposure from asbestos litigation, including studying its claims experience, reviewing external literature regarding asbestos claims experience in the United States, assessing relevant trends impacting asbestos liability and considering numerous variables that can affect its asbestos liability exposure on an overall or per claim basis. These variables include bankruptcies of other companies involved in asbestos litigation, legislative and judicial developments, the number of pending claims involving serious disease, the number of new claims filed against it and other defendants and the jurisdictions in which claims are pending. Based upon its regular reevaluation of its exposure from asbestos litigation, MLIC has updated its recorded liability for asbestos-related claims to $457 million at December 31, 2019.

Sun Life Assurance Company of Canada Indemnity Claim

In 2006, Sun Life Assurance Company of Canada ("Sun Life"), as successor to the purchaser of MLIC's Canadian operations, filed a lawsuit in Toronto, seeking a declaration that MLIC remains liable for "market conduct claims" related to certain individual life insurance policies sold by MLIC that were subsequently transferred to Sun Life. In January 2010, the court found that Sun Life had given timely notice of its claim for indemnification but, because it found that Sun Life had not yet incurred an indemnifiable loss, granted MLIC's motion for summary judgment. In September 2010, Sun Life notified MLIC that a purported class action lawsuit was filed against Sun Life in Toronto alleging sales practices claims regarding the policies sold by MLIC and transferred to Sun Life (the "Ontario Litigation"). On August 30, 2011, Sun Life notified MLIC that another purported class action lawsuit was filed against Sun Life in Vancouver, BC alleging sales practices claims regarding certain of the same policies sold by MLIC and transferred to Sun Life. Sun Life contends that MLIC is obligated to indemnify Sun Life for some or all of the claims in these lawsuits. In September 2018, the Court of Appeal for Ontario affirmed the lower court's decision to not certify the sales practices claims in the Ontario Litigation. These sales practices cases against Sun Life are ongoing, and the Company is unable to estimate the reasonably possible loss or range of loss arising from this litigation.

City of Westland Police and Fire Retirement System v. MetLife, Inc., et. al. (S.D.N.Y., filed January 12, 2012)

Plaintiff filed this class action on behalf of a class of persons who either purchased MetLife, Inc. common shares between February 9, 2011, and October 6, 2011, or purchased or acquired MetLife, Inc. common stock in the Company's August 3, 2010 offering or the Company's March 4, 2011 offering. Plaintiff alleges that MetLife, Inc. and several current and former directors and executive officers of MetLife, Inc. violated the Securities Act of 1933, as well as the Exchange Act and Rule 10b-5 promulgated thereunder by issuing, or causing MetLife, Inc. to issue, materially false and misleading statements concerning MetLife, Inc.'s potential liability for millions of dollars in insurance benefits that should have purportedly been paid to beneficiaries or escheated to the states. Plaintiff seeks unspecified compensatory damages and other relief. The defendants intend to defend this action vigorously.

21. Contingencies, Commitments and Guarantees (continued)

Owens v. Metropolitan Life Insurance Company (N.D. Ga., filed April 17, 2014)

Plaintiff filed this class action lawsuit on behalf of persons for whom MLIC established a Total Control Account ("TCA") to pay death benefits under an ERISA plan. The action alleged that MLIC's use of the TCA as the settlement option for life insurance benefits under some group life insurance policies violated MLIC's fiduciary duties under ERISA. On September 27, 2016, the court denied MLIC's summary judgment motion in full and granted plaintiff's partial summary judgment motion. On September 29, 2017, the court certified a nationwide class. On November 19, 2019, the court approved a settlement in which MLIC agreed to pay $80 million to resolve the claims of all class members. The settlement does not include or constitute an admission, concession, or finding of any fault, liability, or wrongdoing by MLIC. The Company accrued the full amount of the settlement payment in prior periods and the payment was made.

Martin v. Metropolitan Life Insurance Company (Superior Court of the State of California, County of Contra Costa, filed December 17, 2015)

Plaintiffs filed this putative class action lawsuit on behalf of themselves and all California persons who have been charged compound interest by MLIC in life insurance policy and/or premium loan balances within the last four years. Plaintiffs allege that MLIC has engaged in a pattern and practice of charging compound interest on life insurance policy and premium loans without the borrower authorizing such compounding, and that this constitutes an unlawful business practice under California law. Plaintiffs assert causes of action for declaratory relief, violation of California's Unfair Competition Law and Usury Law, and unjust enrichment. Plaintiffs seek declaratory and injunctive relief, restitution of interest, and damages in an unspecified amount. On April 12, 2016, the court granted MLIC's motion to dismiss. Plaintiffs appealed this ruling to the United States Court of Appeals for the Ninth Circuit. The Ninth Circuit dismissed the appeal on December 2, 2019.

Newman v. Metropolitan Life Insurance Company (N.D. Ill., filed March 23, 2016)

Plaintiff filed this putative class action alleging causes of action for breach of contract, fraud, and violations of the Illinois Consumer Fraud and Deceptive Business Practices Act, on behalf of herself and all persons over age 65 who selected a Reduced Pay at Age 65 payment feature on their long-term care insurance policies and whose premium rates were increased after age 65. Plaintiff seeks unspecified compensatory, statutory and punitive damages, as well as recessionary and injunctive relief. On April 12, 2017, the court granted MLIC's motion to dismiss the action. Plaintiff appealed this ruling and the United States Court of Appeals for the Seventh Circuit reversed and remanded the case to the district court for further proceedings. The parties reached an agreement on a nationwide class settlement of the case, which the district court preliminarily approved on November 7, 2019, subject to a final fairness hearing on February 20, 2020. The Company accrued the full amount of the expected settlement payment in prior periods.

Julian & McKinney v. Metropolitan Life Insurance Company (S.D.N.Y., filed February 9, 2017)

Plaintiffs filed this putative class and collective action on behalf of themselves and all current and former long-term disability ("LTD") claims specialists between February 2011 and the present for alleged wage and hour violations under the Fair Labor Standards Act, the New York Labor Law, and the Connecticut Minimum Wage Act. The suit alleges that MLIC improperly reclassified the plaintiffs and similarly situated LTD claims specialists from non-exempt to exempt from overtime pay in November 2013. As a result, they and members of the putative class were no longer eligible for overtime pay even though they allege they continued to work more than 40 hours per week. Plaintiffs seek unspecified compensatory and punitive damages, as well as other relief. On March 22, 2018, the court conditionally certified the case as a collective action, requiring that notice be mailed to LTD claims specialists who worked for MLIC from February 8, 2014 to the present. MLIC intends to defend this action vigorously.

Total Asset Recovery Services, LLC. v. MetLife, Inc., et al. (Supreme Court of the State of New York, County of New York, filed December 27, 2017)

Total Asset Recovery Services ("The Relator") brought an action under the qui tam provision of the New York False Claims Act (the "Act") on behalf of itself and the State of New York. The Relator originally filed this action under seal in 2010, and the complaint was unsealed on December 19, 2017. The Relator alleges that MetLife, Inc., MLIC, and several other insurance companies violated the Act by filing false unclaimed property reports with the State of New York from 1986 to 2017, to avoid having to escheat the proceeds of more than 25,000 life insurance policies, including policies for which the defendants escheated funds as part of their demutualizations in the late 1990s. The Relator seeks treble damages and other relief. On April 3, 2019, the court granted MetLife, Inc.'s and MLIC's motion to dismiss and dismissed the complaint in its entirety. The Relator filed an appeal with the Appellate Division of the New York State Supreme Court, First Division.

21. Contingencies, Commitments and Guarantees (continued)

Matters Related to Group Annuity Benefits and Assumed Variable Annuity Guarantee Reserves

In 2018, the Company announced that it identified two material weaknesses in its internal control over financial reporting related to the practices and procedures for estimating reserves for certain group annuity benefits and the calculation of reserves associated with certain variable annuity guarantees assumed from the former operating joint venture in Japan. The Company is exposed to lawsuits and regulatory investigations, and could be exposed to additional legal actions relating to these issues. These may result in payments, including damages, fines, penalties, interest and other amounts assessed or awarded by courts or regulatory authorities under applicable escheat, tax, securities, ERISA, or other laws or regulations. The Company could incur significant costs in connection with these actions.

Regulatory Matters

The Company settled the SEC charges related to these matters without admitting or denying the SEC's findings. Other jurisdictions may pursue similar investigations or inquiries.

Litigation Matters

Parchmann v. MetLife, Inc., et. al. (E.D.N.Y., filed February 5, 2018)

Plaintiff filed this putative class action seeking to represent a class of persons who purchased MetLife, Inc. common stock from February 27, 2013 through January 29, 2018. Plaintiff alleges that MetLife, Inc., its Chief Executive Officer and Chairman of the Board, and its Chief Financial Officer violated Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder by issuing materially false and/or misleading financial statements. Plaintiff alleges that MetLife's practices and procedures for estimating reserves for certain group annuity benefits were inadequate, and that MetLife had inadequate internal control over financial reporting. Plaintiff seeks unspecified compensatory damages and other relief. Defendants intend to defend this action vigorously.

Atkins et. al. v. MetLife, Inc., et. al. (D.Nev., filed November 18, 2019)

Plaintiffs filed this putative class action on behalf of all persons due benefits under group annuity contracts but who did not receive the entire amount to which they were entitled. Plaintiffs assert claims for breach of contract, breach of fiduciary duty, breach of implied covenant of good faith and fair dealing, unjust enrichment, and conversion based on allegations that the defendants failed to timely pay annuity benefits to certain group annuitants. Plaintiffs seek declaratory and injunctive relief, as well as unspecified compensatory and punitive damages, and other relief. Defendants intend to defend this action vigorously.

Derivative Actions and Demands

Shareholders, seeking to sue derivatively on behalf of MetLife, Inc., commenced three separate actions against certain current and former members of the MetLife, Inc. Board of Directors and/or certain current and former officers of MetLife, Inc., alleging that, among other things, they breached their fiduciary and other duties to the Company. In *Kates v. Kandarian, et al.* (E.D.N.Y., filed January 18, 2019) and *Felt, et al. v. Grise, et al.* (D. Del., filed April 29, 2019), plaintiffs allege that the defendants disseminated or approved public statements that failed to disclose that MetLife's practices and procedures for estimating reserves for certain group annuity benefits were inadequate and that MetLife had inadequate internal control over financial reporting. In *Lifschitz v. Kandarian, et al.* (Del. Ch., filed June 19, 2019), plaintiff alleges that the MetLife, Inc. Board of Directors knew or should have known that MetLife's practices and procedures for estimating reserves for certain group annuity benefits were inadequate. In all three actions, plaintiffs allege that because of the defendants' breaches of duty, MetLife, Inc. has incurred damage to its reputation and has suffered other unspecified damages. The defendants intend to defend these actions vigorously.

The MetLife, Inc. Board of Directors received five letters, dated March 28, 2018, May 11, 2018, July 16, 2018, December 20, 2018 and February 5, 2019, written on behalf of individual stockholders, demanding that MetLife, Inc. take action against current and former directors and officers for alleged breaches of fiduciary duty and/or investigate, remediate, and recover damages allegedly suffered by the Company as a result of (i) the Company's allegedly inadequate practices and procedures for estimating reserves for certain group annuity benefits, (ii) the Company's allegedly inadequate internal controls over financial reporting and corporate governance practices and procedures, and (iii) the alleged dissemination of false or misleading information related to these issues. The MetLife, Inc. Board of Directors appointed a special committee to investigate the allegations set forth in these five letters.

