Report of the Examination of

Liberty Mutual Fire Insurance Company

Wausau, Wisconsin

As of December 31, 2018

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State of Wisconsin / OFFICE OF THE COMMISSIONER OF INSURANCE

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June 10, 2020

Honorable Mark V. Afable
Commissioner of Insurance
State of Wisconsin
125 South Webster Street
Madison, Wisconsin 53703

Commissioner:

In accordance with your instructions, a compliance examination has been made of the affairs and financial condition of:

LIBERTY MUTUAL FIRE INSURANCE COMPANY
Wausau, Wisconsin

and this report is respectfully submitted.

I. INTRODUCTION

The previous examination of Liberty Mutual Fire Insurance Company (LMFIC or the company) was conducted in 2014 as of December 31, 2013. The current examination covered the intervening period ending December 31, 2018, and included a review of such 2019 and 2020 transactions as deemed necessary to complete the examination.

The examination of the company was conducted concurrently with the examination of Liberty Mutual Group (LMG). The Massachusetts Division of Insurance (MA DOI) acted in the capacity as the lead state for the coordinated examinations. Work performed by the MA DOI was reviewed and relied on where deemed appropriate.

The examination was conducted using a risk-focused approach in accordance with the National Association of Insurance Commissioners (NAIC) *Financial Condition Examiners Handbook*. This approach sets forth guidance for planning and performing the examination of an insurance company to evaluate the financial condition, assess corporate governance, identify current and prospective risks (including those that might materially affect the financial condition, either currently or prospectively), and evaluate system controls and procedures used to mitigate those risks.

All accounts and activities of the company were considered in accordance with the risk-focused examination process. This may include assessing significant estimates made by management and evaluating management's compliance with statutory accounting principles, annual statement instructions, and Wisconsin laws and regulations. The examination does not attest to the fair presentation of the financial statements included herein. If during the course of the examination an adjustment is identified, the impact of such adjustment will be documented separately at the end of the "Financial Data" section in the area captioned "Reconciliation of Surplus per Examination."

Emphasis was placed on those areas of the company's operations accorded a high priority by the examiner-in-charge when planning the examination. Special attention was given to the action taken by the company to satisfy the recommendations and comments made in the previous examination report.

The company is annually audited by an independent public accounting firm as prescribed by s. Ins 50.05, Wis. Adm. Code. An integral part of this compliance examination was the review of the independent accountant's work papers. Based on the results of the review of these work papers, alternative or additional examination steps deemed necessary for the completion of this examination were performed. The examination work papers contain documentation concerning the alternative or additional examination steps performed during the examination.

Independent Actuary's Review

Since 1957, the company has been a participant in a reinsurance pooling agreement with LMIC and certain of its property and casualty insurance subsidiaries. The reinsurance pooling agreement is also known as the Liberty Pool. The company's net loss and loss adjustment expense reserves are the product of the reserves of the Liberty Pool and the company's participation percentage in the pool.

The MA DOI engaged a third-party consultant to review the adequacy of LMG's loss and loss adjustment expense reserves. The actuary's results were reported to the MA DOI's examiner-in-charge. As deemed appropriate, reference is made in this report to the actuary's conclusion.

Investment Review

The MA DOI engaged the same third-party consultant to perform a review of the company's invested assets portfolio as of December 31, 2018. The results of that review were reported to the MA DOI examiner-in-charge. As deemed appropriate, reference is made in this report to the findings of the review.

II. HISTORY AND PLAN OF OPERATION

The company was incorporated as the United Druggists Mutual Fire Insurance Company on October 31, 1908, under the laws of Massachusetts and commenced business on November 5, 1908. The word Druggists was deleted from its title in 1918. The present name of Liberty Mutual Fire Insurance Company was adopted on December 15, 1949. At that time, the company was a mutual insurance company affiliated with Liberty Mutual Insurance Company (LMIC) via common management and directorship.

In 2001, the company reorganized into a stock insurance company as part of a mutual holding company restructuring. As part of its reorganization, the company is now affiliated with (1) Liberty Mutual Holding Company Inc. (LMHC), a Massachusetts mutual holding company and the ultimate parent in the mutual holding company structure; (2) LMHC Massachusetts Holdings Inc. (LMHC-MA), a Massachusetts stock holding company, which is a direct, wholly owned subsidiary of LMHC; and (3) Liberty Mutual Group Inc. (LMGI), a Massachusetts stock holding company which is a direct, wholly owned subsidiary of LMHC-MA and the direct parent of the company. The company's reorganization was part of a series of transactions that resulted in the company, LMIC, and Employers Insurance Company of Wausau (EICOW) all reorganizing to stock companies under the common ownership of LMHC, thereby resulting in the policyholders of the company, LMIC, and EICOW becoming members of and having equity rights in LMHC.

On December 22, 2005, LMFIC changed its state of domicile from Massachusetts to Wisconsin. Pursuant to the Stipulation and Order in the Matter of Case No. 05-C29871 between the Office of the Commissioner of Insurance and LMFIC, LMFIC's compulsory surplus shall be the greater of $3,000,000, or 12.5% of its direct premiums written plus non-affiliated assumed premium during the previous 12 months, or 33-1/3% of net premiums written during the previous 12 months.

As of December 31, 2018, the company has authorized an outstanding 100,000 shares of common capital stock with a par value of $100.00 per share. In addition, the company has 100,000 shares authorized of Series A Preferred Stock and 1,000 shares issued and outstanding with a stated par value of $0.01 per share. All outstanding capital stock of the company is owned by LMGI, which is ultimately owned by LMHC. During the period covered by this examination, the company received no additional paid-in and contributed surplus

The company has no employees of its own. Most day-to-day operations are conducted with staff provided by LMGI and LMIC in accordance with the business practices and internal controls of those organizations. Expenses are paid by LMIC on behalf of the company, or, in some cases, directly by the company for itself. Expenses other than federal income taxes are allocated through a general expense allocation agreement. Tax allocations are established in accordance with a written consolidated federal income tax sharing agreement applicable to LMHC and certain of its direct and indirect subsidiaries. Intercompany balances with affiliates are created in the ordinary course of business with settlements generally made on a quarterly basis. Written agreements with affiliates are further described in the section of this report titled “Affiliated Companies.”

LMFIC’s operations are coordinated from its principal place of business in Boston, Massachusetts. The company owns no office buildings for the transaction of its own business. Support services are provided through a network of leased office facilities throughout the United States.

As of the examination date, the company is licensed in all 50 states, the District of Columbia, and Puerto Rico.

In 2018, the company wrote business in every jurisdiction in which it was licensed in the United States. The distribution of direct premiums written in 2018 by state or other jurisdiction was as follows:

California	$ 642,868,052	17.4%
New York	421,268,030	11.4
New Jersey	230,847,623	6.2
Texas	177,849,744	4.8
Florida	170,980,121	4.6
Massachusetts	151,227,628	4.1
North Carolina	123,321,442	3.3
Pennsylvania	122,911,546	3.3
Washington	115,201,629	3.1
Illinois	104,331,276	2.8
Wisconsin	37,393,414	1.0
All others	1,403,865,309	38.0
Total	$3,702,065,814	100.0%

In the state of Wisconsin, the company is licensed to transact the following lines of business as defined by s. Ins 6.75 (2), Wis. Adm. Code:

(a) Fire, Inland Marine, and Other Property
(b) Ocean Marine
(c) Disability
(d) Liability and Incidental Medical Expense
(e) Automobile
(f) Fidelity
(g) Surety
(k) Workers' Compensation
(l) Legal Expense
(n) Miscellaneous
(o) Aircraft

As of December 31, 2018, business was written through captive sales representatives, independent agents, and brokers. Independent agents are compensated according to the following commission schedule. Some rates are on a sliding scale that declines with the volume of premium or service revenue related to a specific policy.

Product Line	Commission Rates
Workers' Compensation	5%
General Liability	15
Auto	15
Umbrella	15
Packages	15
Other Liability	15
Other Property	15
Highly Protected Risks/Property Special Risks	15
Fidelity, Burglary & Other Crime	15
Plate Glass	10
Contract Surety Bonds	5 to 30
Other Surety and Individual and Schedule Public Official Bonds	25

Independent agents are also eligible to earn contingent commissions based on written premium growth and loss performance during a calendar year. The major products are marketed through independent agents.

The following table is a summary of the net premiums written by the company in 2018. The growth of the company is discussed in the “Financial Data” section of this report.

Line of Business	Direct Premium	Reinsurance Assumed	Reinsurance Ceded	Net Premium
Fire	$ 173,925,348	$ 55,349,511	$ 173,925,348	$ 55,349,511
Allied lines	102,144,085	41,914,848	102,144,085	41,914,848
Farmowners multiple peril		8,453,699		8,453,699
Homeowners multiple peril	839,443,387	497,215,446	839,443,387	497,215,446
Commercial multiple peril	59,154,401	173,412,683	59,154,401	173,412,683
Ocean marine	7,614,642	9,240,326	7,614,642	9,240,326
Inland marine	50,620,942	73,880,888	50,620,942	73,880,888
Medical professional liability - occurrence		7,849,569		7,849,569
Medical professional liability - claims made		8,913,398		8,913,398
Earthquake	15,299,535	6,214,780	15,299,535	6,214,780
Group accident and health		15,095,807		15,095,807
Other accident and health		398,651		398,651
Workers’ compensation	381,469,226	162,602,556	381,469,226	162,602,556
Other liability – occurrence	327,296,713	195,520,943	327,296,713	195,520,943
Other liability – claims made	6,358,832	68,298,859	6,358,832	68,298,859
Excess workers’ compensation		3,929,130		3,929,130
Products liability – occurrence	82,545,669	13,598,259	82,545,669	13,598,259
Products liability – claims made	311,629	2,233,039	311,629	2,233,039
Private passenger auto liability	735,343,212	545,038,423	735,343,212	545,038,423
Commercial auto liability	312,875,906	112,612,225	312,875,906	112,612,225
Auto physical damage	571,608,065	415,545,787	571,608,065	415,545,787
Aircraft (all perils)		6,517,485		6,517,485
Fidelity	327,025	3,471,713	327,025	3,471,713
Surety	6,720,834	70,934,908	6,720,834	70,934,908
Burglary and theft	165,200	212,575	165,200	212,575
Boiler and machinery	28,824,641	3,380,261	28,824,641	3,380,261
Credit	16,523	2,475,396	16,523	2,475,396
Reinsurance – non-proportional assumed property		26,939,362		26,939,362
Reinsurance – non-proportional assumed liability		10,316,032		10,316,032
Reinsurance – non-proportional assumed financial lines		4,910,979		4,910,979
Total All Lines	$3,702,065,815	$2,546,477,538	$3,702,065,815	$2,546,477,538

III. MANAGEMENT AND CONTROL

Board of Directors

The board of directors consists of 10 members. Directors are elected annually to serve a one-year term. Officers are elected at the board's annual meeting. Members of the company's board of directors may also be members of other boards of directors in the holding company group. No compensation specific to service on the board is received by directors who are also executives of the Liberty Mutual Group.