21. Contingencies, Commitments and Guarantees (continued)

Insolvency Assessments

Many jurisdictions in which the Company is admitted to transact business require insurers doing business within the jurisdiction to participate in guaranty associations, which are organized to pay contractual benefits owed pursuant to insurance policies issued by impaired, insolvent or failed insurers or those that may become impaired, insolvent or fail. These associations levy assessments, up to prescribed limits, on all member insurers in a particular jurisdiction on the basis of the proportionate share of the premiums written by member insurers in the lines of business in which the impaired, insolvent or failed insurer engaged. In addition, certain jurisdictions have government owned or controlled organizations providing life, health and property and casualty insurance to their citizens, whose activities could place additional stress on the adequacy of guaranty fund assessments. Many of these organizations have the power to levy assessments similar to those of the guaranty associations. Some jurisdictions permit member insurers to recover assessments paid through full or partial premium tax offsets.

Assets and liabilities held for insolvency assessments were as follows:

	December 31,	
	2019	2018
	(In millions)	
Other Assets:		
Premium tax offset for future discounted and undiscounted assessments	$ 43	$ 47
Premium tax offset currently available for paid assessments	43	46
Total	$ 86	$ 93
Other Liabilities:		
Insolvency assessments	$ 62	$ 67

Mortgage Loan Commitments

The Company commits to lend funds under mortgage loan commitments. The amounts of these mortgage loan commitments were $4.1 billion and $4.0 billion at December 31, 2019 and 2018, respectively.

Commitments to Fund Partnership Investments, Bank Credit Facilities, Bridge Loans and Private Corporate Bond Investments

The Company commits to fund partnership investments and to lend funds under bank credit facilities, bridge loans and private corporate bond investments. The amounts of these unfunded commitments were $8.1 billion and $7.7 billion at December 31, 2019 and 2018, respectively.

Guarantees

In the normal course of its business, the Company has provided certain indemnities, guarantees and commitments to third parties such that it may be required to make payments now or in the future. In the context of acquisition, disposition, investment and other transactions, the Company has provided indemnities and guarantees, including those related to tax, environmental and other specific liabilities and other indemnities and guarantees that are triggered by, among other things, breaches of representations, warranties or covenants provided by the Company. In addition, in the normal course of business, the Company provides indemnifications to counterparties in contracts with triggers similar to the foregoing, as well as for certain other liabilities, such as third-party lawsuits. These obligations are often subject to time limitations that vary in duration, including contractual limitations and those that arise by operation of law, such as applicable statutes of limitation. In some cases, the maximum potential obligation under the indemnities and guarantees is subject to a contractual limitation ranging from less than $1 million to $329 million, with a cumulative maximum of $536 million, while in other cases such limitations are not specified or applicable. Since certain of these obligations are not subject to limitations, the Company does not believe that it is possible to determine the maximum potential amount that could become due under these guarantees in the future. Management believes that it is unlikely the Company will have to make any material payments under these indemnities, guarantees, or commitments.

In addition, the Company indemnifies its directors and officers as provided in its charters and by-laws. Also, the Company indemnifies its agents for liabilities incurred as a result of their representation of the Company's interests. Since these indemnities are generally not subject to limitation with respect to duration or amount, the Company does not believe that it is possible to determine the maximum potential amount that could become due under these indemnities in the future.

21. Contingencies, Commitments and Guarantees (continued)

The Company also has minimum fund yield requirements on certain pension funds. Since these guarantees are not subject to limitation with respect to duration or amount, the Company does not believe that it is possible to determine the maximum potential amount that could become due under these guarantees in the future.

The Company's recorded liabilities were $6 million and $7 million at December 31, 2019 and 2018, respectively, for indemnities, guarantees and commitments.

22. Quarterly Results of Operations (Unaudited)

The unaudited quarterly results of operations for 2019 and 2018 are summarized in the table below:

	Three Months Ended			
	March 31,	June 30,	September 30,	December 31,
	(In millions, except per share data)			
2019				
Total revenues	$ 16,302	$ 17,497	$ 18,678	$ 17,143
Total expenses	$ 14,558	$ 15,200	$ 15,887	$ 17,180
Net income (loss)	$ 1,385	$ 1,746	$ 2,190	$ 588
Less: Net income (loss) attributable to noncontrolling interests	$ 4	$ 5	$ 6	$ (5)
Net income (loss) attributable to MetLife, Inc.	$ 1,381	$ 1,741	$ 2,184	$ 593
Less: Preferred stock dividends	$ 32	$ 57	$ 32	$ 57
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1,349	$ 1,684	$ 2,152	$ 536
Basic earnings per common share				
Net income (loss) attributable to MetLife, Inc.	$ 1.44	$ 1.84	$ 2.35	$ 0.65
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1.41	$ 1.78	$ 2.31	$ 0.58
Diluted earnings per common share				
Net income (loss) attributable to MetLife, Inc.	$ 1.43	$ 1.83	$ 2.33	$ 0.64
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1.40	$ 1.77	$ 2.30	$ 0.58
2018				
Total revenues	$ 14,805	$ 21,185	$ 16,289	$ 15,662
Total expenses	$ 13,149	$ 20,084	$ 15,210	$ 13,191
Net income (loss)	$ 1,257	$ 894	$ 915	$ 2,062
Less: Net income (loss) attributable to noncontrolling interests	$ 4	$ 3	$ 3	$ (5)
Net income (loss) attributable to MetLife, Inc.	$ 1,253	$ 891	$ 912	$ 2,067
Less: Preferred stock dividends	$ 6	$ 46	$ 32	$ 57
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1,247	$ 845	$ 880	$ 2,010
Basic earnings per common share				
Net income (loss) attributable to MetLife, Inc.	$ 1.21	$ 0.88	$ 0.92	$ 2.11
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1.20	$ 0.83	$ 0.89	$ 2.05
Diluted earnings per common share				
Net income (loss) attributable to MetLife, Inc.	$ 1.20	$ 0.87	$ 0.91	$ 2.09
Net income (loss) available to MetLife, Inc.'s common shareholders	$ 1.19	$ 0.83	$ 0.88	$ 2.04

23. Subsequent Events

Preferred Stock Issuance

On January 15, 2020, MetLife, Inc. issued 40,000 shares of 4.75% Non-Cumulative Preferred Stock, Series F (the "Series F preferred stock") with a $0.01 par value per share and a liquidation preference of $25,000 per share, for aggregate net proceeds of $972 million. MetLife, Inc. deposited the Series F preferred stock under a deposit agreement with a depositary, which issued interests in fractional shares of the Series F preferred stock in the form of depositary shares ("Series F Depositary Shares") evidenced by depositary receipts; each Series F Depositary Share representing 1/1,000th interest in a share of the Series F preferred stock. In connection with the offering of the Series F Depositary Shares, MetLife, Inc. incurred approximately $28 million of issuance costs which have been recorded as a reduction of additional paid-in capital.

MetLife, Inc. will pay dividends on the Series F Preferred Stock only when, as and if declared by MetLife, Inc.'s Board of Directors (or a duly authorized committee thereof), out of funds legally available for the payment of dividends. Any such dividends will be payable on a non-cumulative basis from the date of original issue, quarterly in arrears on the 15th day of March, June, September and December of each year, commencing on June 15, 2020.

MetLife, Inc. may, at its option, redeem the Series F preferred stock, (i) in whole but not in part at any time prior to March 15, 2025, within 90 days after the occurrence of a "rating agency event," at a redemption price equal to $25,500 per share of Series F preferred stock (equivalent to $25.50 per Series F Depositary Share), plus an amount equal to any accrued and unpaid dividends per share that have accrued but have not been declared and paid for the then-current dividend period to, but excluding, the redemption date; (ii) in whole but not in part, at any time prior to March 15, 2025, within 90 days after the occurrence of a "regulatory capital event"; and (iii) in whole or in part, at any time or from time to time, on or after March 15, 2025, in the case of (ii) or (iii), at a redemption price equal to $25,000 per share of Series F preferred stock (equivalent to $25 per Series F Depositary Share), plus an amount equal to any dividends per share that have accrued but not been declared and paid for the then-current dividend period to, but excluding, such redemption date. A "rating agency event" means that any nationally recognized statistical rating organization that then publishes a rating for MetLife, Inc. amends, clarifies or changes the criteria used to assign equity credit to securities like the Series F preferred stock, which results in the lowering of the equity credit assigned to the Series F preferred stock or shortens the length of time that the Series F preferred stock is assigned a particular level of equity credit. A "regulatory capital event" could occur as a result of a change or proposed change in capital adequacy rules (or the interpretation or application thereof) of any capital regulator, including but not limited to the Federal Reserve Board, the Federal Insurance Office, the NAIC or any state insurance regulator as may then have group-wide oversight of MetLife, Inc.'s regulatory capital, from rules (or the interpretation or application thereof) in effect as of January 15, 2020, that would create a more than insubstantial risk, as determined by MetLife, Inc., that the Series F preferred stock would not be treated as "Tier 1 capital" or as capital with attributes similar to those of Tier 1 capital, except that a "regulatory capital event" will not include a change or proposed change (or the interpretation or application thereof) that would result in the adoption of any criteria substantially the same as the criteria in the capital adequacy rules of the Federal Reserve Board applicable to bank holding companies as of January 15, 2020.

Preferred Stock Dividends

On February 18, 2020, MetLife, Inc. announced a first quarter 2020 dividend of $0.253 per share, for a total of $6 million, on its Series A preferred stock, subject to the final confirmation that it has met the financial tests specified in the certificate of designation for the Series A preferred stock, which the Company anticipates will be made and announced on or about March 5, 2020. The dividend will be payable on March 16, 2020 to shareholders of record as of March 1, 2020.

On February 18, 2020, MetLife, Inc. announced a first quarter 2020 dividend of $29.375 per share, for a total of $15 million, on its Series D preferred stock, and $351.563 per share, for a total of $11 million, on its Series E preferred stock. Both dividends will be payable on March 16, 2020 to shareholders of record as of February 29, 2020.

Common Stock Repurchases

In 2019, through February 14, 2020, MetLife, Inc. repurchased 973,315 shares of its common stock in the open market for $51 million.

Common Stock Dividend

On January 7, 2020, the MetLife, Inc. Board of Directors declared a first quarter 2020 common stock dividend of $0.44 per share payable on March 13, 2020 to shareholders of record as of February 4, 2020. The Company estimates that the aggregate dividend payment will be $404 million.

MetLife, Inc.

Schedule I

**Consolidated Summary of Investments —
Other Than Investments in Related Parties
December 31, 2019**

(In millions)

Types of Investments	Cost or Amortized Cost (1)	Estimated Fair Value	Amount at Which Shown on Balance Sheet
Fixed maturity securities AFS:			
Bonds:			
Foreign government	$ 58,840	$ 67,229	$ 67,229
U.S. government and agency	37,586	42,084	42,084
Public utilities	12,067	13,807	13,807
Municipals	11,081	13,053	13,053
All other corporate bonds	125,296	136,914	136,914
Total bonds	244,870	273,087	273,087
Mortgage-backed and asset-backed securities	51,691	53,536	53,536
Redeemable preferred stock	1,094	1,197	1,197
Total fixed maturity securities AFS	297,655	327,820	327,820
Unit-linked and FVO Securities	11,329	13,102	13,102
Equity securities:			
Common stock:			
Industrial, miscellaneous and all other	508	700	700
Banks, trust and insurance companies	105	178	178
Public utilities	67	66	66
Non-redeemable preferred stock	385	398	398
Total equity securities	1,065	1,342	1,342
Mortgage loans	80,529		80,529
Policy loans	9,680		9,680
Real estate and real estate joint ventures	10,705		10,705
Real estate acquired in satisfaction of debt	36		36
Other limited partnership interests	7,716		7,716
Short-term investments	3,850		3,850
Other invested assets	19,015		19,015
Total investments	$ 441,580		$ 473,795

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(1) The Unit-linked and FVO Securities are primarily equity securities (including mutual funds) and fixed maturity securities. Amortized cost for fixed maturity securities AFS, mortgage loans and short-term investments represents original cost reduced by repayments, valuation allowances and impairments from other-than-temporary declines in estimated fair value that are charged to earnings and adjusted for amortization of premium or accretion of discount; for equity securities, cost represents original cost; for real estate, cost represents original cost reduced by impairments and depreciation; for real estate joint ventures and other limited partnership interests, cost represents original cost reduced for impairments or original cost adjusted for equity in earnings and distributions.