As of the date of this examination report, the board of directors consists of the following persons:

Name and Residence	Principal Occupation	Term Expires
Melanie M. Foley Walpole, Massachusetts	Chief Talent and Enterprise Services Officer Liberty Mutual Group Inc.	2020
Neeti B. Johnson Osterville, Massachusetts	Chief Investment Officer Liberty Mutual Group Inc.	2020
James F. Kelleher Belmont, Massachusetts	Chief Legal Officer Liberty Mutual Group Inc.	2020
Kevin H. Kelley Norwell, Massachusetts	Vice Chairman, Global Risk Solutions Liberty Mutual Group Inc.	2020
Dennis J. Langwell Boston, Massachusetts	President, Global Risk Solutions Liberty Mutual Group Inc.	2020
David H. Long Dover, Massachusetts	Chief Executive Officer Liberty Mutual Group Inc.	2020
James M. McGlennon Cambridge, Massachusetts	Chief Technology Officer Liberty Mutual Group Inc.	2020
Christopher L. Peirce North Attleboro, Massachusetts	Chief Financial Officer Liberty Mutual Group Inc.	2020
Timothy M. Sweeney Boston, Massachusetts	President, Global Retail Markets Liberty Mutual Group Inc.	2020
Mark C. Touhey Scituate, Massachusetts	Corporate Secretary and Chief of Staff to the Chief Executive Officer Liberty Mutual Group Inc.	2020

Officers of the Company

The officers serving at the time of this examination are as follows:

Name	Office	2018 Compensation[1]
David H. Long	President and Chief Executive Officer	19,262,056
J. Paul Condrin, III[2]	Executive Vice President	13,004,009
Christopher L. Peirce	Chief Financial Officer	5,789,411
Neeti B. Johnson	Chief Investment Officer	7,094,502
Timothy M. Sweeney	Executive Vice President – Global Retail Markets	6,950,550
Kevin H. Kelley	Executive Vice President - Global Risk Solutions	6,206,423
Dennis J. Langwell	Executive Vice President – Global Risk Solutions	6,019,608
Melanie M. Foley	Chief Talent & Enterprise Services Officer	3,811,156
James M. McGlennon	Chief Information Officer	3,083,574
James F. Kelleher	Chief Legal Officer	2,482,576
Laurance H. S. Yahia	Senior Vice President and Treasurer	1,495,215
Mark C. Touhey	Senior Vice President and Secretary	1,458,147
Alison B. Erbig	Senior Vice President and Comptroller	1,149,420

[1] Amount of compensation reported is the full amount the individual is paid on behalf of all Liberty Mutual entities.
[2] Mr. Condrin III retired April of 2018.

Committees of the Board

The company's bylaws permit the appointment of committees to exercise the powers of the board and the management of the business affairs of the corporation to the extent authorized by law and by board resolution, with certain named exclusions; however, the board did not appoint any committees during the examination period. Board committees appointed by the LMHC board are the following:

Audit Committee
Eric A. Spiegel, Chair
Francis A. Doyle
Thomas J. May
Nancy W. Quan
William C. Van Faasen

Executive Committee
David H. Long, Chair
John P. Manning
Myrtle S. Potter
Martin P. Slark
Eric A. Spiegel
William C. Van Faasen

Committees of the Board (continued)

Investment Committee
David H. Long, Chair
Francis A. Doyle
John P. Manning
Thomas J. May
Martin P. Slark
Eric A. Spiegel
Annette M. Verschuren

Risk Committee
Martin P. Slark, Chair
David H. Long
Myrtle S. Potter
Ellen A. Rudnick
Angel A. Ruiz
Annette M. Verschuren

Compensation Committee
Myrtle S. Potter, Chair
John P. Manning
Thomas J. May
William C. Van Faasen

Community Investments Committee
John P. Manning, Chair
David H. Long
Ellen A. Rudnick
William C. Van Faasen

Nomination and Governance Committee
William C. Van Faasen, Chair
Francis A. Doyle
Myrtle S. Potter
Ellen A. Rudnick
Angel A. Ruiz

IV. AFFILIATED COMPANIES

Liberty Mutual Fire Insurance Company is a member of a holding company system. Due to the complexity of the holding company system, an abbreviated chart of holding company relationships is presented later in this section of the examination report. The chart includes only significant affiliates and ones that directly affect the operations of LMFIC. A brief description of the significant affiliates follows the organizational chart on the next page.

LMFIC is a member of the LMG, a multinational holding company system under the control of LMHC. LMG is a diversified international group of insurance companies offering a wide range of insurance products and services to businesses and individuals operating in 30 countries, with 58 property and casualty insurers, seven insurance brokerages and agencies, and nine providers of ancillary insurance-related services. Its international businesses operate companies to provide insurance products and services to businesses and individuals in many jurisdictions, including Australia, Bermuda, Brazil, Canada, Chile, China (including Hong Kong), Colombia, Ecuador, Ireland, India, Mexico, the Netherlands, Peru, Portugal, Russia[3], Singapore, Spain, Thailand, the United Kingdom, Venezuela[4], and Vietnam. The other entities are other insurance or reinsurance companies outside the United States, holding companies, inactive, or conducting miscellaneous activities such as investment management or investment advisory services.

The size and complexity of the Liberty Mutual Group make the description of each legal entity within the holding company system impractical in the context of this examination report. Therefore, this report will confine its discussion of specific entities to the ultimate parent of the holding company system, LMHC, and other affiliates with whom the company has a significant contractual or operational relationship. Written agreements with affiliates will be described following the summary of companies.

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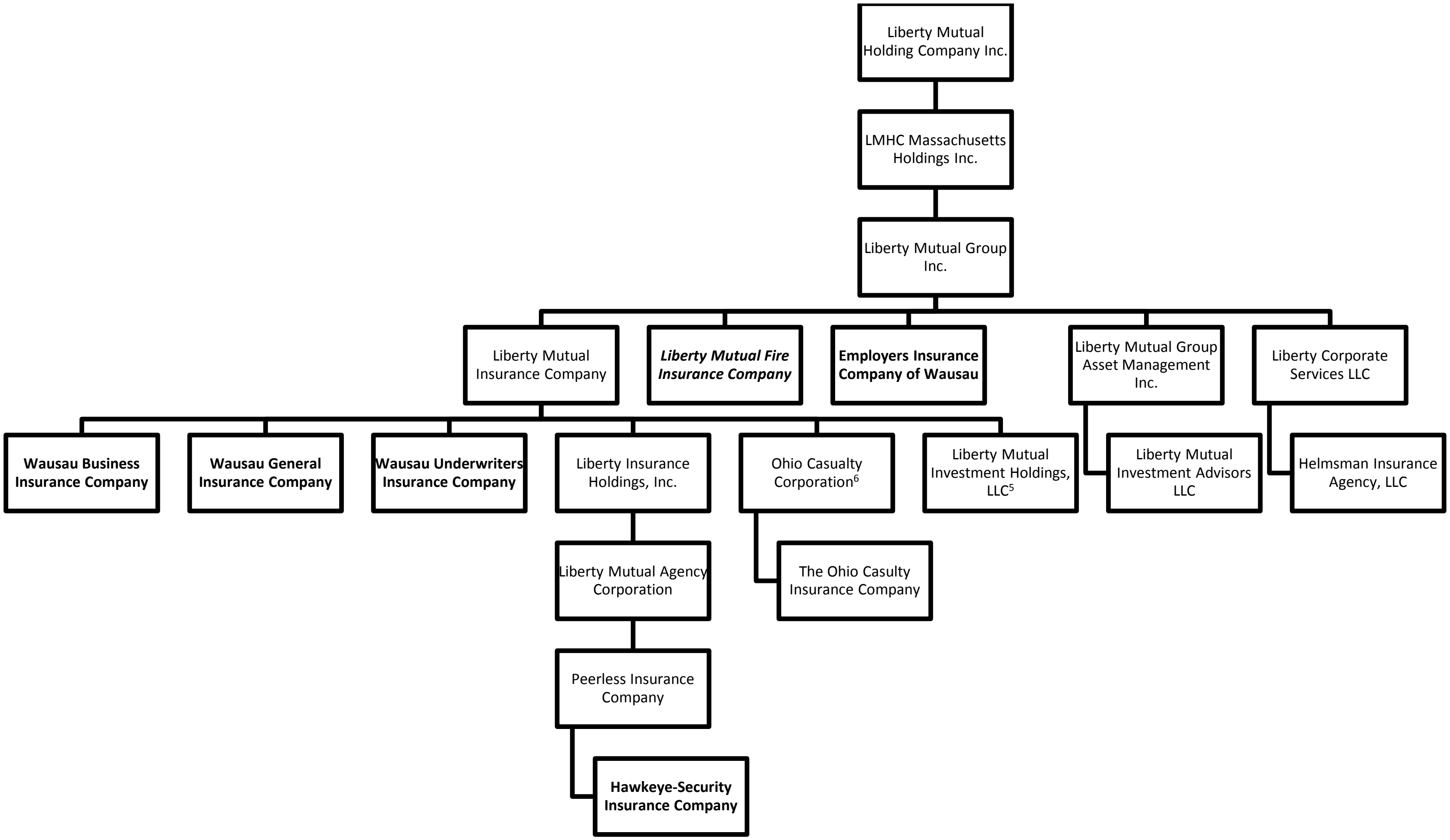
[3] Russian entity was sold in 2020.
[4] Venezuelan entities were sold in 2019.

Organizational Chart
As of December 31, 2018



[5] Liberty Mutual Investment Holdings is 40% owned by Liberty Mutual Insurance Company, 10% owned by Liberty Mutual Fire Insurance Company, 10% owned by Employers Insurance Company of Wausau, 10% owned by The Ohio Casualty Insurance Company, 22% owned by Peerless Insurance Company, 8% owned by Safeco Insurance Company of America.

[6] Ohio Casualty Corporation is 8% owned by Peerless Insurance Company, 8% owned by Employers Insurance Company of Wausau, 6% owned by Liberty Mutual Fire Insurance Company, 78% owned by Liberty Mutual Insurance Company.

Liberty Mutual Holding Company Inc.

LMHC was incorporated under the laws of the Commonwealth of Massachusetts on November 28, 2001. Headquartered in Boston, Massachusetts, LMHC serves as the ultimate controlling person for the Liberty Mutual Group. Policyholders of LMFIC, EICOW, LMIC, and Liberty Mutual Personal Insurance Company are members and have equity rights in LMHC. LMHC directly holds the stock of LMHC Massachusetts Holdings Inc., an intermediate stock holding company, which in turn directly holds the stock of LMGI. As of December 31, 2018, the audited financial statements of LMHC reported assets of $126.0 billion, liabilities of $105.2 billion, and total policyholders' equity of $20.8 billion. Operations for 2018 produced net income of $2.2 billion.

The holding group has a segment devoted to investment management of the insurers within the group. LMHC employs more than 50,000 people in approximately 800 offices worldwide and operates primarily through two independent strategic business units (SBUs): Global Retail Markets (GRM) and Global Risk Solutions (GRS).

Global Retail Markets

GRM, with $28.3 billion of revenues in 2018, is organized into the following three market segments: U.S., West, and East. The U.S. segment consists of Personal Lines and Business Lines. U.S. Personal Lines sells automobile, homeowners, and other types of property and casualty insurance coverage to individuals in the United States. These products are distributed through approximately 1,900 licensed employee sales representatives, 900 licensed telesales counselors, independent agents, third-party producers, the Internet, and sponsored affinity groups, the latter of which are a significant source of new business. U.S. Business Lines serves small commercial customers through an operating model that combines local underwriting, market knowledge, and service with the scale advantages of a national company. The West segment sells property and casualty, health, and life insurance products and services to individuals and businesses in Brazil, Colombia, Chile, Ecuador, Spain, Portugal, and Ireland. The East segment sells property and casualty, health, and life insurance products and services to individuals and businesses in Thailand, Singapore, Hong Kong, Vietnam, Malaysia, India, China, and Russia.

<u>Global Risk Solutions</u>

GRS, with $12.3 billion of revenues in 2018, offers a wide array of property, casualty, specialty, and reinsurance coverage distributed through brokers and independent agents globally. GRS is organized into the following five market segments: Liberty Specialty Markets, National Insurance, North America Specialty, Global Surety, and Other Global Risk Solutions. The Liberty Specialty Markets segment consists of GRS business outside of North America. The National Insurance segment consists of U.S. admitted property and casualty business with per policy annual premium in excess of $150,000. The North America Specialty segment consists of specialty lines and non-admitted property and casualty business in North America. The Global Surety segment provides global contract and commercial surety bonds to businesses of all sizes. The Other Global Risk Solutions segment primarily consists of internal reinsurance programs across the Liberty Mutual enterprise.

Liberty Mutual Group Inc.

LMGI was incorporated under the laws of the Commonwealth of Massachusetts on November 28, 2001. Headquartered in Boston, Massachusetts, the company serves as an intermediate stock holding company within the mutual holding company system. It directly holds the stock of LMIC, LMFIC, EICOW, and other insurance and non-insurance entities. It is the primary entity used to raise funds for the Liberty Mutual Group, primarily through the issuance of short-term and long-term debt instruments to unrelated third parties.

As of December 31, 2018, Liberty Mutual Group Inc., reported assets of $126.0 billion, liabilities of $105.2 billion, equity of $20.8 billion, and a net income attributable to LMGI of $2.2 billion.

Liberty Mutual Insurance Company

LMIC was incorporated under the laws of the Commonwealth of Massachusetts on January 1, 1912, and commenced business on July 1, 1912. Headquartered in Boston, Massachusetts, LMIC is a diversified property and casualty insurer of commercial and personal lines, with distribution through captive sales representatives, telesales counselors, third-party producers, and the internet. The company is licensed in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, the Northern Mariana Islands, Canada, and in various other foreign countries. LMIC has a 50% net participation in the Liberty Mutual Group intercompany reinsurance pooling arrangement (Liberty Pool). A detailed description of the Liberty Pool is included in Section V of this report under the caption “Affiliated Pooling Agreement – Liberty Pool.”

As of December 31, 2018, LMIC reported admitted assets of $48.8 billion, liabilities of $32.5 billion, policyholders’ surplus of $16.3 billion, and net income of $2.9 billion. LMIC was examined as of December 31, 2018, concurrently with LMFIC, and the results of that examination were expressed in a separate report issued by the Massachusetts Division of Insurance.

Employers Insurance Company of Wausau

EICOW was originally incorporated as a mutual company in the state of Wisconsin on August 21, 1911, under the name Employers Mutual Liability Insurance Company of Wisconsin. On September 1, 1979, the company changed its name to EMPLOYERS INSURANCE OF WAUSAU A Mutual Company (EICOW-Mutual).

Effective on November 22, 2001, EICOW-Mutual was restructured into a mutual holding company. Pursuant to the mutual holding company restructuring, EICOW-Mutual became a stock company, and the company was also renamed to its present name, Employers Insurance Company of Wausau, effective November 21, 2001. Thereafter, 100% of the stock of EICOW was owned by the newly formed Employers Insurance of Wausau Mutual Holding Company. Effective on March 19, 2002, Employers Insurance of Wausau Mutual Holding Company was merged into LMHC. Since that time, policyholders of EICOW have been members of LMHC.

EICOW is currently licensed in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Canada. The workers’ compensation line of business provided approximately 43.8% of direct premiums written in 2018. EICOW has an 8% net participation in the Liberty Pool.

As of December 31, 2018, EICOW reported assets of $6.4 billion, liabilities of $4.7 billion, policyholders' surplus of $1.7 billion, and a net income of $0.2 billion. EICOW was examined as of December 31, 2018, concurrently with LMFIC, and the results of that examination were expressed in a separate report.

Hawkeye-Security Insurance Company

Hawkeye-Security Insurance Company (HSIC) became affiliated with LMHC on May 10, 1999, as a result of LMIC's purchase of the company's parent, Guardian Royal Exchange Holdings, Inc. LMIC also acquired the rights to the Hawkeye-Security name, which was changed from Tower Insurance Company, Inc., to the current name on March 4, 2002. On August 15, 2003, the company was contributed to Peerless Insurance Company, where it remains a wholly owned subsidiary, and became part of the Peerless Intercompany Reinsurance Pool (Peerless Pool). Effective January 1, 2013, the Peerless Pool was terminated, and the Liberty Pool was amended to adjust pooling percentages and add a number of affiliates, including HSIC. Further discussion of the Peerless Pool is in Section V of this report captioned, "Affiliated Pooling Agreement – Liberty Pool."

HSIC is a multiline property and casualty company licensed in 13 states. The commercial multiple peril and other liability-occurrence lines of business provided approximately 36% and 34%, respectively, of direct premiums written in 2018. HSIC has a 0% net participation in the Liberty Pool.

As of December 31, 2018, HSIC reported admitted assets of $13.7 million, liabilities of $0.3 million, policyholders' surplus of $13.4 million, and a net income of $0.2 million. HSIC was examined as of December 31, 2018, concurrently with LMFIC, and the results of that examination were expressed in a separate report.

Wausau Business Insurance Company

Wausau Business Insurance Company (WBIC) was incorporated on June 30, 1987, as Westwood Insurance Company, under the laws of the state of Illinois to affect a conversion of Canners Exchange Subscribers, an Illinois reciprocal organized in 1907, to a stock company on July 1, 1987. Canners Exchange Subscribers, the predecessor to WBIC, became affiliated with

EICOW on January 1, 1983, when all the outstanding shares of its attorney-in-fact corporation, Lansing B. Warner, Inc., were purchased by Wausau Service Corporation. On September 1, 1990, the company redomiciled to Wisconsin and changed its name to that presently used.

WBIC is a multiline property and casualty company licensed in all 50 states and the District of Columbia. The other liability-occurrence line of business in Wisconsin provided 100% of direct premiums written in 2018. WBIC has a 0% net participation in the Liberty Pool. The corporation is a wholly owned subsidiary of LMIC.

As of December 31, 2018, WBIC reported admitted assets of $32.9 million, liabilities of $3.0 million, policyholders' surplus of $29.9 million, and a net income of $1.1 million. WBIC was examined as of December 31, 2018, concurrently with LMFIC, and the results of that examination were expressed in a separate report.

Wausau General Insurance Company

Wausau General Insurance Company (WGIC) was incorporated under the laws of the state of Illinois on October 10, 1972, as Illinois Employers Insurance Company of Wausau, and commenced business on November 29, 1972. On April 30, 1991, the name was changed to that presently used. WGIC redomiciled from Illinois to Wisconsin effective August 1, 1999.

WGIC is a multiline property and casualty company licensed in nine states. The homeowners line of business in Wisconsin provided 98% of direct premiums written in 2018. WGIC has a 0% net participation in the Liberty Pool. The corporation is a wholly owned subsidiary of LMIC.

As of December 31, 2018, WGIC reported admitted assets of $16.4 million, liabilities of $3.7 million, policyholders’ surplus of $12.7 million, and a net income of $0.3 million. WGIC was examined as of December 31, 2018, concurrently with LMFIC, and the results of that examination were expressed in a separate report.

Wausau Underwriters Insurance Company

Wausau Underwriters Insurance Company (WUIC) was incorporated on September 27, 1979, as Wausau Insurance Company, under the laws of the state of Wisconsin, to effectuate a change in the corporate domicile from Arkansas to Wisconsin which was consummated on January 1, 1980.

WUIC is a multiline property and casualty company licensed in all 50 states, Puerto Rico, the U.S. Virgin Islands, and the District of Columbia. A small amount of business is also conducted in various foreign jurisdictions. The private passenger auto liability and auto physical damage lines of business in New Jersey provided approximately 67% and 33%, respectively, of direct premiums written in 2018. WUIC has a 0% net participation in the Liberty Pool. The corporation is a wholly owned subsidiary of LMIC.

As of December 31, 2018, WUIC reported admitted assets of $133.0 million, liabilities of $63.0 million, policyholders' surplus of $70.0 million, and a net income of $1.6 million. WUIC was examined as of December 31, 2018, concurrently with LMFIC, and the results of that examination were expressed in a separate report.

Liberty Mutual Group Asset Management Inc.

Liberty Mutual Group Asset Management Inc. (LMGAM) was organized under the laws of the state of Delaware on April 25, 2011. LMGAM provides centralized investment management services to LMGI and its two SBUs with the primary objective of contributing to the capital growth of LMGI using a risk-controlled approach to investments in domestic and international fixed income, corporate debt, real estate, natural resources, and both private and public equities.

As of December 31, 2018, LMGAM reported assets of $34.5 million, liabilities of $34.5 million, no equity, and a net loss attributable to controlling interest of $16.0 million.

Liberty Mutual Investment Advisors LLC

Liberty Mutual Investment Advisors LLC (LMIA) was organized under the laws of the Commonwealth of Massachusetts on June 23, 1999. LMIA provides centralized investment and cash management services to LMGI. The company currently manages a few legacy, traditional private equity investments and some real estate private equity investments.

As of December 31, 2018, LMIA reported assets of $10,000, no liabilities, member equity of $10,000, and no net income.

Liberty Mutual Investment Holdings LLC

Liberty Mutual Investment Holdings LLC (LMIH) is a limited liability company organized under the laws of the state of Delaware pursuant to articles of organization dated June 27, 2006. The company commenced operations on September 6, 2006. Its principal business activity is to acquire and dispose of investments in limited partnerships and privately held companies. Headquartered in Boston, Massachusetts, the company invests in limited partnerships and other entities subject to Variable Interest Entity analysis under the Variable Interest Entity subsections of Accounting Standards Codification 810, Consolidation. Administrative services are provided by LMGAM. The current members are LMIC, Peerless Insurance Company, LMFIC, EICOW, The Ohio Casualty Insurance Company, and Safeco Insurance Company of America, with ownership percentages of 40%, 22%, 10%, 10%, 10%, and 8%, respectively.

As of December 31, 2018, LMIH reported assets of $2.8 billion, members' equity of $2.8 billion, and net income of $0.6 billion.

The Ohio Casualty Insurance Company

The Ohio Casualty Insurance Company (OCIC) was incorporated under the laws of the state of Ohio on November 6, 1919, and commenced business on March 1, 1920. The corporation is a wholly owned subsidiary of Ohio Casualty Corporation (OCC), an intermediate stock holding company within the mutual holding company system headquartered in Boston, Massachusetts. OCC is owned by LMIC, EICOW, Peerless Insurance Company, and LMFIC with percentages of 78%, 8%, 8%, and 6%, respectively. On August 24, 2007, OCC and its subsidiaries were acquired by LMIC. OCIC redomiciled from Ohio to New Hampshire effective October 1, 2012.

OCIC is currently licensed in all 50 states, the District of Columbia, Guam, and in various other foreign countries. OCIC has an 8% net participation in the Liberty Pool. It directly holds the stock of an agency and a non-insurance entity in addition to the following insurance entities: West American Insurance Company, Ohio Security Insurance Company, and American Fire and Casualty Company.

As of December 31, 2018, OCIC reported assets of $6.5 billion, liabilities of $4.7 billion, policyholders' surplus of $1.8 billion, and a net income of $0.2 billion.

Liberty Corporate Services LLC

Liberty Corporate Services LLC (LCS) was organized under the laws of the Commonwealth of Massachusetts on January 26, 1995, as Liberty Corporate Services Inc., and was converted to a limited liability company effective July 1, 2004. LCS's principal activity is as a holding company for many companies providing financial services and insurance services to the Liberty Mutual Group. LCS has officers and directors and is member managed.

As of December 31, 2018, LCS reported assets of $319.8 million, liabilities of $263.9 million, equity of $55.9 million, and a net income attributable to controlling interest of $560.1 million.

Helmsman Insurance Agency LLC

Helmsman Insurance Agency LLC (Helmsman) was organized under the laws of the Commonwealth of Massachusetts on May 1, 1967, as Helmsman Insurance Agency, Inc., and was converted to a limited liability company effective December 18, 2003. Helmsman's principal activity is as an insurance agent/broker for the Liberty Mutual Group. Helmsman has officers and directors and is manager-managed. LMFIC has had a long-term agreement with Helmsman as summarized in the following section.

As of December 31, 2018, Helmsman reported assets of $538,760, liabilities of $(54,757), member equity of $582,513, and a net income attributable to controlling interest of $11,005.

Agreements with Affiliates

In addition to common staffing and management control, the company's relationship to its affiliates is affected by various written agreements and undertakings. Reinsurance agreements are described in Section V of the report titled "Reinsurance." A summary of the other agreements and undertakings follows. Unless otherwise specified, amounts owing between the parties are to be settled within 45 days after the end of the calendar quarter.

Liberty Mutual Holding Company Inc.

Federal Tax Sharing Agreement

Effective January 1, 2002, the company entered into a Federal Tax Sharing Agreement with LMHC and all of the parties of LMGI. Under this agreement, LMHC files a consolidated U.S. federal income tax return that includes the company and other affiliates of the holding company system.

The agreement sets forth the rights and obligations of the parties to the agreement with respect to the determination and settlement of federal income tax liabilities as well as the allocation of LMGI's consolidated U.S. federal income tax liability in accordance with a rational systematic formula. The agreement provides for computation of tax, settlement of balances between affiliates, tax sharing, filing the return, audits and other adjustments, dispute resolution, and other administrative requirements.