MetLife, Inc.

Schedule II

Condensed Financial Information
(Parent Company Only)
December 31, 2019 and 2018

(In millions, except share and per share data)

	2019	2018
Condensed Balance Sheets		
Assets		
Investments:		
Fixed maturity securities available-for-sale, at estimated fair value (amortized cost: $3,062 and $2,745, respectively)	$ 3,073	$ 2,726
Short-term investments, principally at estimated fair value	2	16
Other invested assets, at estimated fair value	120	87
Total investments	3,195	2,829
Cash and cash equivalents	377	376
Accrued investment income	12	53
Investment in subsidiaries	79,571	66,567
Loans to subsidiaries	100	100
Other assets	747	843
Total assets	$ 84,002	$ 70,768
Liabilities and Stockholders' Equity		
Liabilities		
Payables for collateral under derivatives transactions	$ 16	$ 9
Long-term debt — unaffiliated	12,379	11,844
Long-term debt — affiliated	1,976	1,957
Junior subordinated debt securities	2,458	2,456
Other liabilities	1,029	1,761
Total liabilities	17,858	18,027
Stockholders' Equity		
Preferred stock, par value $0.01 per share; $3,405 aggregate liquidation preference	—	—
Common stock, par value $0.01 per share; 3,000,000,000 shares authorized; 1,177,680,299 and 1,171,824,242 shares issued, respectively; 915,338,098 and 958,613,542 shares outstanding, respectively	12	12
Additional paid-in capital	32,680	32,474
Retained earnings	33,078	28,926
Treasury stock, at cost; 262,342,201 and 213,210,700 shares, respectively	(12,678)	(10,393)
Accumulated other comprehensive income (loss)	13,052	1,722
Total stockholders' equity	66,144	52,741
Total liabilities and stockholders' equity	$ 84,002	$ 70,768

See accompanying notes to the condensed financial information.

MetLife, Inc.

Schedule II

Condensed Financial Information — (continued)
(Parent Company Only)
For the Years Ended December 31, 2019, 2018 and 2017

(In millions)

	2019	2018	2017
Condensed Statements of Operations			
Revenues			
Equity in earnings of subsidiaries	$ 6,301	$ 6,466	$ 7,162
Net investment income	77	87	101
Other revenues	27	19	59
Net investment gains (losses)	(40)	(277)	(1,142)
Net derivative gains (losses)	(45)	(56)	(186)
Total revenues	6,320	6,239	5,994
Expenses			
Interest expense	850	1,009	1,108
Termination of financing arrangements	—	—	294
Other expenses	153	158	657
Total expenses	1,003	1,167	2,059
Income (loss) before provision for income tax	5,317	5,072	3,935
Provision for income tax expense (benefit)	(582)	(51)	(75)
Net income (loss)	5,899	5,123	4,010
Less: Preferred stock dividends	178	141	103
Net income (loss) available to common shareholders	$ 5,721	$ 4,982	$ 3,907
Comprehensive income (loss)	$ 17,208	$ (1,494)	$ 7,391

See accompanying notes to the condensed financial information.

MetLife, Inc.

Schedule II

Condensed Financial Information — (continued)
(Parent Company Only)
For the Years Ended December 31, 2019, 2018 and 2017

(In millions)

	2019	2018	2017
Condensed Statements of Cash Flows			
Cash flows from operating activities			
Net income (loss)	$ 5,899	$ 5,123	$ 4,010
Earnings of subsidiaries	(6,301)	(6,466)	(7,162)
Dividends from subsidiaries	4,790	7,367	6,745
(Gains) losses on investments and from sales of businesses, net	40	277	1,142
Tax separation agreement charge	—	—	1,093
Other, net	(251)	(807)	634
Net cash provided by (used in) operating activities	4,177	5,494	6,462
Cash flows from investing activities			
Sales of fixed maturity securities available-for-sale	3,153	9,635	7,217
Purchases of fixed maturity securities available-for-sale	(3,380)	(8,178)	(7,733)
Cash received in connection with freestanding derivatives	101	227	452
Cash paid in connection with freestanding derivatives	(392)	(237)	(629)
Expense paid on behalf of subsidiaries	(13)	(14)	(42)
Returns of capital from subsidiaries	10	87	610
Capital contributions to subsidiaries	(75)	(767)	(339)
Net change in short-term investments	14	14	118
Other, net	28	(3)	(14)
Net cash provided by (used in) investing activities	(554)	764	(360)
Cash flows from financing activities			
Net change in payables for collateral under derivative transactions	7	(27)	(111)
Long-term debt issued	1,382	—	—
Long-term debt repaid	(877)	(1,759)	(1,000)
Fees paid for the termination of a committed facility related to Separation	—	—	(244)
Treasury stock acquired in connection with share repurchases	(2,285)	(3,992)	(2,927)
Preferred stock issued, net of issuance costs	—	1,274	—
Dividends on preferred stock	(178)	(141)	(103)
Dividends on common stock	(1,643)	(1,678)	(1,717)
Other, net	(28)	(75)	182
Net cash provided by (used in) financing activities	(3,622)	(6,398)	(5,920)
Change in cash and cash equivalents	1	(140)	182
Cash and cash equivalents, beginning of year	376	516	334
Cash and cash equivalents, end of year	$ 377	$ 376	$ 516

MetLife, Inc.

Schedule II

Condensed Financial Information — (continued)
(Parent Company Only)
For the Years Ended December 31, 2019, 2018 and 2017

(In millions)

	2019	2018	2017
Supplemental disclosures of cash flow information			
Net cash paid (received) for:			
Interest	$ 864	$ 1,040	$ 1,096
Income tax:			
Amounts paid to (received from) subsidiaries, net	$ (152)	$ (33)	$ (1,552)
Amounts paid to Brighthouse in accordance with the tax separation agreement	—	909	729
Income tax paid (received) by MetLife, Inc., net	(3)	1	(37)
Total income tax, net	$ (155)	$ 877	$ (860)
Non-cash transactions			
Returns of capital from subsidiaries	$ 29	$ 3,844	$ 17,518
Capital contributions to subsidiaries	$ 30	$ 3,844	$ 15,655
Distribution of Brighthouse	$ —	$ —	$ 10,346
Allocation of interest expense to subsidiary	$ —	$ —	$ 15
Allocation of interest income to subsidiary	$ —	$ —	$ 4
Brighthouse common stock exchange transaction (Note 3):			
Reduction of long-term debt	$ —	$ 944	$ —
Reduction of fair value option securities	$ —	$ 1,030	$ —

MetLife, Inc.

Schedule II

Notes to the Condensed Financial Information
(Parent Company Only)

1. Basis of Presentation

The condensed financial information of MetLife, Inc. (parent company only) should be read in conjunction with the consolidated financial statements of MetLife, Inc. and its subsidiaries and the notes thereto (the “Consolidated Financial Statements”). These condensed unconsolidated financial statements reflect the results of operations, financial position and cash flows for MetLife, Inc. Investments in subsidiaries are accounted for using the equity method of accounting.

The preparation of these condensed unconsolidated financial statements in conformity with GAAP requires management to adopt accounting policies and make certain estimates and assumptions. The most important of these estimates and assumptions relate to the fair value measurements, the accounting for goodwill and identifiable intangible assets and the provision for potential losses that may arise from litigation and regulatory proceedings and tax audits, which may affect the amounts reported in the condensed unconsolidated financial statements and accompanying notes. Actual results could differ from these estimates.

2. Investment in Subsidiaries

On August 3, 2017, Brighthouse Financial, Inc. paid a cash dividend to MetLife, Inc. of $1.8 billion in connection with the Separation.

3. Loans to Subsidiaries

MetLife, Inc. lends funds as necessary, through credit agreements or otherwise to its subsidiaries, some of which are regulated, to meet their capital requirements or to provide liquidity. Payments of interest and principal on surplus notes of regulated subsidiaries, which are subordinate to all other obligations of the issuing company, may be made only with the prior approval of the insurance department of the state of domicile.

In April 2017, in connection with the Separation, MetLife, Inc. repaid $750 million and $350 million senior notes to MetLife Reinsurance Company of Delaware (“MRD”) due September 2032 and December 2033, respectively, in an exchange transaction. The $750 million senior note bore interest at a fixed rate of 4.21% and the $350 million senior note bore interest at a fixed rate of 5.10%. Simultaneously, MRD repaid $750 million and $350 million surplus notes to MetLife, Inc. The $750 million surplus note bore interest at a fixed rate of 5.13% and the $350 million surplus note bore interest at a fixed rate of 6.00% (the “MRD Notes Exchange”).

Interest income earned on loans to subsidiaries of $3 million, $3 million and $44 million for the years ended December 31, 2019, 2018 and 2017, respectively, is included in net investment income.

MetLife, Inc.

Schedule II

Notes to the Condensed Financial Information — (continued)

4. Long-term Debt

Long-term debt outstanding was as follows:

	Interest Rates (1)		Maturity	December 31,	
	Range	Weighted Average		2019	2018
	(Dollars in millions)				
Senior notes — unaffiliated (2)	0.50% - 6.50%	4.72%	2022 - 2046	$ 12,379	$ 11,844
Senior notes — affiliated	0.82% - 3.14%	2.25%	2020 - 2029	1,976	1,957
Total				$ 14,355	$ 13,801

(1) Range of interest rates and weighted average interest rates are for the year ended December 31, 2019.

(2) Net of $81 million and $79 million of unamortized issuance costs and net premiums and discounts at December 31, 2019 and 2018, respectively.

See Note 13 of the Notes to the Consolidated Financial Statements.

The aggregate maturities of long-term debt at December 31, 2019 for the next five years and thereafter are $244 million in 2020, $997 million in 2021, $500 million in 2022, $1.3 billion in 2023, $1.5 billion in 2024 and $9.8 billion thereafter.

Senior Notes – Affiliated

In May 2018, $500 million in senior notes previously issued by MetLife, Inc. to MLIC and other subsidiaries were redenominated to new ¥54.6 billion senior notes. The ¥54.6 billion senior notes mature in December 2021 and bear interest at a rate per annum of 3.14%, payable semi-annually.

In April 2018, $500 million in senior notes previously issued by MetLife, Inc. to MLIC and other subsidiaries were redenominated to new ¥53.7 billion senior notes. The ¥53.7 billion senior notes mature in July 2021 and bear interest at a rate per annum of 2.97%, payable semi-annually.

In March 2018, three senior notes previously issued by MetLife, Inc. to MLIC were redenominated to Japanese yen, two of which have been refinanced upon maturity.

- A $500 million senior note was redenominated to a new ¥53.3 billion senior note. The ¥53.3 billion senior note bore interest at a rate per annum of 1.45%, payable semi-annually. In July 2019, this note matured and was refinanced with a ¥37.3 billion 1.602% senior note due July 2023 and a ¥16.0 billion 1.637% senior note due July 2026, both issued to MLIC and payable semi-annually.
- A $250 million senior note was redenominated to a new ¥26.5 billion senior note. The ¥26.5 billion senior note bore interest at a rate per annum of 1.72% payable semi-annually. In October 2019, this note matured and was refinanced with a ¥26.5 billion 1.81% senior note due October 2029 issued to MLIC, payable semi-annually.
- A $250 million senior note was also redenominated to a new ¥26.5 billion senior note. The ¥26.5 billion senior note matures in September 2020 and bears interest at a rate per annum of 0.82%, payable semi-annually.

See Note 3 for information on the MRD Notes Exchange in 2017.