The agreement calls for the settling of estimated federal tax payments on the 12th day of April, June, September, December, and March. Final settlement is due within 30 days of the receipt of the invoice. The agreement has provisions for members entering or departing the group and provides for successors and assigns.

Liberty Mutual Group Inc.

Revolving Loan Agreements

Effective May 8, 2012, the company entered into a Revolving Loan Agreement with LMGI. Under the agreement, LMGI may make loans to the company with a minimum principal amount of $25,000, up to, but not exceeding in aggregate, $150,000,000. The loan shall bear interest on the outstanding principal amount at a rate of interest based on LMGI's cost of funds at that time but shall not exceed the three-month LIBOR + 1.4% per annum. Loans may be borrowed, repaid, and reborrowed until the contract is terminated. Interest is payable on the last day of the applicable interest period defined as the termination date or mutually agreed period of lesser duration. The agreement may be terminated by LMGI with six months' prior notice unless mutually agreed by the parties.

Also effective May 8, 2012, the company entered into another agreement with LMGI, with similar terms to the prior revolving loan agreement. However, this agreement makes LMFIC the lender and LMGI the borrower.

Liberty Mutual Insurance Company

Cash Management Agreement

Effective January 1, 2016, the company entered into a Cash Management Agreement with LMIC. Under this agreement, LMIC manages an investment pool on behalf of participating members of LMGI, investing and reinvesting funds contributed by the members in short-term obligations of banks, corporations, and the U.S. and Canadian federal governments maturing in 365 days or less from the date of purchase. The agreement allows LMIC to jointly acquire short-term investments for the pool participants and each participant maintains a proportionate share ownership of the investments based on contributions to the account. LMIC has the authority to hold the investments on behalf of participants; sell, purchase, transfer or otherwise acquire or dispose of investments; reinvest dividends or interest earned; and collect and credit to the account all proceeds on behalf of the company and the other participants.

For services provided, LMIC receives a monthly fee based on a percentage of the average market value under U.S. GAAP of all cash and securities in the account for that month. Amounts owing between the parties are billed on a monthly basis and settled within 45 days after the end of the month. The agreement may be terminated: (i) at the end of any business day by the company upon prior written notice to LMIC; or (ii) at any time by LMIC upon 180 days' written notice to the company.

Management Services Agreement

Effective January 1, 2013, the company entered into a Management Services Agreement with LMIC. Under this agreement, LMIC is to provide all services essential to the day-to-day operation of LMFIC and any additional services required by the company as negotiated between the parties.

For services provided, the company shall reimburse LMIC for the reasonable cost of performing any of the services provided pursuant to this agreement. Charges for such services shall include direct and directly allocable expenses to the company by LMIC in conformity with customary insurance accounting practices. Either party may terminate this agreement at any time by providing 90 days' written notice. The agreement may be terminated immediately by either company if (a) LMIC fails to perform services in accordance with this agreement and such failure is not cured within 30 days, (b) there is nonpayment of costs by one party to the other, (c) either company's insurance license is suspended, revoked, or otherwise restricted, or (d) a change in control where LMIC loses majority control of LMFIC's board of directors. In the event of termination, LMIC shall continue to provide such services for up to 90 days as reasonably necessary to transfer service responsibilities to a new party.

Revolving Loan Agreements

Effective March 21, 2012, the company entered into a Revolving Loan Agreement with LMIC including similar terms to the prior revolving loan agreement with the company being the lender and LMIC the borrower. The rate of interest is not to exceed the three-month LIBOR + 1.4% per annum. This agreement may be terminated by the company with six months' prior notice unless an earlier date is mutually agreed by the parties.

Effective May 8, 2012, the company entered into another revolving loan agreement with LMIC with the identical terms to those in the March 21, 2012, agreement, where LMFIC is the lender, except this agreement allows a maximum loan amount up to, but not exceeding in aggregate, $300,000,000.

Effective May 23, 2016, the company entered into a Revolving Loan Agreement with LMIC. Under this agreement, LMIC may make loans to the company with a minimum principal of $25,000, up to, not exceeding in aggregate, $150,000,000. The loan shall bear interest on the outstanding principal amount at a rate based on LMIC's cost of funds at that time but shall not exceed the three-month LIBOR + 1.04% per annum. Loans may be borrowed, repaid and reborrowed until the contract is terminated. This agreement may be terminated by LMIC with six months' prior notice unless otherwise mutually agreed by the parties. Prior to the effective date, the company had a revolving loan agreement with LMIC similar to this revolving loan agreement.

Liberty Mutual Group Asset Management Inc.

Investment Management Agreement

Effective July 1, 2011, the company entered into an Investment Management Agreement with LMGAM. Under this agreement, LMGAM acts as the company's agent and attorney-in-fact with respect to its investment portfolio. Subject to the terms and conditions of the investment policy and guidelines (included as appendices to the agreement), LMGAM has complete day-to-day discretionary control, including the power to make acquisitions and disposals of investments and issue instructions to brokers and custodians.

For services provided, LMGAM receives a monthly fee based on a percentage of the average market value under U.S. GAAP of all cash and securities in the account for that month. Amounts owing between the parties are billed on a monthly basis and settled within 45 days after the end of the month. This agreement may be terminated by LMGAM upon 180 days' written notice to the company and terminated by the company at any time upon written notice to LMGAM. Upon termination, LMGAM shall have no further investment responsibility for assets in the company's account but shall have a reasonable time, not to exceed 90 days, to transfer assets to a custodian of the company's selection.

Liberty Mutual Investment Advisors LLC

Investment Management Agreement

Effective January 1, 2010, the company entered into an Investment Management Agreement with LMIA. Under this agreement, LMIA acts as the company's agent and attorney-in-fact with respect to the investment portfolio. Subject to the terms and conditions of the investment policy and guidelines (included as appendices to the agreement), LMIA has complete day-to-day discretionary control, including the power to make acquisitions and disposals of investments and issue instructions to brokers and custodians.

For services provided, LMIA shall receive a quarterly fee based on a percentage of the average market value under U.S. GAAP of all cash and securities in the company's account for that quarter. This agreement covers the management of the company's investments that are not being managed by LMGAM (e.g., venture capital investments). This agreement may be terminated by LMIA upon 180 days' written notice to the company and terminated by the company at any time upon written notice to LMIA. Upon termination, LMIA shall have no further investment management responsibility for assets in the company's account but shall have a reasonable time, not to exceed 90 days, to transfer assets to a custodian of the company's selection.

Helmsman Insurance Agency Inc.

Agent-Company Agreement

Effective October 31, 2003, the company entered into an Agent-Company Agreement with Helmsman Insurance Agency Inc. Under this agreement, Helmsman is authorized to execute binding insurance contracts on behalf of the company, in accordance with the written guidelines. Helmsman receives a commission for the policies written, based on a commission schedule attached to the agreement. The agreement may be terminated by either party upon 90 days' advance written notice or at any time by mutual agreement.

The agreement was amended in 2003 to include a profit-sharing program. Subject to specific eligibility requirements based on the volume of premium written, Helmsman may earn profit-sharing privileges if the Loss and LAE ratio for written business is below 82%.

V. REINSURANCE

The company's reinsurance portfolio and strategy are described below. A list of the companies that have a significant amount of reinsurance in force at the time of the examination follows. All contracts reviewed contained proper insolvency provisions. Significant treaties and other risk transfer arrangements are summarized as follows.

Affiliated Pooling Agreement – Liberty Pool

The company participates in the Amended and Restated Pooling Agreement between and among 56 U.S. domiciled affiliates under which LMIC is the pool leader (the Liberty Pool). Effective January 1, 2013, the former intercompany pool, under which Peerless Insurance Company was the pool leader (the Peerless Pool) was terminated. The former Peerless Pool members then became parties to the Liberty Pool which resulted in the addition of affiliates to the Liberty Pool and changes to the net pooling percentages for certain Liberty Pool participants. The company assumed an 8% share of the net Liberty Pool (by way of retrocession from LMIC) before and after these changes.

Effective July 1, 2017, the Liberty Pool was amended to add two new affiliated companies, Ironshore Indemnity Inc., and Ironshore Specialty Insurance Company.

With the exception of WBIC, WGIC, and WUIC, each of the Liberty Pool members, cede 100% of their underwriting activity to LMIC. WBIC, WGIC, and WUIC each cede 100% of their direct underwriting activity to EICOW. EICOW assumes and cedes premiums from certain other affiliated insurers and nonaffiliated insurers. EICOW cedes its net underwriting activity to LMIC.[7]

As the pool leader, LMIC administers most aspects of the pooled business, including placement of reinsurance with nonaffiliated insurers. After external reinsurance, LMIC distributes the net pooled business according to the participations listed below. Income and expenses related to investment operations and corporate taxes, including federal income taxes, are

[7] The separate pooling arrangement between the Wausau companies (EICOW, WBIC, WGIC and WUIC) arises out of the October 5, 1998, De-Affiliation Master Agreement with NMIC, which set forth the process for unwinding the discontinued operations of the Wausau companies from the Nationwide Pool. This process continues through the present under two separate agreements: (1) Discontinued Operations Reinsurance Agreement, effective January 1, 2002, whereby WBIC, WGIC and WUIC each cede 100% of their Discontinued Operations (pertaining to the Nationwide Pool business) to EICOW; and (2) the 100% Quota Share Reinsurance Agreement between EICOW and Nationwide Indemnity Company.

excluded from the pooled business. The table below shows the companies participating in the Pool.

Liberty Pool Participations:

	Domicile	2018 Pool %
Liberty Mutual Insurance Company	MA	50%
Peerless Insurance Company	NH	20
Employers Insurance Company of Wausau	WI	8
Liberty Mutual Fire Insurance Company	WI	8
The Ohio Casualty Insurance Company	NH	8
Safeco Insurance Company of America	NH	6
America First Insurance Company	NH	0
America First Lloyds Insurance Company	TX	0
American Fire and Casualty Company	NH	0
American Economy Insurance Company	IN	0
American States Insurance Company	IN	0
American States Insurance Company of Texas	TX	0
American States Lloyds Insurance Company	TX	0
American States Preferred Insurance Company	IN	0
Colorado Casualty Insurance Company	NH	0
Consolidated Insurance Company	IN	0
Excelsior Insurance Company	NH	0
The First Liberty Insurance Corporation	IL	0
First National Insurance Company of America	NH	0
General Insurance Company of America	NH	0
Golden Eagle Insurance Corporation	NH	0
Hawkeye-Security Insurance Company	WI	0
Insurance Company of Illinois	IL	0
Indiana Insurance Company	IN	0
Ironshore Indemnity Inc.	MN	0
Ironshore Specialty Insurance Company	AZ	0
Liberty Insurance Corporation	IL	0
Liberty Insurance Underwriters Inc.	IL	0
Liberty County Mutual Insurance Company	TX	0
Liberty Lloyds of Texas Insurance Company	TX	0
Liberty Mutual Mid-Atlantic Insurance Company	MA	0
Liberty Mutual Personal Insurance Company	MA	0
Liberty Northwest Insurance Corporation	OR	0
Liberty Personal Insurance Company	NH	0
Liberty Surplus Insurance Corporation	NH	0
LM General Insurance Company	IL	0
LM Insurance Corporation	IL	0
Mid-American Fire & Casualty Company	NH	0
Montgomery Mutual Insurance Company	MA	0
The Midwestern Indemnity Company	NH	0
National Insurance Association	IN	0
The Netherlands Insurance Company	NH	0
North Pacific Insurance Company	OR	0
Ohio Security Insurance Company	NH	0
Oregon Automobile Insurance Company	OR	0
Peerless Indemnity Insurance Company	IL	0
Safeco Insurance Company of Illinois	IL	0
Safeco Insurance Company of Indiana	IN	0
Safeco Insurance Company of Oregon	OR	0

	Domicile	2018 Pool %
Safeco Lloyds Insurance Company	TX	0
Safeco National Insurance Company	NH	0
Safeco Surplus Lines Insurance Company	NH	0
Wausau Business Insurance Company	WI	0
Wausau General Insurance Company	WI	0
Wausau Underwriters Insurance Company	WI	0
West American Insurance Company	IN	0

Effective January 1, 2013, three affiliates: Bridgefield Employers Insurance Company, Bridgefield Casualty Insurance Company, and LM Property and Casualty Insurance Company, entered into a 100% quota share agreement with LMIC. On April 1, 2014, Bridgefield Employers Insurance Company and Bridgefield Casualty Insurance Company were sold and the 100% quota share agreement with LMIC was commuted. The agreement remains in place with LM Property and Casualty Insurance Company with 0% participation in the Liberty Pool.