4. Long-term Debt (continued)

Interest Expense

Interest expense was comprised of the following:

	Years Ended December 31,		
	2019	2018	2017
		(In millions)	
Long-term debt — unaffiliated	$ 591	$ 755	$ 774
Long-term debt — affiliated	48	45	112
Collateral financing arrangements	6	6	27
Junior subordinated debt securities	205	203	195
Total	$ 850	$ 1,009	$ 1,108

See Notes 14 and 15 of the Notes to the Consolidated Financial Statements for information about the collateral financing arrangement and junior subordinated debt securities.

5. Support Agreements

MetLife, Inc. is party to various capital support commitments and guarantees with certain of its subsidiaries. Under these arrangements, MetLife, Inc. has agreed to cause each such entity to meet specified capital and surplus levels or has guaranteed certain contractual obligations.

MetLife, Inc. guarantees the obligations of its subsidiary, Missouri Reinsurance, Inc. (“MoRe”), under a retrocession agreement with RGA Reinsurance (Barbados) Inc., pursuant to which MoRe retrocedes a portion of the closed block liabilities associated with industrial life and ordinary life insurance policies that it assumed from MLIC.

MetLife, Inc. guarantees the obligations of MetLife Reinsurance Company of Bermuda, Ltd. (“MrB”), a Bermuda insurance affiliate and an indirect, wholly-owned subsidiary of MetLife, Inc. under a reinsurance agreement with Mitsui Sumitomo Primary Life Insurance Co., Ltd. (“Mitsui”), a former affiliate that is now an unaffiliated third party, under which MrB reinsures certain variable annuity business written by Mitsui.

MetLife, Inc. guarantees the obligations of MrB in an aggregate amount up to $1.0 billion, under a reinsurance agreement with MetLife Europe d.a.c. under which MrB reinsured the guaranteed living benefits and guaranteed death benefits associated with certain unit-linked variable annuity type liability contracts issued by MetLife Europe d.a.c.

MetLife, Inc., in connection with MRV’s reinsurance of certain universal life and term life insurance risks, committed to the Vermont Department of Banking, Insurance, Securities and Health Care Administration to take necessary action to cause the two protected cells of MRV to maintain total adjusted capital in an amount that is equal to or greater than 200% of each such protected cell’s authorized control level RBC, as defined in Vermont state insurance statutes. See Note 13 of the Notes to the Consolidated Financial Statements.

MetLife, Inc., in connection with the collateral financing arrangement associated with MRC’s reinsurance of a portion of the liabilities associated with the closed block, committed to the South Carolina Department of Insurance to make capital contributions, if necessary, to MRC so that MRC may at all times maintain its total adjusted capital in an amount that is equal to or greater than 200% of the Company Action Level RBC, as defined in South Carolina state insurance statutes as in effect on the date of determination or December 31, 2007, whichever calculation produces the greater capital requirement, or as otherwise required by the South Carolina Department of Insurance. See Note 14 of the Notes to the Consolidated Financial Statements.

MetLife, Inc.

Schedule II

Notes to the Condensed Financial Information — (continued)

(Parent Company Only)

5. Support Agreements (continued)

MetLife, Inc. guarantees obligations arising from OTC-bilateral derivatives of the following subsidiaries: MrB, MetLife International Holdings, LLC and MetLife Worldwide Holdings, LLC. These subsidiaries are exposed to various risks relating to their ongoing business operations, including interest rate, foreign currency exchange rate, credit and equity market. These subsidiaries use a variety of strategies to manage these risks, including the use of derivatives. Further, all of the subsidiaries' derivatives are subject to industry standard netting agreements and collateral agreements that limit the unsecured portion of any open derivative position. On a net counterparty basis at December 31, 2019 and 2018, derivative transactions with positive mark-to-market values (in-the-money) were $360 million and $302 million, respectively, and derivative transactions with negative mark-to-market values (out-of-the-money) were $197 million and $84 million, respectively. To secure the obligations represented by the out of-the-money transactions, the subsidiaries had provided collateral to their counterparties with an estimated fair value of $196 million and $84 million at December 31, 2019 and 2018, respectively. Accordingly, unsecured derivative liabilities guaranteed by MetLife, Inc. were $1 million and $0 at December 31, 2019 and 2018, respectively.

MetLife, Inc. also guarantees the obligations of certain of its subsidiaries under committed facilities with third-party banks. See Note 13 of the Notes to the Consolidated Financial Statements.

MetLife, Inc.

Schedule III

Consolidated Supplementary Insurance Information
December 31, 2019 and 2018

(In millions)

Segment	DAC and VOBA	Future Policy Benefits, Other Policy-Related Balances and Policyholder Dividend Obligation	Policyholder Account Balances	Policyholder Dividends Payable	Unearned Premiums (1), (2)	Unearned Revenue (1)
2019						
U.S.	$ 649	$ 79,147	$ 71,180	$ —	$ 2,062	$ 41
Asia	9,764	42,328	75,699	75	2,275	973
Latin America	2,038	10,840	5,071	—	123	762
EMEA	1,701	5,221	11,730	5	23	509
MetLife Holdings	3,656	74,999	28,966	601	164	193
Corporate & Other	25	1,565	(19)	—	—	—
Total	$17,833	$ 214,100	$ 192,627	$ 681	$ 4,647	$ 2,478
2018						
U.S.	$ 633	$ 72,639	$ 69,002	$ —	$ 1,945	$ 36
Asia	10,156	41,846	66,610	86	2,381	1,299
Latin America	1,984	10,170	5,961	—	119	719
EMEA	1,622	5,357	11,712	5	19	464
MetLife Holdings	4,474	72,405	30,394	586	162	192
Corporate & Other	26	1,320	14	—	—	—
Total	$18,895	$ 203,737	$ 183,693	$ 677	$ 4,626	$ 2,710

(1) Amounts are included within the future policy benefits, other policy-related balances and policyholder dividend obligation column.

(2) Includes premiums received in advance.

MetLife, Inc.

Schedule III

Consolidated Supplementary Insurance Information — (continued)
For the Years Ended December 31, 2019, 2018 and 2017

(In millions)

Segment	Premiums and Universal Life and Investment-Type Product Policy Fees	Net Investment Income	Policyholder Benefits and Claims and Interest Credited to Policyholder Account Balances	Amortization of DAC and VOBA Charged to Other Expenses	Other Expenses (1)
2019					
U.S.	$ 27,879	$ 6,821	$ 28,165	$ 475	$ 3,603
Asia	8,482	3,920	7,278	1,380	1,907
Latin America	3,817	1,262	3,210	291	1,039
EMEA	2,615	1,442	2,361	420	921
MetLife Holdings	4,960	5,140	6,842	324	2,246
Corporate & Other	85	283	69	6	2,288
Total	$ 47,838	$ 18,868	$ 47,925	$ 2,896	$ 12,004
2018					
U.S.	$ 29,239	$ 6,703	$ 29,539	$ 477	$ 3,466
Asia	8,390	3,055	6,559	1,297	1,903
Latin America	3,817	1,194	3,057	209	1,044
EMEA	2,587	(195)	772	433	909
MetLife Holdings	5,191	5,222	6,662	553	2,286
Corporate & Other	118	187	80	6	2,382
Total	$ 49,342	$ 16,166	$ 46,669	$ 2,975	$ 11,990
2017					
U.S.	$ 24,644	$ 6,201	$ 25,103	$ 459	$ 3,235
Asia	8,352	3,299	6,799	1,310	1,802
Latin America	3,737	1,288	2,973	224	1,111
EMEA	2,492	1,157	2,012	356	966
MetLife Holdings	5,603	5,426	7,097	234	2,550
Corporate & Other	(326)	(8)	(64)	98	2,507
Total	$ 44,502	$ 17,363	$ 43,920	$ 2,681	$ 12,171

(1) Includes other expenses and policyholder dividends, excluding amortization of DAC and VOBA charged to other expenses.

MetLife, Inc.

Schedule IV

Consolidated Reinsurance
December 31, 2019, 2018 and 2017

(Dollars in millions)

	Gross Amount	Ceded	Assumed	Net Amount	% Amount Assumed to Net
2019					
Life insurance in-force	$ 5,100,675	$ 488,958	$ 623,662	$ 5,235,379	11.9%
Insurance premium					
Life insurance (1)	$ 23,938	$ 1,704	$ 1,794	$ 24,028	7.5%
Accident & health insurance	14,835	523	207	14,519	1.4%
Property and casualty insurance	3,740	71	19	3,688	0.5%
Total insurance premium	$ 42,513	$ 2,298	$ 2,020	$ 42,235	4.8%
2018					
Life insurance in-force	$ 4,963,820	$ 507,589	$ 532,511	$ 4,988,742	10.7%
Insurance premium					
Life insurance (1)	$ 26,356	$ 1,792	$ 1,791	$ 26,355	6.8%
Accident & health insurance	14,166	515	212	13,863	1.5%
Property and casualty insurance	3,677	73	18	3,622	0.5%
Total insurance premium	$ 44,199	$ 2,380	$ 2,021	$ 43,840	4.6%
2017					
Life insurance in-force	$ 4,594,523	$ 513,091	$ 581,246	$ 4,662,678	12.5%
Insurance premium					
Life insurance (1)	$ 22,379	$ 1,863	$ 1,531	$ 22,047	6.9%
Accident & health insurance	13,593	442	223	13,374	1.7%
Property and casualty insurance	3,623	71	19	3,571	0.5%
Total insurance premium	$ 39,595	$ 2,376	$ 1,773	$ 38,992	4.5%

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(1) Includes annuities with life contingencies.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures as defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act. The Company has designed these controls and procedures to ensure that information the Company is required to disclose in reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and is accumulated and communicated to Company management, including the CEO and CFO as appropriate, to allow timely decisions regarding required disclosure.

Management, including the CEO and CFO, evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rule 13a-15(b) under the Exchange Act as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, the CEO and CFO concluded that the disclosure controls and procedures were effective as of December 31, 2019.

There were no changes to the Company's internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act during the quarter ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act. In fulfilling this responsibility, management's estimates and judgments must assess the expected benefits and related costs of control procedures. The Company's internal control objectives include providing management with reasonable, but not absolute, assurance that the Company has safeguarded assets against loss from unauthorized use or disposition, and that the Company has executed transactions in accordance with management's authorization and recorded them properly to permit the preparation of consolidated financial statements in conformity with GAAP.

Management evaluated the design and operating effectiveness of the Company's internal control over financial reporting based on the criteria established in the Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In the opinion of management, MetLife, Inc. maintained effective internal control over financial reporting as of December 31, 2019.

Deloitte has issued its report on its audit of the effectiveness of internal control over financial reporting, which is set forth below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of MetLife, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of MetLife, Inc. and subsidiaries (the "Company") as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Company and our report dated February 20, 2020, expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP
New York, New York
February 20, 2020

Item 9B. Other Information

None.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

The information called for by this Item pertaining to Directors is incorporated herein by reference to the sections entitled "Proxy Summary — Director Nominees' Independence, Diversity, Tenure and Experience" "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2021 Annual Meeting of Shareholders — Director Nominees" and "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2021 Annual Meeting of Shareholders — Corporate Governance — Information About the Board of Directors" and "Other Information — Delinquent Section 16(a) Reports" in MetLife, Inc.'s definitive proxy statement for the Annual Meeting of Shareholders to be held on June 16, 2020, to be filed by MetLife, Inc. with the SEC pursuant to Regulation 14A within 120 days after the year ended December 31, 2019 (the "2020 Proxy Statement").

The information called for by this Item pertaining to Executive Officers appears in "Business — Information About Our Executive Officers" in this Annual Report on Form 10-K and "Other Information — Delinquent Section 16(a) Reports" in the 2020 Proxy Statement.