Corporate Reinsurance Programs.

LMIC administers corporate reinsurance programs placed with various external reinsurers on behalf of the Liberty Pool. The following is a summary of the U.S. Corporate Property Catastrophe and Adverse Development Cover with National Indemnity Company (NICO).

U.S. Corporate Property Catastrophe Program

The company has property catastrophe reinsurance coverage for its domestic business and certain specialty operations including: 1) hurricanes and earthquake reinsurance covering the United States, Canada, and the Caribbean, excluding certain reinsurance exposures; 2) aggregate excess of loss programs; 3) quota share reinsurance programs; and 4) regional catastrophe reinsurance programs. These programs are structured to meet LMG’s established tolerances under its Enterprise Risk Management Program.

The contracts are described in detail as follows:

1. Homeowners Quota Share

   This treaty provides quota share reinsurance coverage on a losses-occurring basis for domestic homeowners multiline policies, covering both property and liability. LMIC retains a 97.75% participation. This contract follows the form that any future homeowners quota share will follow.

Scope: All policies classified by the company as property and liability coverages of homeowners and earthquake written by the company's U.S. division of the Global Retail Markets Strategic Business Unit

Term: December 31, 2018 to December 31, 2020

Limits: $2,500,000,000 as respects each loss occurrence for all perils except earthquake

$1,250,000,000 as respects each loss occurrence for the peril of earthquake

As respects property coverages, $20,000,000 in loss as respects each insured location, each loss occurrence, with Allocated Loss Adjustment Expense (ALAE) payable in addition to said limit or

As respects liability coverage, $1,000,000 in loss as respect of each policy, each occurrence, with ALAE in addition to said limit; or

$1,750,000,000 in the aggregate with such aggregate limit applying separately for the 2019 Contract Year and the 2020 Contract year as respects all loss occurrences arising out of acts of terrorism during the term of this contract.

Reinsurers:

Reinsurer Name	Quota Share Percentage*
Swiss Reinsurance America	0.93%
Horseshoe Re Limited	0.56
Limestone Re Ltd.	0.27
Odyssey Re Co	0.15
Transatlantic Re Co	0.15
XL Re America	0.15
Markel Global Re Co	0.05
Total Participation	2.25%

*Rounded to the nearest hundredth. Actual placement is 2.25044%

Commissions: 36.5% of premium ceded with the exception of Limestone Re Ltd. and Horseshoe Re Limited whose cessions are 38.0% of premium ceded.

2. Property Catastrophe Excess of Loss

Florida and Gulf Property Catastrophe Excess of Loss

Scope: Business classified by the company as Global Risk Solutions (GRS) Property business including all commercial lines with losses directly resulting from Named Storms (i.e. hurricanes) and earthquakes from Florida and Gulf only. Gulf is defined as Alabama, Arkansas, Illinois, Indiana, Kentucky, Louisiana, Mississippi, Missouri, Ohio, Oklahoma, Tennessee, and Texas.

Term: August 10, 2018 – August 10, 2019

Attachment/limits: The Reinsurers shall pay up to $250,000,000 Ultimate Net Loss each and every Loss Occurrence excess of $250,000,000 Ultimate Net Loss each and every Loss Occurrence. The aggregate Ultimate Net Loss shall not exceed USD 250,000,000. This contract does not apply as respects to any Loss Occurrence for which the Company's Ultimate Net Loss exceeds $750,000,000. The company's Ultimate Net Loss for any Occurrence will be deemed to include in addition to the GRS Ultimate Net Loss, all individual losses as respects to business underwritten by GRM.

Subscribing Reinsurers:

Reinsurer Name	**Participation Percentage***
Poseidon Re Ltd.	36.53%
Validus Reinsurance, Ltd.	20.00
SCOR Global P&C SE	9.40
Axis Specialty Ltd.	8.00
Hannover Ruck SE	7.60
Markel Bermuda Ltd.	6.00
Lloyd's Syndicate 1414 – Ascot	4.60
Rubik Reinsurance Ltd.	3.47
Lloyd's Syndicate 2003 – Catlin	2.20
XL Bermuda Ltd.	1.60
Odyssey Reinsurance Company	0.60
Total Participation	100.00%

*Rounded to the nearest hundredth.

Property Catastrophe Excess of Loss (Named Storm only)

Scope: Business classified by the company as Property business including commercial lines automobile physical damage coverages and personal lines automobile physical damage with losses directly resulting from a Named Storm (i.e. hurricanes) occurring anywhere in the United States, Canada, the Caribbean, and/or Bermuda.

Term: July 1, 2019 – July 1, 2020

Attachment/limits: The Reinsurers shall pay up to $500,000,000 Ultimate Net Loss each and every Loss Occurrence excess of $500,000,000 Ultimate Net Loss each and every Loss Occurrence. The aggregate Ultimate Net Loss shall not exceed USD 500,000,000.

Reinsurers:

Reinsurer Name	Participation Percentage
Everest Reinsurance Company	17.0%
Allianz Global Corporate & Specialty SE (UK Branch)	15.0
Transatlantic Reinsurance Company	15.0
Aeolus Re (Bermuda)	10.0
General Reinsurance Corporation	10.0
Lloyd's underwriter syndicate 2001, 2003	7.2
XL Bermuda Ltd	6.0
Swiss Reinsurance America Corp	5.0
Markel Bermuda Ltd	3.0
Partner Reinsurance Company Ltd	3.0
Validus Reinsurance Ltd	3.0
Hiscox Insurance Co. (Bermuda) Ltd	2.5
Lloyd's Syndicate 0033-Hiscox	2.5
MS Amlin AG Bermuda Branch	0.8
Total Participation	100.0%

Property Catastrophe Excess of Loss (externally placed)

Scope: Business classified by the company as Property business including commercial lines automobile physical damage coverages and personal lines automobile physical damage with losses directly resulting from any one disaster, accident or loss or series of disasters, accidents or losses arising out of one event occurring anywhere in the United States, Canada, the Caribbean, and/or Bermuda.

Term: January 1, 2019 – January 1, 2020

Attachment/limits:

Attachment Point	Limit (Excess of Attachment)	Accumulated Limit in US Dollars	Placed Percentage
$1,000,000,000	$300,000,000	$1,300,000,000	23.4%

Reinsurer:

Reinsurer Name	Participation Percentage
Swiss Reinsurance America Corp	10.0%
Axis Specialty Limited	8.4
Arch Reinsurance Ltd	5.0
Total Participation	23.4%

Property Catastrophe Excess of Loss (placed with Limestone Re)

Scope: Business classified by the company as Property business including commercial lines automobile physical damage coverages and personal lines automobile physical damage with losses directly resulting from any one disaster, accident or loss or series of disasters, accidents or losses arising out of one event occurring anywhere in the United States, Canada, the Caribbean, and/or Bermuda.

Term: January 1, 2019 – January 1, 2020

Attachment/limits:

Attachment Point	Limit (Excess of Attachment)	Accumulated Limit in US Dollars	Placed Percentage*
$1,000,000,000	$300,000,000	$1,300,000,000	26.6%

Reinsurers:

Reinsurer Name	Placed Percentage*
Limestone Re Segregated Account 2019-1**	13.27%
Elementum Re Ltd.	13.33
Total Participation	26.60%

*Rounded to nearest hundredth.

**Placements that Liberty Mutual internally refers to as part of the Limestone Re program may utilize parallel placements with capital markets investors via reinsurers other than a Limestone Re Ltd. Segregated Account.

Property Catastrophe Excess of Loss (placed with Limestone Re)

Scope: Business classified by the company as Property business including commercial lines automobile physical damage coverages and personal lines automobile physical damage with losses directly resulting from any one disaster, accident or loss or series of disasters, accidents or losses arising out of one event occurring anywhere in the United States, Canada, the Caribbean, and/or Bermuda.

Term: July 1, 2019 – July 1, 2020

Attachment/limits:

Attachment Point	Limit (Excess of Attachment)	Accumulated Limit in US Dollars	Placed Percentage
$1,000,000,000	$1,300,000,000	$2,300,000,000	14.97%*

*Rounded to the nearest hundredth. Total placement is 14.972715385%

Reinsurers:

Reinsurer Name	Quota Share Percentage*
Limestone Re Segregated Account 2019-2**	8.26%
Eclipse Re Ltd. Segregated Account EC0024	3.69
Allianz Global Corp & Specialty SE (Elementum)	1.38
Artex SAC Ltd. Segregated Account Mid Ocean	0.85
Secquaero Re Vinyard (IC) Ltd.	0.40
Allianz Risk Transfer (PIMCO)	0.38
Total Participation	14.97%

*Quota Share percentages were rounded to the nearest hundredth. Actual placement is 14.972715385%

**Placements that Liberty Mutual internally refers to as part of the Limestone Re program may utilize parallel placements with capital markets investors via reinsurers other than a Limestone Re Ltd. Segregated account.

3. Property Catastrophe Cascading First-Third Excess of Loss Reinsurance contract:

This treaty is comprised of three layers: Layer 1, 2, and 3. Each layer has a reinstatement at 100% provision.

Scope: Business classified by the company as Property business including commercial lines automobile physical damage coverages and personal lines automobile physical damage with losses directly resulting from any one disaster, accident or loss or series of disasters, accidents or losses arising out of one event occurring anywhere in the United States, Canada, the Caribbean, and/or Bermuda

Term: January 1, 2019 – January 1, 2020

Attachment/limits**:**

Layer	Attachment Point	Limit (Excess of Attachment)	Accumulated Limit in US Dollars	Placed Percentage	Reinstatement
AAD*	$700,000,000	$600,000,000	$1,300,000,000		
Layer 1	600,000,000	400,000,000	1,700,000,000	32.50%	100.00%
Layer 2	600,000,000	400,000,000	2,100,000,000	32.50%	100.00
Layer 3	600,000,000	500,000,000	2,600,000,000	32.50%	100.00

*There is a $700,000,000 Single Annual Deductible that applies to all layers.

Reinsurer:

Reinsurers	Participation Percentage*		
	Layer 1	Layer 2	Layer 3
Lloyd's Underwriting Syndicate 4444; 2987; 1084 and 435	4.17%	4.17%	4.17%
SCOR Global P&C S.E	3.00	3.00	3.00
Odyssey Reinsurance Corporation	2.60	2.60	2.60
Arch Reinsurance Ltd	2.50	2.50	2.50
Hannover Ruck SE	2.40	2.40	2.40
Axis Specialty Limited	2.25	2.25	2.25
Lloyd's Underwriting Syndicate 2001; 3000 and 1686	2.15	2.15	2.15
Swiss Reinsurance America Corp	2.00	2.00	2.00
Hannover Rueck SE (Elementum Advisors Business)	1.76	1.76	1.76
Hannover Re (Bermuda) Ltd.	1.50	1.50	1.50
Renaissance Reinsurance Ltd.	1.23	1.23	1.60
Transatlantic Re Co	0.95	0.95	0.95
Munich Reinsurance America, Inc	0.94	0.94	0.94
DaVinci Reinsurance Ltd.	0.83	0.83	0.46
Hannover Rueck SE	0.69	0.69	0.69
MS Amlin AG Bermuda Branch	0.60	0.60	0.60
Aspen Bermuda Ltd.	0.50	0.50	0.50
Validus Reinsurance Insurance Corporation	0.50	0.50	0.50
Markel Bermuda Ltd	0.50	0.50	0.50
Tokio Millennium RE AG	0.40	0.40	0.40
Renaissance Re-Lloyd's Syndicate 1458	0.34	0.34	0.34
Sirius International Ins. Corp	0.25	0.25	0.25
General Reinsurance Corp	0.24	0.24	0.24
Mapfre Re Compania de Reaseguros SA	0.20	0.20	0.20
Total Participation	32.50%	32.50%	32.50%

*Rounded to the nearest hundredth.

4. Multi-Year Property Catastrophe Excess of Loss Treaty (multiple layers)

This treaty is comprised of three layers: Layer 1, 2, and 3. Each layer has a reinstatement at 100% provision.

Scope:	Business classified by the company as Property business including commercial lines automobile physical damage coverages and personal lines automobile physical damage with losses directly resulting from any one disaster, accident or loss or series of disasters, accidents or losses arising out of one event occurring anywhere in the United States, Canada, the Caribbean, and/or Bermuda.
Term:	January 1, 2019 – January 1, 2022

Attachment/limits:

Layer	Attachment Point	Limit (Excess of Attachment)	Accumulated Limit in US Dollars	Placed Percentage
Layer 1, Nationwide	$1,300,000,000	$400,000,000	$1,700,000,000	50.00%
Layer 2, Nationwide	1,700,000,000	400,000,000	2,100,000,000	50.00
Layer 3, Nationwide	2,100,000,000	500,000,000	2,600,000,000	50.00

Reinsurers:

Reinsurers	Participation Percentage		
	Layer 1	Layer 2	Layer 3
Swiss Reinsurance America Corporation	6.50%	6.50%	6.50%
XL Bermuda Ltd.	6.00	6.00	6.00
Transatlantic Reinsurance Company	5.75	5.75	2.00
Lloyd's syndicate 2003, 3000, 1686 and 2001	5.40	5.40	5.80
Partner Reinsurance Company Ltd.	5.00	5.00	5.00
Scor Global P&C S.E	3.00	3.00	3.00
Lloyd's syndicate 2987, 1084, 435, and 33	2.73	3.23	3.85
Axis Specialty Limited	2.00	2.00	2.00
Odyssey Reinsurance Company	1.90	1.90	1.90
Validus Re Ltd	1.30	1.30	2.00
Renaissance Reinsurance Ltd.	1.29	1.29	1.65
Markel Bermuda Ltd	1.15	1.15	1.15
Hannover Re (Bermuda) Ltd.	1.00	1.00	1.23
Hannover Ruckversicherungs SE	1.00	1.00	1.00
Hannover Rueck SE	1.00	1.00	1.00
Hiscox Ins Co (Bermuda) Ltd.	1.00	0.50	0.00
DaVinci Re Ltd.	0.86	0.86	0.50
Amlin Bermuda Branch of Amlin AG	0.70	0.70	0.50
Sirius International Ins. Corp.	0.60	0.60	0.60
Aspen Bermuda Ltd.	0.52	0.52	0.87
Arch Reinsurance Ltd.	0.50	0.50	0.50
Mapfre Re Compania de Reaseguros SA	0.45	0.45	0.60
Lloyd's Syndicate 1458 – RenRe	0.35	0.35	0.35
Lancashire Insurance Company Limited	0.00	0.00	2.00
Total Participation	50.00%	50.00%	50.00%

5. Shared First Event, US Other Catastrophe Loss Occurrence and Global Catastrophe Aggregate Excess of Loss Reinsurance Contract:

This contract is composed of three parts. Part I covers First Event North America CAT under the company's policies classified as Property business. Part II covers US Other CAT Loss Occurrence and the Part III, the Global CAT Aggregate Excess of Loss Reinsurance.

Scope:	Part I covers ultimate Net Loss resulting from Loss Occurrences under policies classified by the company as Property business. Part II covers policies classified by the company as Homeowners (Property and Liability), Specialty and Automobile Physical Damage. Part III covers ultimate Net Loss resulting from CAT Loss Occurrence, Other Cat Loss Occurrence, Retrocessional Loss Occurrence or International Loss Occurrences under the company's policies classified as Property Business, Retrocessional Business.
Term:	January 1, 2019 – January 1, 2020

Attachment/limits:

Part	**Attachment Point**	**Limit (Excess of Attachment)***	**Accumulated Limit in US Dollars**
Part I- First Event North America CAT Cover	$2,600,000,000	50% of $1,000,000,000	$3,600,000,000
Part II- US Other CAT Loss Occurrence Cover	1,400,000,000	50% of 400,000,000	N/A
Part III- Global CAT Aggregate Cover	2,250,000,000	100% of 900,000,000	N/A

*In no event shall the Reinsurer's liability in the aggregate during the terms of the contract exceed $900,000,000 for Parts I, II, and III.

Reinsurers:

Reinsurer Name	**Participation Percentage***
Swiss Reinsurance Company Ltd.	42.22%
Aeolus Re Ltd.	20.00
Allianz Global Corporate & Specialty SE (UK Branch	11.11
Upsilon Rfo Re Ltd.	10.00
Renaissance Reinsurance Limited	5.00
DaVinci Reinsurance Ltd.	3.33
Arch Reinsurance Ltd.	2.78
Artex SAC Limited (Clarendon Segregated Account)	0.56
Total Participation	95.00%

*Rounded to the nearest hundredth.

Adverse Development Cover - National Indemnity Company

LMIC entered into an adverse development cover with National Indemnity Company, a subsidiary of Berkshire Hathaway Inc., effective January 1, 2014, which provides coverage for LMIC's U.S. commercial workers' compensation and asbestos and environmental (A&E) exposures. Specifically, the treaty provides $6.5 billion of aggregate coverage on carried undiscounted loss and allocated loss adjustment expense reserves of $15.8 billion as of

December 31, 2013, with an attachment point of $12.5 billion on combined undiscounted workers' compensation and A&E reserves. Sub-limits are also in place, consisting of $3.1 billion on A&E and $4.5 billion on workers' compensation large deductible policy reserves. In conjunction with the treaty, Resolute Management, an affiliate of NICO, assumed the claim handling responsibility for A&E claims. LMIC retained the handling of workers' compensation claims.

In conjunction with the acquisition of Ironshore, Inc. (Ironshore) and effective May 1, 2017, LMIC entered into a combined aggregate excess of loss agreement with NICO that provided coverage for substantially all Ironshore's reserves related to losses occurring prior to January 1, 2017. This agreement is being accounted for as retroactive reinsurance. The treaty states that NICO will provide $0.9 billion of aggregate coverage on the gross losses paid by or on behalf of Ironshore less all reinsurance recoverables.

Effective November 5, 2019, LMIC entered into yet another adverse development cover with NICO. The most recent NICO agreement is discussed at the end of this report in the section captioned "Appendix—Subsequent Events."

VI. FINANCIAL DATA

The following financial statements reflect the financial condition of the company as reported to the Commissioner of Insurance in the December 31, 2018, annual statement. Adjustments made as a result of the examination are noted at the end of this section in the area captioned "Reconciliation of Surplus per Examination." Also included in this section are schedules that reflect the growth of the company, NAIC Insurance Regulatory Information System (IRIS) ratio results for the period under examination, and the compulsory and security surplus calculation.

Liberty Mutual Fire Insurance Company
Assets
As of December 31, 2018

	Assets	Nonadmitted Assets	Net Admitted Assets
Bonds	$4,629,763,962	$	$4,629,763,962
Stocks:			
Preferred stocks	855,665		855,665
Common stocks	163,154,744	567,047	162,587,697
Mortgage loans on real estate:			
First liens	185,712,410		185,712,410
Cash, cash equivalents, and short-term investments	17,603,652		17,603,652
Other invested assets	408,777,699		408,777,699
Receivables for securities	6,555,767		6,555,767
Securities lending reinvested collateral assets	133,150,169		133,150,169
Investment income due and accrued	31,878,130		31,878,130
Premiums and considerations:			
Uncollected premiums and agents' balances in course of collection	147,820,820	12,319,217	135,501,603
Deferred premiums, agents' balances, and installments booked but deferred and not yet due	574,073,462	500,664	573,572,798
Accrued retrospective premiums and contracts subject to redetermination	30,805,362	3,080,398	27,724,964
Reinsurance:			
Amounts receivable relating to uninsured plans	3,768	490	3,278
Current federal and foreign income tax recoverable and interest thereon	8,223,525		8,223,525
Net deferred tax asset	82,025,001		82,025,001
Guaranty funds receivable or on deposit	3,125,152		3,125,152
Receivable from parent, subsidiaries, and affiliates	27,626,010		27,626,010
Write-ins for other than invested assets:			
Cash surrender value life insurance	78,507,351		78,507,351
Equities and deposits in pools and associations	17,175,601		17,175,601
Amounts receivable under high deductible policies	13,965,640	75,185	13,890,455
Other assets	9,137,489	7,752,120	1,385,369
Total Assets	$6,569,941,379	$24,295,121	$6,545,646,258

Liberty Mutual Fire Insurance Company
Liabilities, Surplus, and Other Funds
As of December 31, 2018

Losses		$2,677,185,459
Reinsurance payable on paid loss and loss adjustment expenses		7,097,791
Loss adjustment expenses		549,248,034
Commissions payable, contingent commissions, and other similar charges		51,722,929
Other expenses (excluding taxes, licenses, and fees)		75,496,563
Taxes, licenses, and fees (excluding federal and foreign income taxes)		21,801,962
Borrowed money and interest thereon		150,505,042
Unearned premiums		1,256,228,712
Advance premium		7,954,557
Dividends declared and unpaid:		
Policyholders		177,845
Amounts withheld or retained by company for account of others		5,144,528
Payable to parent, subsidiaries, and affiliates		1,062,113
Payable for securities		76,482,864
Payable for securities lending		133,150,169
Write-ins for liabilities:		
Other liabilities		57,979,782
Amounts held under uninsured plans		43,504,342
Retroactive reinsurance reserves		(254,134,166)
Total Liabilities		4,860,608,526
Write-ins for special surplus funds:		
Special surplus from retroactive reinsurance	$ 6,897,373	
Common capital stock	10,000,000	
Write-ins for other than special surplus funds:		
Guaranty funds	1,250,000	
Gross paid in and contributed surplus	510,000,000	
Unassigned funds (surplus)	1,156,890,359	
Surplus as Regards Policyholders		1,685,037,732
Total Liabilities and Surplus		$6,545,646,258

Liberty Mutual Fire Insurance Company
Summary of Operations
For the Year 2018

Underwriting Income		
Premiums earned		$2,486,141,557
Deductions:		
Losses incurred	$1,436,049,835	
Loss adjustment expenses incurred	304,209,314	
Other underwriting expenses incurred	736,214,619	
Total underwriting deductions		2,476,473,768
Net underwriting gain (loss)		9,667,789
Investment Income		
Net investment income earned	394,869,046	
Net realized capital gains (losses)	25,219,064	
Net investment gain (loss)		420,088,110
Other Income		
Net gain (loss) from agents' or premium balances charged off	(8,207,290)	
Finance and service charges not included in premiums	16,142,648	
Write-ins for miscellaneous income:		
Other income/ (expense)	435,123	
Retroactive reinsurance gain/(loss)	(35,419,431)	
Total other income		(27,048,950)
Net income (loss) before dividends to policyholders and before federal and foreign income taxes		402,706,949
Dividends to policyholders		1,315,293
Net income (loss) after dividends to policyholders but before federal and foreign income taxes		401,391,656
Federal and foreign income taxes incurred		(6,013,347)
Net Income		$ 407,405,003

Liberty Mutual Fire Insurance Company
Cash Flow
For the Year 2018

Premiums collected net of reinsurance			$2,522,133,946
Net investment income			399,717,273
Miscellaneous income			(28,508,808)
Total			2,893,342,411
Benefit- and loss-related payments		$1,374,991,814	
Commissions, expenses paid, and aggregate write-ins for deductions		998,692,011	
Dividends paid to policyholders		1,292,252	
Federal and foreign income taxes paid (recovered)		24,125,046	
Total deductions			2,399,101,123
Net cash from operations			494,241,288
Proceeds from investments sold, matured, or repaid:			
Bonds	$3,977,467,630		
Stocks	135,097,226		
Mortgage loans	12,909,139		
Other invested assets	463,690,235		
Net gains (losses) on cash, cash equivalents, and short-term investments	(245,318)		
Miscellaneous proceeds	(4,456,039)		
Total investment proceeds		4,584,462,873	
Cost of investments acquired (long-term only):			
Bonds	4,528,337,264		
Stocks	30,482,893		
Mortgage loans	36,111,048		
Other invested assets	467,512,641		
Miscellaneous applications	(32,134,439)		
Total investments acquired		5,030,309,407	
Net cash from investments			(445,846,534)
Cash from financing and miscellaneous sources:			
Dividends to stockholders		15,000,000	
Other cash provided (applied)		(147,253,060)	
Net cash from financing and miscellaneous sources			(162,253,060)
Reconciliation:			
Net Change in Cash, Cash Equivalents, and Short-Term Investments			(113,858,306)
Cash, cash equivalents, and short-term investments:			
Beginning of year			131,461,958
End of Year			$ 17,603,652

Liberty Mutual Fire Insurance Company
Compulsory and Security Surplus Calculation
December 31, 2018

Assets		$6,545,646,258
Less security surplus of insurance subsidiaries		33,999,193
Less reserve discounting[8]		36,709,862
Less liabilities		4,860,608,526
Adjusted surplus		1,614,328,677
Annual premium:		
Net premium written	$2,546,477,538	
Less dividends	1,315,293	
Subtotal	2,545,162,245	
Factor	33.33%	
Total	848,302,576	
Direct premium written	3,702,065,815	
Factor	12.5%	
Total	462,758,227	
Compulsory surplus[9]		848,302,576
Compulsory Surplus Excess (Deficit)		$ 766,026,101
Adjusted surplus (from above)		$1,614,328,677
Security surplus (140% of compulsory surplus, factor reduced 1% for each $33 million in premium written in excess of $10 million, with a minimum factor of 110%)		933,132,834
Security Surplus Excess (Deficit)		$ 681,195,843

[8] Reserve discounting includes 6% share of insurance subsidiaries reserve discount.
[9] Pursuant to the Stipulation and Order No. 05-C29871, LMFIC's compulsory surplus shall be the greater of $3,000,000, or 12.5% of its direct premiums written plus non-affiliated assumed premium during the previous 12 months, or 33-1/3% of net premiums written during the previous 12 months.