The Company has adopted the MetLife Financial Management Code of Professional Conduct (the "Financial Management Code"), a "code of ethics" as defined under the rules of the SEC, that applies to MetLife, Inc.'s Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and all professionals in finance and finance-related departments. In addition, the Company has adopted the Directors' Code of Business Conduct and Ethics (the "Directors' Code") which applies to all members of MetLife, Inc.'s Board of Directors, including the Chief Executive Officer, and the Company's Code of Conduct (together with the Financial Management Code and the Directors' Code, collectively, the "Ethics Codes"), which applies to all employees of the Company, including MetLife, Inc.'s Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer. The Ethics Codes are available on the Company's website at www.metlife.com/about-us/corporate-governance/corporate-conduct/. The Company intends to satisfy any disclosure obligations under Item 5.05 of Form 8-K by posting information on the Company's website at the address given above.

Item 11. Executive Compensation

The information called for by this Item is incorporated herein by reference to the sections entitled "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2021 Annual Meeting of Shareholders — Corporate Governance — Information About the Board of Directors," "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2021 Annual Meeting of Shareholders — Director Compensation in 2019," and "Proposal 3 — Advisory Vote to Approve the Compensation Paid to the Company's Named Executive Officers" in the 2020 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information called for by this Item pertaining to ownership of shares of MetLife, Inc.'s common stock ("Shares") is incorporated herein by reference to the sections entitled "Other Information — Security Ownership of Directors and Executive Officers" and "Other Information — Security Ownership of Certain Beneficial Owners" in the 2020 Proxy Statement.

The following table provides information at December 31, 2019, regarding MetLife, Inc.'s equity compensation plans:

Equity Compensation Plan Information at December 31, 2019

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights (1) (a)		Weighted-average Exercise Price of Outstanding Options, Warrants and Rights (2) (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (3) (c)
Equity compensation plans approved by security holders	19,988,423	$	39.20	37,191,310
Equity compensation plans not approved by security holders	None		—	None
Total	19,988,423	$	39.20	37,191,310

(1) Column (a) reflects the following items outstanding as of December 31, 2019:

Stock Options	9,011,323
Restricted Stock Units	2,894,428
Performance Shares (assuming future payout at maximum performance factor)	6,905,049
Deferred Shares	1,177,623
Shares that will or may be issued	19,988,423

As of December 31, 2019:

- Stock Options under the MetLife, Inc. 2015 Stock and Incentive Compensation Plan (the "2015 Stock Plan") and its predecessor plan, the MetLife, Inc. 2005 Stock and Incentive Compensation Plan (the "2005 Stock Plan") were outstanding;
- Restricted Stock Units and Performance Shares under the 2015 Stock Plan were outstanding; and
- Deferred Shares related to awards under the 2015 Stock Plan, MetLife, Inc. 2015 Non-Management Directors Stock Compensation Plan (the "2015 Director Stock Plan"), 2005 Stock Plan, MetLife, Inc. 2005 Non-Management Directors Stock Compensation Plan (the "2005 Director Stock Plan"), and earlier plans, were outstanding. Deferred Shares are related to awards that have become payable in Shares under any plan, the issuance of which has been deferred.

The maximum performance factor for Performance Shares granted in 2015, 2016, 2017, 2018, and 2019 was 175%. The number of Performance Shares outstanding as of December 31, 2019 at target (100%) performance factor was 3,945,742.

MetLife, Inc. may issue Shares pursuant to awards (including Stock Option exercises, if any) under any plan using Shares held in treasury by MetLife, Inc. or by issuing new Shares.

For a general description of how the number of Shares paid out on account of Performance Shares and Restricted Stock Units is determined, and the vesting periods applicable to Performance Shares and Restricted Stock Units, see Note 16 of the Notes to the Consolidated Financial Statements.

(2) Column (b) reflects the weighted average exercise price of all Stock Options under any plan that, as of December 31, 2019, had been granted but not forfeited, expired, or exercised. Performance Shares, Restricted Stock Units, and Deferred Shares are not included in determining the weighted average in column (b) because they have no exercise price.

(3) Column (c) reflects the following items outstanding as of December 31, 2019:

	Number of Shares
At January 15, 2015, the effective date of the 2015 Stock Plan and 2015 Director Stock Plan:	
Shares newly authorized for issuance under the 2015 Stock Plan	11,750,000
Shares remaining authorized for issuance under the 2005 Stock Plan or other plans that were not covered by awards (i)	18,023,959
Shares authorized for issuance under the 2015 Director Stock Plan (ii)	1,642,208
Net shares added to the 2015 Stock Plan and 2015 Director Stock Plan authorizations in light of the Separation (iii)	3,979,727
Total Shares authorized for issuance at January 1, 2015 and net shares added in light of the Separation	35,395,894
Additional Shares recovered for issuance (iv) in:	
2015 - 2018	23,111,507
2019	3,422,200
Total Shares recovered for issuance since January 1, 2015	26,533,707
Less: Shares covered by new awards and new imputed reinvested dividends on Deferred Shares (v) in:	
2015 - 2018	19,502,416
2019	5,235,875
Total Shares covered by new awards and new imputed reinvested dividends on Deferred Shares since January 1, 2015	24,738,291
Shares remaining available for future issuance under the 2015 Stock Plan and 2015 Director Stock Plan	37,191,310

(i) Consists of Shares that were not covered by awards, including Shares previously covered by awards but recovered due to forfeiture of awards or other reasons and once again available for issuance.

(ii) Consists of Shares remaining authorized for issuance under the predecessor plan, the 2005 Director Stock Plan, that were not covered by awards, including Shares previously covered by awards but recovered due to forfeiture of awards or other reasons and once again available.

(iii) In light of the Separation, and in order to maintain the Share authorizations under each plan at the levels that shareholders had approved, MetLife, Inc. increased the number of Shares authorized for issuance under the 2015 Stock Plan and 2015 Director Stock Plan as of August 4, 2017, excluding those Shares from the authorizations that had already been issued, by the Adjustment Ratio. MetLife, Inc. also increased the number of Shares covered by outstanding Stock Options, Performance Shares, Restricted Stock Units, and Deferred Shares on that date by the Adjustment Ratio, in order to maintain the intrinsic value of those awards and Deferred Shares, which decreased the number of Shares available for issuance under both plans. The amount in this row is the net increase in the Share authorization under both the 2015 Stock Plan and 2015 Director Stock Plan as a result of these adjustments. For a description of the adjustment to Stock Options, Performance Shares, Restricted Stock Units, and Deferred Shares, see Note 16 of the Notes to the Consolidated Financial Statements.

(iv) Consists of Shares utilized under the 2005 Stock Plan or 2015 Stock Plan that were recovered during each of the indicated calendar years, and therefore once again available for issuance, due to: (i) termination of the award by expiration, forfeiture, cancellation, lapse, or otherwise without issuing Shares; (ii) settlement of the award in cash either in lieu of Shares or otherwise; (iii) exchange of the award for awards not involving Shares; (iv) payment of the exercise price of a Stock Option, or the tax withholding requirements with respect to an award, satisfied by tendering Shares to MetLife, Inc. (by either actual delivery or by attestation); (v) satisfaction of tax withholding requirements with respect to an award satisfied by MetLife, Inc. withholding Shares otherwise issuable; and (vi) the payout of Performance Shares at any performance factor less than the maximum performance factor.

(v) Consists of Shares covered by awards granted under the 2015 Stock Plan (including Performance Shares assuming future payout at maximum performance factor). Shares covered by awards granted under the 2015 Directors Stock Plan and Shares covered by imputed reinvested dividends credited on Deferred Shares owed to directors, employees or agents, in each case during each of the indicated calendar years.

Each Share MetLife, Inc. issues in connection with awards granted under the MetLife, Inc. 2005 Stock Plan other than Stock Options or Stock Appreciation Rights (such as Shares payable on account of Performance Shares or Restricted Stock Units under that plan, including any Deferred Shares resulting from such awards) reduces the number of Shares remaining for issuance by 1.179 ("2005 Stock Plan Share Award Ratio"). Each Share MetLife, Inc. issues in connection with a Stock Option or Stock Appreciation Right granted under the 2005 Stock Plan, or in connection with any award under any other plan for employees and agents (including any Deferred Shares resulting from such awards), reduces the number of Shares remaining for issuance by 1.0. ("Standard Award Ratio"). Shares related to awards that are recovered, and therefore authorized for issuance under the 2015 Stock Plan, are recovered with consideration of the 2005 Stock Plan Share Award Ratio and Standard Award Ratio, as applicable. Each Share MetLife, Inc. issues under the 2005 Director Stock Plan or 2015 Director Stock Plan (including any Deferred Shares resulting from such awards) reduces the number of Shares remaining for issuance under that plan by one. Shares related to awards that are recovered, and therefore authorized for issuance under the 2015 Director Stock Plan are recovered with consideration of this ratio. If MetLife, Inc. was to grant a Share-settled Stock Appreciation Right under the 2015 Stock Plan and the award holder exercised it, only the number of Shares MetLife, Inc. issued, net of the Shares tendered, if any, would be deemed delivered for purposes of determining the maximum number of Shares MetLife, Inc. may issue under the 2015 Stock Plan.

Any Shares covered by awards under the 2015 Director Stock Plan that were to be recovered due to (i) termination of the award by expiration, forfeiture, cancellation, lapse, or otherwise without issuing Shares; (ii) settlement of the award in cash either in lieu of Shares or otherwise; (iii) exchange of the award for awards not involving Shares; and (iv) payment of the exercise price of a Stock Option, or the tax withholding requirements with respect to an award, satisfied by tendering Shares to MetLife, Inc. (by either actual delivery or by attestation) would be available to be issued under the 2015 Director Stock Plan. In addition, if MetLife, Inc. was to grant a Share-settled Stock Appreciation Right under the 2015 Director Stock Plan, only the number of Shares issued, net of the Shares tendered, if any, would be deemed delivered for purposes of determining the maximum number of Shares available for issuance under the 2015 Director Stock Plan.

Under both the 2015 Stock Plan and the 2015 Director Stock Plan, in the event of a corporate event or transaction (including, but not limited to, a change in the Shares or the capitalization of MetLife) such as a merger, consolidation, reorganization, recapitalization, separation, stock dividend, extraordinary dividend, stock split, reverse stock split, split up, spin-off, or other distribution of stock or property of MetLife, combination of securities, exchange of securities, dividend in kind, or other like change in capital structure or distribution (other than normal cash dividends) to shareholders of MetLife, or any similar corporate event or transaction, the appropriate committee of the Board of Directors of MetLife, in order to prevent dilution or enlargement of participants' rights under the applicable plan, shall substitute or adjust, as applicable, the number and kind of Shares that may be issued under that plan and shall adjust the number and kind of Shares subject to outstanding awards. Any Shares related to awards under either plan which: (i) terminate by expiration, forfeiture, cancellation, or otherwise without the issuance of Shares; (ii) are settled in cash either in lieu of Shares or otherwise; or (iii) are exchanged with the appropriate committee's permission for awards not involving Shares, are available again for grant under the applicable plan. If the option price of any Stock Option granted under either plan or the tax withholding requirements with respect to any award granted under either plan is satisfied by tendering Shares to MetLife (by either actual delivery or by attestation), or if a Stock Appreciation Right is exercised, only the number of Shares issued, net of the Shares tendered, if any, will be deemed delivered for purposes of determining the maximum number of Shares available for issuance under that plan. The maximum number of Shares available for issuance under either plan shall not be reduced to reflect any dividends or dividend equivalents that are reinvested into additional Shares or credited as additional Restricted Stock or Restricted Stock Units.

For a description of the kinds of awards that have been or may be made under the 2015 Stock Plan and 2015 Director Stock Plan and awards that remained outstanding under the 2005 Stock Plan, see Note 16 of the Notes to the Consolidated Financial Statements.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information called for by this Item is incorporated herein by reference to the sections entitled "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2021 Annual Meeting of Shareholders — Corporate Governance — Procedures for Reviewing Related Person Transactions," "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2021 Annual Meeting of Shareholders — Corporate Governance — Related Person Transactions" and "Proposal 1 — Election of Directors for a One-Year Term Ending at the 2021 Annual Meeting of Shareholders — Corporate Governance — Information About the Board of Directors — Composition and Independence of the Board of Directors" in the 2020 Proxy Statement.

Item 14. Principal Accountant Fees and Services

The information called for by this item is incorporated herein by reference to the section entitled "Proposal 2 — Ratification of Appointment of the Independent Auditor" in the 2020 Proxy Statement.

Part IV

Item 15. Exhibits and Financial Statement Schedules

The following documents are filed as part of this report:

1. Financial Statements

The financial statements are listed in the Index to Consolidated Financial Statements, Notes and Schedules on page 142.

2. Financial Statement Schedules

The financial statement schedules are listed in the Index to Consolidated Financial Statements, Notes and Schedules on page 142.

3. Exhibits

The exhibits are listed in the Exhibit Index which begins on page 333.

Item 16. Form 10-K Summary

None.

Exhibit Index

***(Note Regarding Reliance on Statements in Our Contracts:** In reviewing the agreements included as exhibits to this Annual Report on Form 10-K, please remember that they are included to provide you with information regarding their terms and are not intended to provide any other factual or disclosure information about MetLife, Inc., its subsidiaries or affiliates, or the other parties to the agreements. The agreements contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties have been made solely for the benefit of the other parties to the applicable agreement and (i) should not in all instances be treated as categorical statements of fact, but rather as a way of allocating the risk to one of the parties if those statements prove to be inaccurate; (ii) have been qualified by disclosures that were made to the other party in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement; (iii) may apply standards of materiality in a way that is different from what may be viewed as material to investors; and (iv) were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement and are subject to more recent developments. Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time. Additional information about MetLife, Inc., its subsidiaries and affiliates may be found elsewhere in this Annual Report on Form 10-K and MetLife, Inc.'s other public filings, which are available without charge through the U.S. Securities and Exchange Commission website at www.sec.gov.)*