The calculation above was re-performed as part of the examination and represents the corrected calculation. The company's 2018 year-end filing incorrectly reported assets and liabilities from June 30, 2017, and direct written premium from September 30, 2018. In addition, the company did not include the company's share of the insurance subsidiary's reserve discount. These resulted in an increase of approximately $188 million each in adjusted compulsory surplus excess and security surplus excess. See the "Summary of Current Examination Results" for more information.

Liberty Mutual Fire Insurance Company
Analysis of Surplus
For the Five-Year Period Ending December 31, 2018

The following schedule details items affecting surplus during the period under examination as reported by the company in its filed annual statements:

	2018	2017	2016	2015	2014
Surplus, beginning of year	$1,412,787,574	$1,474,581,013	$1,398,990,964	$1,302,113,488	$1,216,296,019
Net income	407,405,003	(30,983,267)	36,205,315	252,083,418	132,173,948
Change in net unrealized capital gains/losses	(76,596,400)	19,065,151	37,159,281	(87,818,913)	18,633,743
Change in net unrealized foreign exchange capital gains/losses	(7,583,653)	11,939,175	1,263,458	(13,041,409)	(9,186,204)
Change in net deferred income tax	(33,894,878)	(45,195,300)	16,473,145	(39,682,700)	(30,242,942)
Change in nonadmitted assets	(2,079,914)	(1,619,198)	(511,150)	337,080	4,183,355
Dividends to stockholders	(15,000,000)	(15,000,000)	(15,000,000)	(15,000,000)	(26,531,250)
Other changes in surplus					(3,213,181)
Surplus, End of Year	$1,685,037,732	$1,412,787,574	$1,474,581,013	$1,398,990,964	$1,302,113,488

Liberty Mutual Fire Insurance Company
Insurance Regulatory Information System
For the Five-Year Period Ending December 31, 2018

The company's NAIC Insurance Regulatory Information System (IRIS) results for the period under examination are summarized below. Unusual IRIS results are denoted with asterisks and discussed below the table.

	Ratio	2018	2017	2016	2015	2014
#1	Gross Premium to Surplus	371%	447%	442%	489%	561%
#2	Net Premium to Surplus	151	162	144	147	156
#3	Change in Net Premiums Written	11	8	3	1	-6
#4	Surplus Aid to Surplus	0	0	0	0	0
#5	Two-Year Overall Operating Ratio	94	99	93	92	94
#6	Investment Yield	8.0*	2.8*	2.8*	3.5	3.5
#7	Gross Change in Surplus	19	-4	5	7	7
#8	Change in Adjusted Surplus	19	-4	5	7	7
#9	Liabilities to Liquid Assets	90	102*	96	94	97
#10	Agents' Balances to Surplus	8	9	7	8	8
#11	One-Year Reserve Development to Surplus	-4	5	1	-1	-0
#12	Two-Year Reserve Development to Surplus	2	5	-1	-1	6
#13	Estimated Current Reserve Deficiency to Surplus	12	-8	4	5	45*

Ratio No. 6 measures the company's investment yield. The ratio was exceptional in 2016 and 2017 as the company's investment yield was below 3%. In 2018, the ratio was exceptional as the company's investment yield was above 5.5%. In general, investment returns have been depressed over the past decade due to the persistently low interest rate environment. This issue was exacerbated in both 2016 and 2017, when the company's investment in affiliate, LMIH, paid no and significantly less dividend than in previous years, respectively. The company triggered the ratio in 2018 as it reported unusually high investment income stemming from a one-time dividend of and sale of an affiliate, Liberty Life Assurance Company of Boston.

Ratio No. 9 measures the company's liabilities to liquid assets. This ratio was exceptional in 2017 primarily driven by higher catastrophe losses due to Hurricanes Harvey, Irma, and Maria, the California wildfires, and hailstorms in Texas and Colorado.

Ratio No. 13 measures the current reserve deficiency to surplus based on the average of the two previous years. This ratio can be distorted by significant changes in premium volume. The exceptional ratio in 2014 resulted from significant changes in prior years' premiums and reserves. The changes in reserves and premiums were driven by the formation of the Liberty Mutual Second Amended and Restated Intercompany Reinsurance Agreement. This created a new pool in 2013 when participants of the Peerless Amended and Restated Reinsurance Pooling Agreement were added to the Liberty Mutual Intercompany Reinsurance Agreement. As a result, LMFIC's participation in the Liberty Pool decreased from 12.90% to 8.00%.

Growth of Liberty Mutual Fire Insurance Company

Year	Admitted Assets	Liabilities	Surplus as Regards Policyholders	Net Income
2018	$6,545,646,258	$4,860,608,526	$1,685,037,732	$407,405,003
2017	6,038,929,326	4,626,141,753	1,412,787,575	(30,983,267)
2016	5,650,731,746	4,176,150,733	1,474,581,013	36,205,315
2015	5,477,772,126	4,078,781,163	1,398,990,964	252,083,418
2014	5,297,887,108	3,995,773,620	1,302,113,488	132,173,948
2013	5,561,558,829	4,345,262,810	1,216,296,019	87,506,828

Year	Gross Premium Written	Net Premium Written	Premium Earned	Loss and LAE Ratio	Expense Ratio	Combined Ratio
2018	$6,248,543,353	$2,546,477,538	$2,486,141,557	70.0%	29.2%	99.2%
2017	6,310,043,316	2,284,016,929	2,200,796,874	79.5	29.0	108.5
2016	6,514,384,427	2,119,909,226	2,064,977,741	69.8	32.0	101.8
2015	6,838,924,275	2,050,574,054	1,997,025,453	68.4	30.2	98.6
2014	7,304,703,612	2,030,145,953	1,971,402,330	70.0	31.0	101.0
2013	7,800,286,428	2,163,509,622	1,948,596,324	73.5	29.0	102.5

Assets and liabilities decreased in 2014 primarily due to the company entering into a combined aggregate excess of loss agreement with National Indemnity Company for workers' compensation and asbestos and environmental liabilities effective January 1, 2014, and LMIC's sale of two insurance subsidiaries, Bridgefield Employers Insurance Company and Bridgefield Casualty Insurance Company, which ceded to the Liberty Pool. In 2017, surplus decreased due to losses from hurricanes, wildfires, and hailstorms and the increased reserve development, discussed previously.

Net investment income has generally been sufficient to offset net underwriting losses. In 2018, LMFIC reported significant net income due to unusually large dividends resulting from the sale of an affiliate, Liberty Life Assurance Company of Boston, and an investment held by LMIH.

Liberty Mutual has been shifting direct premium written from LMFIC to other affiliates resulting in decreasing gross premium written. In the past two years, net premium written increased due to rate increases in private passenger auto, homeowners, and specialty lines and the Ironshore acquisition effective July 1, 2017.

During the period under examination, the expense ratio remained within a relatively narrow range, between 29% and 32%. In 2016, the expense ratio experienced a modest 1.8-point increase, in part, due to an increase in pension contributions. In 2017, the expense ratio experienced a three-point decrease, in part, due to lower employee related costs.

Reconciliation of Surplus per Examination

No adjustments were made to surplus as a result of the examination. The amount of surplus reported by the company as of December 31, 2018, is accepted.

Examination Reclassifications

The following schedule includes material examination reclassifications. Reclassifications shown on this page are discussed in the "Summary of Examination Results" section of this report.

	Debit	**Credit**
Other invested assets (Schedule BA)	$100,942,000	
Mortgage loans on real estate: First liens (Schedule B)		$100,942,000

VII. SUMMARY OF EXAMINATION RESULTS

Compliance with Prior Examination Report Recommendations

There were two specific comments and recommendations in the previous examination report. Comments and recommendations contained in the last examination report and actions taken by the company are as follows:

1. Report on Executive Compensation—It is again recommended that the company include all the required officers and their compensation in the Report on Executive Compensation in accordance with ss. 601.42 and 611.63 (4), Wis. Stat. It is further recommended that the company identify all officers and employees who perform work on behalf of the company and who make in excess of the reporting threshold for all companies in the holding company group as determined by the Report on Executive Compensation (Form OCI 22-050).

   Action—Compliance

2. Report on Compulsory and Security Surplus—It is recommended that the company establish procedures for the accurate completion and filing of the Wisconsin Compulsory and Security Surplus Calculation (Form OCI 22-008).

   Action—Noncompliance; see comments in the "Summary of Current Examination Results."

Summary of Current Examination Results

This section contains comments and elaboration on those areas where adverse findings were noted or where unusual situations existed. Comment on the remaining areas of the company's operations is contained in the examination work papers.

Board of Directors Meetings

Article III, Section 4 of the company's current bylaws state that the "*Meetings of the Directors shall be held...at least four times in each year as shall be fixed from time to time by the Chief Executive Officer*." Article III, Section 14 further states that "*any action without a meeting of the Board shall be limited to situations where time is of the essence and not in lieu of regularly scheduled meetings*." During the examiners' review of the board meeting minutes during the examination period, it was noted that the company only met three times in 2018. It is recommended that the company either comply with Article III, Section 4 of its bylaws and hold at least four board meetings each year or amend its bylaws as necessary to reflect its intended practices of corporate governance regarding board meetings.

Executive Compensation

The company filed its Report on Executive Compensation as required by ss. 601.42 and 611.63 (4), Wis. Stat. The report requires that:

> Compensation reported shall consist of any and all gross direct and indirect remuneration paid and accrued during the report year for the benefit of an individual director, officer, or manager, and shall include wages, stock grants, gains from the exercise of stock options, and all other forms of personal compensation (including employer-paid health, life and any other premiums).

During the examination teams' review of executive compensation, it was noted that the company did not include the amounts paid for employer-paid health insurance coverage or the employer contributions to the executives' health savings accounts in the "All Other Compensation" column of the 2018 Report on Executive Compensation filed with OCI in early 2019. It is recommended that the company report compensation in accordance with the instructions on the Report of Executive Compensation per ss. 601.42 and 611.62 (4), Wis. Stat.

Report on Compulsory and Security Surplus

The company filed its Compulsory and Security Surplus Calculation (Form OCI 22-008) as required by s. Ins 51.80 (9), Wis. Adm. Code. The calculation was re-performed as part of the examination and it was noted that the amounts of assets, liabilities, and net written premium did not tie to the amount reported in the 2018 annual statement. In addition, the company did not include their share of the insurance subsidiary's reserve discount. These incorrect amounts resulted in an increase of approximately $188 million in both compulsory surplus excess and security surplus excess. It is again recommended that the company establish procedures for the accurate completion and filing of the Wisconsin Compulsory and Security Surplus Calculation.