		Incorporated By Reference				
Exhibit No.	**Description**	**Form**	**File Number**	**Exhibit**	**Filing Date**	**Filed or Furnished Herewith**
2.1	Plan of Reorganization.	S-1	333-91517	2.1	November 23, 1999	
2.2	Amendment to Plan of Reorganization, dated as of March 9, 2000.	S-1/A	333-91517	2.2	March 29, 2000	
2.3	Master Separation Agreement, dated August 4, 2017, between MetLife, Inc. and Brighthouse Financial, Inc.	8-K	001-15787	2.1	August 7, 2017	
3.1.1	Amended and Restated Certificate of Incorporation of MetLife, Inc.	10-K	001-15787	3.1	March 1, 2017	
3.1.2	Certificate of Retirement of Series B Contingent Convertible Junior Participating Non-Cumulative Perpetual Preferred Stock of MetLife, Inc., filed with the Secretary of State of Delaware on November 5, 2013.	10-Q	001-15787	3.6	November 7, 2013	
3.1.3	Certificate of Amendment of Amended and Restated Certificate of Incorporation of MetLife, Inc., dated April 29, 2015.	8-K	001-15787	3.1	April 30, 2015	
3.1.4	Certificate of Designations of 5.250% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, of MetLife, Inc., filed with the Secretary of State of Delaware on May 28, 2015.	8-K	001-15787	3.1	May 28, 2015	
3.1.5	Certificate of Elimination of 6.500% Non-Cumulative Preferred Stock, Series B, of MetLife, Inc., filed with the Secretary of State of Delaware on November 3, 2015.	10-Q	001-15787	3.7	November 5, 2015	
3.1.6	Certificate of Amendment of Amended and Restated Certificate of Incorporation of MetLife, Inc., dated April 29, 2011.	10-K	001-15787	3.4	March 1, 2017	
3.1.7	Certificate of Designation, Preferences and Rights of Series A Junior Participating Preferred Stock of MetLife, Inc., filed with the Secretary of State of Delaware on April 7, 2000.	10-K	001-15787	3.2	March 1, 2017	
3.1.8	Certificate of Designations of Floating Rate Non-Cumulative Preferred Stock, Series A, of MetLife, Inc., filed with the Secretary of State of Delaware on June 10, 2005.	10-K	001-15787	3.3	March 1, 2017	
3.1.9	Certificate of Amendment of Amended and Restated Certificate of Incorporation of MetLife, Inc., dated October 23, 2017.	8-K	001-15787	3.1	October 24, 2017	
3.1.10	Certificate of Designations of 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D, of MetLife, Inc., filed with the Secretary of State of Delaware on March 21, 2018.	8-K	001-15787	3.1	March 22, 2018	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
3.1.11	Certificate of Designations of 5.625% Non-Cumulative Preferred Stock, Series E, of MetLife, Inc., filed with the Secretary of the State of Delaware on May 31, 2018.	8-K	001-15787	3.1	June 4, 2018	
3.1.12	Certificate of Designations of 4.75% Non-Cumulative Preferred Stock, Series F, of MetLife, Inc., filed with the Secretary of the State of Delaware on January 8, 2020.	8-K	001-15787	3.1	January 9, 2020	
3.2	Amended and Restated By-Laws of MetLife, Inc., effective September 25, 2018.	8-K	001-15787	3.2	October 1, 2018	
4.1	Form of Certificate for Common Stock, par value $0.01 per share.	S-1/A	333-91517	4.1	March 9, 2000	
4.2	Certificate of Designation, Preferences and Rights of Series A Junior Participating Preferred Stock of MetLife, Inc., filed with the Secretary of State of Delaware on April 7, 2000. (See Exhibit 3.1.7 above).					
4.3	Certificate of Designations of Floating Rate Non-Cumulative Preferred Stock, Series A, of MetLife, Inc., filed with the Secretary of State of Delaware on June 10, 2005. (See Exhibit 3.1.8 above).					
4.4	Form of Stock Certificate, Floating Rate Non-Cumulative Preferred Stock, Series A, of MetLife, Inc.	8-A	001-15787	99.6	June 10, 2005	
4.5	Certificate of Designations of 5.250% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, of MetLife, Inc., filed with the Secretary of State of Delaware on May 28, 2015. (See Exhibit 3.1.4 above).					
4.6	Form of Stock Certificate, 5.250% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series C, of MetLife, Inc.	8-K	001-15787	4.2	May 28, 2015	
4.7	Certificate of Amendment of Amended and Restated Certificate of Incorporation of MetLife, Inc., dated October 23, 2017. (See Exhibit 3.1.9 above).					
4.8	Certificate of Designations of 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D, of MetLife, Inc., filed with the Secretary of State of Delaware on March 21, 2018. (See Exhibit 3.1.10 above).					
4.9	Form of Stock Certificate, 5.875% Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series D, of MetLife, Inc.	8-K	001-15787	4.1	March 22, 2018	
4.10	Certificate of Designations of 5.625% Non-Cumulative Preferred Stock, Series E, of MetLife, Inc., filed with the Secretary of the State of Delaware on May 31, 2018. (See Exhibit 3.1.11 above).					
4.11	Form of Stock Certificate, 5.625% Non-Cumulative Preferred Stock, Series E, of MetLife, Inc.	8-K	001-15787	4.1	June 4, 2018	
4.12	Deposit Agreement, dated June 4, 2018, among MetLife, Inc., Computershare Inc. and Computershare Trust Company, N.A., as depositary, and the holders from time to time of the depositary receipts described therein.	8-K	001-15787	4.2	June 4, 2018	
4.13	Form of Depositary Receipt, Depositary Shares each representing a 1/1,000th interest in a share of 5.625% Non-Cumulative Preferred Stock, Series E, of MetLife, Inc.	8-K	001-15787	4.3	June 4, 2018	
4.14	Certificate of Designations of 4.75% Non-Cumulative Preferred Stock, Series F, of MetLife, Inc., filed with the Secretary of the State of Delaware on January 8, 2020. (See Exhibit 3.1.12 above).					
4.15	Form of Stock Certificate, 4.75% Non-Cumulative Preferred Stock, Series F, of MetLife, Inc.	8-K	001-15787	4.1	January 9, 2020	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
4.16	Deposit Agreement, dated January 15, 2020, among MetLife, Inc., Computershare Inc. and Computershare Trust Company, N.A., collectively, as depositary, and the holders from time to time of the depositary receipts described therein.	8-K	001-15787	4.1	January 15, 2020	
4.17	Form of Depositary Receipt, Depositary Shares each representing a 1/1,000th interest in a share of 4.75% Non-Cumulative Preferred Stock, Series F, of MetLife, Inc.	8-K	001-15787	4.3	January 15, 2020	
4.18	Description of Securities.					X
	Certain instruments defining the rights of holders of long-term debt of MetLife, Inc. and its consolidated subsidiaries are omitted pursuant to Item 601(b)(4)(iii) of Regulation S-K. MetLife, Inc. hereby agrees to furnish to the Securities and Exchange Commission, upon request, copies of such instruments.					
10.1.1	MetLife Policyholder Trust Agreement.	S-1	333-91517	10.12	November 23, 1999	
10.1.2	Amendment to MetLife Policyholder Trust Agreement.	10-K	001-15787	10.62	February 27, 2013	
10.2	Five-Year Credit Agreement, dated as of August 4, 2017 (“2017 Credit Agreement”), amending and restating the Five-Year Credit Agreement, dated as of May 30, 2014 (“2014 Credit Agreement”), among MetLife, Inc. and MetLife Funding, Inc., as borrowers, and the other parties signatory thereto (The 2017 Credit Agreement is included as Exhibit A to the Second Amendment, dated as of December 20, 2016, to the 2014 Credit Agreement).	8-K	001-15787	10.1	December 21, 2016	
10.3	Purchase Agreement by and among MetLife, Inc. and Massachusetts Mutual Life Insurance Company, dated as of February 28, 2016.	10-Q	001-15787	10.1	May 6, 2016	
10.4	Tax Separation Agreement, dated as of July 27, 2017, by and among MetLife, Inc. and its affiliates and Brighthouse Financial, Inc. and its affiliates.	8-K	001-15787	10.1	August 7, 2017	
10.5	MetLife, Inc. 2015 Non-Management Director Stock Compensation Plan, effective January 1, 2015.*	S-8	333-198141	4.1	August 14, 2014	
10.6	MetLife Non-Management Director Deferred Compensation Plan (as amended and restated, effective January 1, 2005).*	S-8	333-214710	4.1	November 18, 2016	
10.7	MetLife, Inc. Director Indemnity Plan (dated and effective July 22, 2008).*	10-K	001-15787	10.94	February 27, 2014	
10.8.1	Form of Agreement to Protect Corporate Property executed by Michel Khalaf, effective April 9, 2012.*	10-K	001-15787	10.15	February 25, 2016	
10.8.2	Form of Agreement to Protect Corporate Property executed by Ricardo A. Anzaldua, John C. R. Hele, Frans Hijkoop, and Esther Lee on May 25, 2016; Steven A. Kandarian on May 31, 2016; Steven J. Goulart on June 2, 2016; Maria M. Morris on June 8, 2016; Martin J. Lippert on July 6, 2016; Susan Podlogar, effective July 10, 2017; and Ramy Tadros, effective September 11, 2017.*	10-Q	001-15787	10.1	August 5, 2016	
10.9	MetLife Executive Severance Plan (as amended and restated, effective June 14, 2010).*	10-K	001-15787	10.1	February 27, 2015	
10.10	MetLife Performance-Based Compensation Recoupment Policy (effective as amended and restated November 1, 2017).*	8-K	001-15787	10.1	November 6, 2017	
10.11.1	MetLife, Inc. 2015 Stock and Incentive Compensation Plan, effective January 1, 2015 (the “2015 SIC Plan”).*	S-8	333-198145	4.1	August 14, 2014	
10.11.2	MetLife, Inc. 2005 Stock and Incentive Compensation Plan, effective April 15, 2005 (the “2005 SIC Plan”).*	10-K	001-15787	10.24	February 27, 2015	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.12	MetLife Annual Variable Incentive Plan (effective as amended and restated January 1, 2015).*	8-K	001-15787	10.11	December 11, 2014	
10.13.1	MetLife International Unit Option Incentive Plan (as amended and restated December 3, 2012).*	8-K	001-15787	10.11	February 15, 2013	
10.13.2	MetLife International Unit Option Incentive Plan, dated July 21, 2011 (as amended and restated effective February 23, 2011).*	10-K	001-15787	10.24	March 1, 2017	
10.14.1	Form of Stock Option Agreement under the 2005 SIC Plan effective February 11, 2013.*	8-K	001-15787	10.9	February 15, 2013	
10.14.2	Form of Stock Option Agreement (Three-Year "Cliff" Exercisability) under the 2005 SIC Plan effective February 11, 2013.*	8-K	001-15787	10.10	February 15, 2013	
10.14.3	Form of Management Stock Option Agreement under the 2005 SIC Plan effective as of April 25, 2007.*	10-K	001-15787	10.24	February 27, 2013	
10.14.4	Amendment to Stock Option Agreements under the 2005 SIC Plan effective as of April 25, 2007.*	10-K	001-15787	10.25	February 27, 2013	
10.14.5	Form of Stock Option Agreement (Ratable Exercisability in Thirds) under the 2015 SIC Plan, effective January 1, 2015 *	8-K	001-15787	10.7	December 11, 2014	
10.14.6	Form of Stock Option Agreement (Three-Year "Cliff" Exercisability) under the 2015 SIC Plan, effective January 1, 2015 *	8-K	001-15787	10.8	December 11, 2014	
10.14.7	Form of Management Stock Option Agreement under the 2005 SIC Plan effective December 15, 2009.*	10-K	001-15787	10.28	February 27, 2015	
10.14.8	Form of Stock Option Agreement (Ratable Exercisability in Thirds) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.101	February 25, 2016	
10.14.9	Form of Stock Option Agreement (Three-Year "Cliff" Exercisability) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.102	February 25, 2016	
10.15.1	Form of Unit Option Agreement under the MetLife International Unit Option Incentive Plan effective February 11, 2013.*	8-K	001-15787	10.12	February 15, 2013	
10.15.2	Form of Unit Option Agreement (Three-Year "Cliff" Exercisability) under the MetLife International Unit Option Incentive Plan, effective February 11, 2013.*	8-K	001-15787	10.13	February 15, 2013	
10.15.3	Form of Unit Option Agreement (Ratable Exercisability in Thirds) under the 2015 SIC Plan, effective January 1, 2015.*	8-K	001-15787	10.9	December 11, 2014	
10.15.4	Form of Unit Option Agreement (Three-Year "Cliff" Exercisability) under the 2015 SIC Plan, effective January 1, 2015.*	8-K	001-15787	10.10	December 11, 2014	
10.15.5	Form of Unit Option Agreement (Ratable Exercisability in Thirds) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.103	February 25, 2016	
10.15.6	Form of Unit Option Agreement (Three-Year "Cliff" Exercisability) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.104	February 25, 2016	
10.15.7	Form of Unit Option Agreement under the MetLife International Unit Option Incentive Plan effective February 23, 2011.*	10-K	001-15787	10.25	March 1, 2017	
10.16.1	Form of Restricted Stock Unit Agreement (Ratable Period of Restriction Ends in Thirds; Code Section 162(m) Goals) under the 2015 SIC Plan, effective January 1, 2015.*	8-K	001-15787	10.3	December 11, 2014	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.16.2	Form of Restricted Stock Unit Agreement (Three-Year "Cliff" Period of Restriction; No Code Section 162(m) Goals) under the 2015 SIC Plan, effective January 1, 2015.*	8-K	001-15787	10.4	December 11, 2014	
10.16.3	Form of Restricted Stock Unit Agreement (Ratable Period of Restriction Ends in Thirds; Code Section 162(m) Goals) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.97	February 25, 2016	
10.16.4	Form of Restricted Stock Unit Agreement (Three-Year "Cliff" Period of Restriction; No Code Section 162(m) Goals) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.98	February 25, 2016	
10.16.5	Form of Restricted Stock Unit Agreement (Ratable Period of Restriction Ends in Thirds) under the 2015 SIC Plan, effective February 27, 2018.*	8-K	001-15787	10.3	February 20, 2018	
10.16.6	Form of Restricted Stock Unit Agreement (Three-Year "Cliff" Period of Restriction) under the 2015 SIC Plan, effective February 27, 2018.*	8-K	001-15787	10.4	February 20, 2018	
10.17.1	Form of Restricted Unit Agreement (Ratable Period of Restriction Ends in Thirds; Code Section 162(m) Goals) under the 2015 SIC Plan, effective January 1, 2015.*	8-K	001-15787	10.5	December 11, 2014	
10.17.2	Form of Restricted Unit Agreement (Three-Year "Cliff" Period of Restriction; No Code Section 162(m) Goals under the 2015 SIC Plan, effective January 1, 2015.*	8-K	001-15787	10.6	December 11, 2014	
10.17.3	Form of Restricted Unit Agreement (Ratable Period of Restriction Ends in Thirds; Code Section 162(m) Goals) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.99	February 25, 2016	
10.17.4	Form of Restricted Unit Agreement (Three-Year "Cliff" Period of Restriction; No Code Section 162(m) Goals) under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.100	February 25, 2016	
10.17.5	Form of Restricted Unit Agreement (Ratable Period of Restriction Ends in Thirds) under the 2015 SIC Plan, effective February 27, 2018.*	8-K	001-15787	10.5	February 20, 2018	
10.17.6	Form of Restricted Unit Agreement (Three-Year "Cliff" Period of Restriction) under the 2015 SIC Plan, effective February 27, 2018.*	8-K	001-15787	10.6	February 20, 2018	
10.18.1	Form of Performance Share Agreement under the 2015 SIC Plan, effective January 1, 2015.*	8-K	001-15787	10.1	December 11, 2014	
10.18.2	Form of Performance Share Agreement under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.95	February 25, 2016	
10.18.3	Form of Performance Share Agreement under the 2015 SIC Plan, effective February 27, 2018.*	8-K	001-15787	10.1	February 20, 2018	
10.18.4	Form of Performance Share Agreement under the 2015 SIC Plan, effective January 1, 2019. *	8-K	001-15787	10.1	December 13, 2018	
10.18.5	Form of Performance Share Agreement under the 2015 SIC Plan, effective December 10, 2019.*					X
10.19.1	Form of Performance Unit Agreement under the 2015 SIC Plan, effective January 1, 2015*	8-K	001-15787	10.2	December 11, 2014	
10.19.2	Form of Performance Unit Agreement under the 2015 SIC Plan, effective January 1, 2016.*	10-K	001-15787	10.96	February 25, 2016	
10.19.3	Form of Performance Unit Agreement under the 2015 SIC Plan, effective February 27, 2018.*	8-K	001-15787	10.2	February 20, 2018	
10.19.4	Form of Performance Unit Agreement under the 2015 SIC Plan, effective January 1, 2019. *	8-K	001-15787	10.2	December 13, 2018	
10.19.5	Form of Performance Unit Agreement under the 2015 SIC Plan, effective December 10, 2019.*					X
10.20.1	Award Agreement Supplement, effective January 1, 2016.*	10-K	001-15787	10.105	February 25, 2016	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.20.2	Award Agreement Supplement, effective February 27, 2018.*	8-K	001-15787	10.7	February 20, 2018	
10.21.1	MetLife Auxiliary Pension Plan, dated August 7, 2006 (as amended and restated, effective June 30, 2006).*	10-K	001-15787	10.60	March 1, 2017	
10.21.2	MetLife Auxiliary Pension Plan, dated December 21, 2006 (amending and restating Part I thereof, effective January 1, 2007).*	10-K	001-15787	10.61	March 1, 2017	
10.21.3	MetLife Auxiliary Pension Plan, dated December 21, 2007 (amending and restating Part I thereof, effective January 1, 2008).*	10-K	001-15787	10.95	February 27, 2013	
10.21.4	Amendment #1 to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated October 24, 2008 (effective October 1, 2008).*	10-K	001-15787	10.98	February 27, 2014	
10.21.5	Amendment Number Two to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 12, 2008 (effective December 31, 2008).*	10-K	001-15787	10.99	February 27, 2014	
10.21.6	Amendment Number Three to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008) dated March 25, 2009 (effective January 1, 2009).*	10-K	001-15787	10.71	February 25, 2016	
10.21.7	Amendment Number Four to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 16, 2009 (effective January 1, 2010).*	10-K	001-15787	10.102	February 27, 2015	
10.21.8	Amendment Number Five to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 21, 2010 (effective January 1, 2010).*	10-K	001-15787	10.73	February 25, 2016	
10.21.9	Amendment Number Six to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 20, 2012 (effective January 1, 2012).*	10-K	001-15787	10.101	February 27, 2013	
10.21.10	Amendment Number Seven to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated December 27, 2013 (effective December 10, 2013).*	10-K	001-15787	10.69	March 1, 2017	
10.21.11	Amendment Number 6 to the MetLife Auxiliary Pension Plan (as amended and restated, effective January 1, 2008), dated March 5, 2018 (effective March 15, 2018).*	10-Q	001-15787	10.9	May 8, 2018	
10.21.12	Amendment Number 8 to the MetLife Auxiliary Retirement Plan (as amended and restated, effective January 1, 2008, formerly referred to as the "MetLife Auxiliary Pension Plan" until March 15, 2018), dated September 4, 2018 (effective March 15, 2018).*	10-Q	001-15787	10.2	November 8, 2018	
10.21.13	Amendment Number Nine to the MetLife Auxiliary Retirement Plan (as amended and restated, effective January 1, 2008), dated September 26, 2018 (effective January 1, 2023).*	10-Q	001-15787	10.3	November 8, 2018	
10.22.1	Alico Overseas Pension Plan, dated January 2009.*	10-K	001-15787	10.70	March 1, 2017	
10.22.2	Amendment Number One to the Alico Overseas Pension Plan (effective November 1, 2010), dated December 20, 2010.*	10-K	001-15787	10.71	March 1, 2017	
10.22.3	Amendment Number Two to the Alico Overseas Pension Plan (effective as of November 1, 2011), dated December 13, 2011.*	10-K	001-15787	10.72	March 1, 2017	
10.22.4	Amendment Number Three to the Alico Overseas Pension Plan, dated May 1, 2012 (effective January 1, 2012).*	8-K	001-15787	10.1	May 4, 2012	
10.22.5	Amendment Number Four to the Alico Overseas Pension Plan, dated June 19, 2017, effective July 1, 2017.*	10-Q	001-15787	10.6	November 6, 2017	