Reporting of Commercial Mortgage Loans Agreements

During the examination, it was noted that certain insurers of LMG, including LMFIC, were participants in three separate commercial mortgage loan agreements with Prudential, MetLife, and Morgan Stanley. LMFIC had been reporting the three loan agreements as first lien mortgage loans on real estate on Schedule B. SSAP 37 defines the following types of participation agreements that qualify for inclusion on Schedule B:

a. Reporting entity is a "participant" in a single mortgage loan agreement that identifies more than one lender (which includes the reporting entity) providing funds to a sole borrower with the real estate collateral securing all lenders identified in the agreement. For these agreements, each lender is incorporated directly into the loan documents. The key differentiating characteristic of a mortgage loan provided under a group "mortgage loan participation agreement" rather than a solely owned mortgage loan is that no one lender of the lending group may unilaterally foreclose on the mortgage. With these agreements, the lenders must foreclose on the mortgage loan as a group

b. Reporting entity has a "participation agreement" to invest in mortgages issued by another entity. Although the reporting entity is not named on the original mortgage loan agreement, the original issuer sells a portion of the mortgage loan to an incoming participant lender (co-lender) and the sale is documented by an assignment or participation agreement between the selling lender and the co-lender. With these agreements, the co-lender acquires an undivided participation interest in the loan and will receive direct interest in the amount of their participation in the right to repayment of the loan and the collateral given to secure the loan. The financial rights and obligations of the lenders in these agreements shall be similar to those in a direct loan.

The examination noted that LMFIC is not named as a co-lender or lender of record and the participation agreement does not give LMFIC all of the same financial rights equivalent to those of a direct lender or co-lender of record. As a result, the threshold for qualifying for accounting treatment under SSAP 37 Mortgage Loans has not been met for these investments for being reported on Schedule B. Rather, they should be reported on Schedule BA as an Unaffiliated Fixed and Variable Interest Rate Investment that have the Underlying Characteristics of Mortgage Loans, Unaffiliated. It is recommended that the company reclassify the Prudential, MetLife, and Morgan Stanley participating commercial mortgage loan investments from Schedule B to Schedule BA under the Schedule BA line Fixed and Variable Interest Rate Investment that have the Underlying Characteristics of Mortgage Loans, Unaffiliated. It is further recommended that the company implement controls to evaluate new transactions/contracts at their inception and clearly document the rationale and support for their conclusion on the accounting and reporting treatment.

Reporting of Reinsurance Balances

The company participates in an intercompany pooling reinsurance agreement (Liberty Pool) whereby assumed external reinsurance activity for certain members is ceded to LMIC, the lead pool member. The activity is then retroceded to the Liberty Pool participants based on the pooling percentage. LMG’s reinsurance accounting practice is to record external assumed reinsurance on a net basis directly to the lead pool member company (LMIC) for certain companies that participate in the Liberty Pool.

As a result, certain Liberty Pool participants (other than LMIC) are not correctly recording all of their assumed underwriting results on a gross basis whereby the participant’s portion of premiums, losses, expenses (including intercompany related expenses), and other operations of the pools are recorded separately in a participant's financial statements rather than netted against each other within LMIC. Paragraph 19 of SSAP No. 62R, *Property and Casualty Reinsurance*, states "*Accounting for members of a reinsurance pool shall follow the accounting for the pool member which issued the underlying policy. Specific accounting rules for underwriting pools and associations are addressed in SSAP No. 63-Underwriting Pools"*. Paragraph 9 of SSAP No. 63-*Underwriting Pools* states:

> Underwriting results relating to intercompany pools shall be accounted for and reported as described in paragraph 8. While it is acceptable that intercompany pooling transactions be settled through intercompany arrangements and accounts, intercompany pooling transactions shall be reported on a gross basis in the appropriate reinsurance accounts consistent with other direct, assumed and ceded business.

Paragraph 8 of SSAP No. 63-*Underwriting Pools* states:

> Underwriting results relating to voluntary and involuntary pools shall be accounted for on a gross basis whereby the participant's portion of premiums, losses, expenses [including related party expenses], and other operations of the pools are recorded separately in the financial statements rather than netted against each other. Premiums and losses shall be recorded as direct, assumed, and/or ceded as applicable. If the reporting entity is a direct writer of the business, premiums shall be recorded as directly written and accounted for in the same manner as other business which is directly written by the entity. To the extent that premium is ceded to a pool, premiums and losses shall be recorded in the same manner as any other reinsurance arrangement. A reporting entity who is a member of a pool shall record its participation in the pool as assumed business as in any other reinsurance arrangement.

The company's current accounting practices create an inaccurately reported Schedule F of the Annual Statement. It is recommended that the company correct its current accounting practice to comply with SSAP No. 62R and SSAP No. 63 requirements for recording reinsurance balances on a gross basis for each individual pool member. Additionally, it is recommended that the company document its amended accounting practice in a formal reinsurance accounting policy memo. It is further recommended that the company also review its reinsurance process narratives/flowcharts and controls and update as necessary, for any changes in its reinsurance accounting practice and processes. It is further recommended that the company evaluate and amend the Liberty Mutual Second Amended and Restated Reinsurance Agreement for any provisions that are not in compliance with SSAP No. 62R and SSAP No. 63. Finally, it is recommended that the company correct Schedule F for the revised gross reporting basis for each individual pool member, as necessary.

VIII. CONCLUSION

Liberty Mutual Fire Insurance Company was incorporated under the laws of the Commonwealth of Massachusetts on October 31, 1908, and commenced business on November 5, 1908. LMFIC was redomiciled from the Commonwealth of Massachusetts to the state of Wisconsin effective December 22, 2005.

LMFIC's current business emphasis is on personal home and automobile lines, with distribution by personal lines captive sales representatives. Commercial lines distribution is by independent agents. The company is licensed in all 50 states of the United States, the District of Columbia, and Puerto Rico. Headquarters are maintained in Boston, Massachusetts. The homeowners multiple peril and personal automobile liability lines of business each provided approximately 23% and 20%, respectively, of direct premiums written in 2018. LMFIC has an 8% net participation in the Liberty Pool. The 2018 annual statement reported assets of $6.5 billion, liabilities of $4.8 billion, policyholders' surplus of $1.7 billion, and net income of $0.4 billion.

Assets and liabilities decreased in 2014 primarily due to the company entered into a combined aggregate excess of loss agreement with National Indemnity Company for workers' compensation and asbestos and environmental liabilities effective January 1, 2014, and LMIC's sale of two insurance subsidiaries, Bridgefield Employers Insurance Company and Bridgefield Casualty Insurance Company, which ceded to the Liberty Pool. In 2017, assets and liabilities increased due to losses from hurricanes, wildfires, and hailstorms.

Liberty Mutual has been shifting direct premium written from LMFIC to other affiliates resulting in decreasing gross premium written. In the past two years, net premium written, and premium earned increased due to rate increases in private passenger auto, homeowners and specialty lines, and the Ironshore acquisition effective July 1, 2017.

The examination resulted in no adjustments to policyholders' surplus and one reclassification from Schedule B to Schedule BA. The current examination resulted in 10 recommendations, one of which was a repeat recommendation from the prior examination, one related to adherence to the bylaws, one related to the reporting of executive compensation, two related to the reporting of commercial mortgage loan agreements, and five related to the reporting of reinsurance balances.

IX. SUMMARY OF COMMENTS AND RECOMMENDATIONS

1. Page 50 Board of Directors Meetings—It is recommended that the company either comply with Article III, Section 4 of its bylaws and hold at least four board meetings each year or amend its bylaws as necessary to reflect its intended practices of corporate governance regarding board meetings.

2. Page 50 Executive Compensation—It is recommended that the company report compensation in accordance with the instructions on the Report of Executive Compensation per ss. 601.42 and 611.62 (4), Wis. Stat.

3. Page 51 Report on Compulsory and Security Surplus—It is again recommended that the company establish procedures for the accurate completion and filing of the Wisconsin Compulsory and Security Surplus Calculation.

4. Page 52 Reporting of Commercial Mortgage Loans Agreements—It is recommended that the company reclassify the Prudential, MetLife, and Morgan Stanley participating commercial mortgage loan investments from Schedule B to Schedule BA under the Schedule BA line Fixed and Variable Interest Rate Investment that have the Underlying Characteristics of Mortgage Loans, Unaffiliated.

5. Page 52 Reporting of Commercial Mortgage Loans Agreements—It is further recommended that the company implement controls to evaluate new transactions/contracts at their inception and clearly document the rationale and support for their conclusion on the accounting and reporting treatment.

6. Page 53 Reporting of Reinsurance Balances—It is recommended that the company correct its current accounting practice to comply with SSAP No. 62R and SSAP No. 63 requirements for recording reinsurance balances on a gross basis for each individual pool member.

7. Page 53 Reporting of Reinsurance Balances—Additionally, it is recommended that the company document its amended accounting practice in a formal reinsurance accounting policy memo.

8. Page 54 Reporting of Reinsurance Balances—It is further recommended that the company also review its reinsurance process narratives/flowcharts and controls and update as necessary, for any changes in its reinsurance accounting practice and processes.

9. Page 54 Reporting of Reinsurance Balances—It is further recommended that the company evaluate and amend the Liberty Mutual Second Amended and Restated Reinsurance Agreement for any provisions that are not in compliance with SSAP No. 62R and SSAP No. 63.

10. Page 54 Reporting of Reinsurance Balances—Finally, it is recommended that the company correct Schedule F for the revised gross reporting basis for each individual pool member, as necessary.

X. ACKNOWLEDGMENT

The courtesy and cooperation extended during the course of the examination by the officers and employees of the company are acknowledged.

In addition to the undersigned, the following representatives of the Office of the Commissioner of Insurance, State of Wisconsin, participated in the examination:

Name	Title
Abdel-Aziz Kondoh	Insurance Financial Examiner
Gregory Mielke	Insurance Financial Examiner
Junji Nartatez	Insurance Financial Examiner
Terry Lorenz, CFE	Workpaper Specialist
David Jensen, CFE	IT Specialist
Jerry DeArmond, CFE	Reserve Specialist

Respectfully submitted,

Marisa K. Rodgers
Examiner-in-Charge

XI. APPENDIX—SUBSEQUENT EVENTS

On April 15, 2019, LMIC announced the acquisition of the global surety and credit reinsurance operations of AmTrust Financial Services, Inc. The proposed acquisition would result in LMG acquiring four AmTrust businesses: AmTrust Surety, which provides contract, commercial, and subdivision bonds primarily in the western U.S.; AmTrust Insurance Spain, which offers surety bonds in Spain and Latin America; Nationale Borg, which provides surety, worker disability, and home purchase bonds in the Netherlands and Belgium; and Nationale Borg Reinsurance, a global provider of surety, trade credit, and political risk reinsurance. On May 31, 2019, LMIC completed the acquisition of the business and operations of AmTrust Surety, the U.S. surety operations of AmTrust Financial Services, Inc. On October 2, 2019, LMIC completed the AmTrust Insurance Spain, Nationale Borg, and Nationale Borg Reinsurance portion of the acquisition.

On November 5, 2019, LMIC entered into a new adverse development cover with NICO. The new adverse development cover provides coverage for limits of up to $1.3 billion across certain U.S. workers' compensation, commercial auto, and general liability business, attaching at approximately $8.0 billion. LMIC paid $0.5 billion for the coverage contract and the contract is accounted for on a retroactive basis, effective January 1, 2019.

The agreement provides for immediate cover in the $0.3 billion first layer for reserves ceded at inception, a loss corridor of $0.4 billion by LMIC, and an additional $1.0 billion in limit above the loss corridor.

On March 11, 2020, the World Health Organization declared coronavirus disease (COVID-19) a pandemic. As of the date of this report, there was significant uncertainty on the effect that the pandemic would have on the insurance industry, economy, and society at large. Any impact to the company or the Liberty Pool will take time to assess and will be specific to the class and mix of business they underwrite. The MA DOI and OCI will continue to monitor how the pandemic might impact the Liberty Mutual Group.