Exhibit No.	Description	Incorporated By Reference: Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.23	MetLife Deferred Compensation Plan For Globally Mobile Employees, effective July 31, 2014, for which Michel Khalaf became eligible July 1, 2017.*	10-Q	001-15787	10.4	November 6, 2017	
10.24.1	Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-K	001-15787	10.72	February 27, 2013	
10.24.2	Amendment 1 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated, Effective January 1, 2008).*	10-K	001-15787	10.74	February 27, 2015	
10.24.3	Amendment Number 2 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-K	001-15787	10.48	February 25, 2016	
10.24.4	Amendment Number 3 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-K	001-15787	10.75	February 27, 2013	
10.24.5	Amendment Number 4 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-K	001-15787	10.77	February 27, 2014	
10.24.6	Amendment Number 5 to the Metropolitan Life Auxiliary Savings and Investment Plan (Amended and Restated Effective January 1, 2008).*	10-Q	001-15787	10.8	May 8, 2018	
10.25.1	MetLife Deferred Compensation Plan for Officers, as amended and restated, effective November 1, 2003.*	10-K	001-15787	10.78	February 27, 2014	
10.25.2	Amendment Number One to the MetLife Deferred Compensation Plan for Officers (as amended and restated as of November 1, 2003), dated May 4, 2005.*	10-K	001-15787	10.52	February 25, 2016	
10.25.3	Amendment Number Two to the MetLife Deferred Compensation Plan for Officers (as amended and restated as of November 1, 2003, effective December 14, 2005).*	10-K	001-15787	10.53	February 25, 2016	
10.25.4	Amendment Number Three to the MetLife Deferred Compensation Plan for Officers (as amended and restated as of November 1, 2003, effective February 26, 2007).*	10-K	001-15787	10.45	March 1, 2017	
10.26.1	MetLife Leadership Deferred Compensation Plan, dated November 2, 2006 (as amended and restated, effective with respect to salary and cash incentive compensation, January 1, 2005, and with respect to stock compensation, April 15, 2005).*	10-K	001-15787	10.46	March 1, 2017	
10.26.2	Amendment Number One to the MetLife Leadership Deferred Compensation Plan, dated December 13, 2007 (effective as of December 31, 2007).*	10-K	001-15787	10.81	February 27, 2013	
10.26.3	Amendment Number Two to the MetLife Leadership Deferred Compensation Plan, dated December 11, 2008 (effective December 31, 2008).*	10-K	001-15787	10.84	February 27, 2014	
10.26.4	Amendment Number Three to the MetLife Leadership Deferred Compensation Plan, dated December 11, 2009 (effective January 1, 2010).*	10-K	001-15787	10.85	February 27, 2015	
10.26.5	Amendment Number Four to the MetLife Leadership Deferred Compensation Plan, dated December 11, 2009 (effective December 31, 2009).*	10-K	001-15787	10.86	February 27, 2015	
10.26.6	Amendment Number Five to the MetLife Leadership Deferred Compensation Plan, dated December 16, 2010 (effective January 1, 2011).*	10-K	001-15787	10.60	February 25, 2016	
10.26.7	Amendment Number Six to the MetLife Leadership Deferred Compensation Plan, dated December 27, 2011 (effective January 1, 2011).*	10-K	001-15787	10.52	March 1, 2017	
10.26.8	Amendment Number Seven to the MetLife Leadership Deferred Compensation Plan, dated December 26, 2012 (effective January 1, 2013).*	10-K	001-15787	10.53	March 1, 2017	

Exhibit No.	Description	Incorporated By Reference: Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.26.9	Amendment Number Eight to the MetLife Leadership Deferred Compensation Plan, dated December 17, 2013 (effective January 1, 2014).*	10-K	001-15787	10.54	March 1, 2017	
10.26.10	Amendment Number Nine to the MetLife Leadership Deferred Compensation Plan, dated December 30, 2014 (effective January 1, 2015).*	10-K	001-15787	10.88	February 27, 2015	
10.26.11	Amendment Number Ten to the MetLife Leadership Deferred Compensation Plan, dated September 30, 2016 (effective October 1, 2016).*	10-K	001-15787	10.56	March 1, 2017	
10.26.12	Amendment Number Eleven to the MetLife Leadership Deferred Compensation Plan, dated September 30, 2016 (effective October 1, 2016).*	10-K	001-15787	10.57	March 1, 2017	
10.26.13	Amendment Number Twelve to the MetLife Leadership Deferred Compensation Plan, dated December 19, 2017 (effective January 1, 2017 and April 1, 2017).*	10-K	001-15787	10.29.13	February 22, 2019	
10.26.14	Amendment Number Thirteen to the MetLife Leadership Deferred Compensation Plan, dated December 4, 2018 (effective January 1, 2019).*	10-K	001-15787	10.29.14	February 22, 2019	
10.27.1	MetLife Plan for Transition Assistance for Officers, dated April 21, 2014 (as amended and restated, effective April 1, 2014 (the "MPTA")).*	10-Q	001-15787	10.2	August 8, 2014	
10.27.2	Amendment Number One to the MPTA, dated December 30, 2014 (effective January 1, 2015).*	10-K	001-15787	10.111	February 27, 2015	
10.27.3	Amendment Number Two to the MPTA, dated March 30, 2016 (effective April 1, 2016).*	10-K	001-15787	10.77	March 1, 2017	
10.27.4	Amendment Number Three to the MPTA, dated June 30, 2016 (effective June 30, 2016).*	10-K	001-15787	10.78	March 1, 2017	
10.27.5	Amendment Number Four to the MPTA, dated October 24, 2016 (effective October 31, 2016).*	10-K	001-15787	10.79	March 1, 2017	
10.27.6	Amendment Number Five to the MPTA, dated November 3, 2016 (effective October 1, 2016).*	10-K	001-15787	10.80	March 1, 2017	
10.27.7	Amendment Number Six to the MPTA, dated July 20, 2017 (effective July 1, 2017).*	10-K	001-15787	10.31.7	February 22, 2019	
10.27.8	Amendment Number Seven to the MPTA, dated May 1, 2018 (effective May 1, 2018).*	10-K	001-15787	10.31.8	February 22, 2019	
10.27.9	Amendment Number Eight to the MPTA, dated September 6, 2018 (effective October 1, 2018).*	10-K	001-15787	10.31.9	February 22, 2019	
10.27.10	Amendment Number Nine to the MPTA, dated November 15, 2018 (effective October 15, 2018).*	10-K	001-15787	10.31.10	February 22, 2019	
10.27.11	Amendment Number Ten to the MPTA, dated November 15, 2018 (effective October 15, 2018).*	10-K	001-15787	10.31.11	February 22, 2019	
10.28.1	Adjustment of certain compensation terms for Michel Khalaf, effective July 1, 2012.*	10-Q	001-15787	10.2	November 7, 2012	
10.28.2	Tax Equalization Agreement dated June 10, 2015 between MetLife, Inc. and Michel Khalaf.*	10-Q	001-15787	10.1	August 6, 2015	
10.28.3	Offer Letter, dated March 25, 2009, between American Life Insurance Company and Michel Khalaf.*	10-K	001-15787	10.2	March 1, 2017	
10.28.4	Letter of Understanding, dated June 15, 2017, effective July 1, 2017, with Michel Khalaf.*	10-Q	001-15787	10.3	November 6, 2017	
10.28.5	MetLife, Inc. and Metropolitan Life Insurance Company Compensation Committee and Board of Directors Resolutions of June 13, 2017 approving Michel Khalaf's eligibility to participate in the MetLife Deferred Compensation Plan For Globally Mobile Employees.*	10-Q	001-15787	10.5	November 6, 2017	

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
10.28.6	Amendment Number 1 to Letter of Understanding, Dated February 26, 2019, Effective February 27, 2019, with Michel Khalaf *	8-K	001-15787	10.1	March 5, 2019	
10.28.7	Confirmation of End of Employment and Waiver and Release of Claims, Effective March 4, 2019, with Michel Khalaf *	8-K	001-15787	10.2	March 5, 2019	
10.29	Sign-on Payments Letter, dated May 24, 2017, effective July 10, 2017, between MetLife Group, Inc. and Susan Podlogar.*	10-Q	001-15787	10.1	November 6, 2017	
10.30	Sign-on Payments Letter, dated June 14, 2017, effective September 11, 2017, between MetLife Group, Inc. and Ramy Tadros.*	10-Q	001-15787	10.2	November 6, 2017	
10.31.1	Executive Deferred Compensation Plan for Oscar Schmidt, effective July 1, 2009.*	10-Q	001-15787	10.3	August 7, 2018	
10.31.2	Amendment Number One to the Executive Deferred Compensation Plan for Oscar Schmidt (effective July 1, 2009).*	10-Q	001-15787	10.4	August 7, 2018	
10.31.3	Amendment Number Two to the Executive Deferred Compensation Plan for Oscar Schmidt (effective July 1, 2009).*	10-Q	001-15787	10.5	August 7, 2018	
10.31.4	Amendment Number Three to the Executive Deferred Compensation Plan for Oscar Schmidt (effective July 1, 2009).*	10-Q	001-15787	10.6	August 7, 2018	
10.31.5	Settlement Agreement & General Release, dated November 19, 2013, between MetLife Group, Inc. and Oscar Schmidt.*	10-Q	001-15787	10.7	August 7, 2018	
10.31.6	Letter Agreement, dated April 25, 2018, between MetLife Inc. and Oscar Schmidt.*	10-Q	001-15787	10.8	August 7, 2018	
10.31.7	General Release And Waiver, dated April 27, 2018, between MetLife Group, Inc. and Oscar Schmidt.*	10-Q	001-15787	10.9	August 7, 2018	
10.32	Letter Agreement entered May 4, 2018 between MetLife, Inc. and John McCallion.*	8-K	001-15787	10.1	May 7, 2018	
10.33.1	Letter of Understanding, dated August 23, 2018, effective September 1, 2018, with Kishore Ponnavolu.*	10-Q	001-15787	10.1	November 8, 2018	
10.33.2	Description of Agreement between Kishore Ponnavolu and MetLife, Inc. dated April 23, 2019.*	10-Q	001-15787	10.1	November 5, 2019	
10.34	Separation Agreement and General Release, effective June 16, 2019, between MetLife, Inc. and MetLife Group, Inc. and Martin Lippert.*	8-K	001-15787	10.1	June 18, 2019	
10.35	Sign-on Payments Letter, dated August 14, 2019, effective November 19, 2019, between MetLife Group, Inc. and Bill Pappas.*					X
21.1	Subsidiaries of the Registrant.					X
23.1	Consent of Deloitte & Touche LLP.					X
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X

Exhibit No.	Description	Incorporated By Reference Form	File Number	Exhibit	Filing Date	Filed or Furnished Herewith
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data file because its XBRL tags are embedded within the Inline XBRL document.					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document.					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.					X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and included in Exhibit 101).					X

* Indicates management contracts or compensatory plans or arrangements.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

February 20, 2020

METLIFE, INC.

By /s/ Michel A. Khalaf

Name: Michel A. Khalaf

Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Cheryl W. Grisé Cheryl W. Grisé	Director	February 20, 2020
/s/ Carlos M. Gutierrez Carlos M. Gutierrez	Director	February 20, 2020
/s/ Gerald L. Hassell Gerald L. Hassell	Director	February 20, 2020
/s/ David L. Herzog David L. Herzog	Director	February 20, 2020
/s/ R. Glenn Hubbard R. Glenn Hubbard	Chairman of the Board	February 20, 2020
/s/ Edward J. Kelly, III Edward J. Kelly, III	Director	February 20, 2020
/s/ William E. Kennard William E. Kennard	Director	February 20, 2020
/s/ James M. Kilts James M. Kilts	Director	February 20, 2020
/s/ Catherine R. Kinney Catherine R. Kinney	Director	February 20, 2020
/s/ Diana L. McKenzie Diana L. McKenzie	Director	February 20, 2020
/s/ Denise M. Morrison Denise M. Morrison	Director	February 20, 2020
/s/ Mark A. Weinberger Mark A. Weinberger	Director	February 20, 2020

Signature	Title	Date
/s/ Michel A. Khalaf Michel A. Khalaf	President, Chief Executive Officer and Director (Principal Executive Officer)	February 20, 2020
/s/ John D. McCallion John D. McCallion	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 20, 2020
/s/ Tamara L. Schock Tamara L. Schock	Executive Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 20, 2020

MetLife

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