Report of the Examination of

Arch Mortgage Guaranty Company

Greensboro, North Carolina

As of December 31, 2020

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January 26, 2022

Honorable Nathan Houdek
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:

ARCH MORTGAGE GUARANTY COMPANY
Greensboro, North Carolina

and this report is respectfully submitted.

I. INTRODUCTION

The previous examination of Arch Mortgage Guaranty Company (the company or AMGC) was conducted in 2016 as of December 31, 2015. The current examination covered the intervening period ending December 31, 2020, and included a review of such subsequent transactions as deemed necessary to complete the examination.

The examination of the company was conducted concurrently with the examination of the Arch Insurance mortgage sub-group. The North Carolina Department of Insurance (North Carolina DOI) acted in the capacity as the lead state for the coordinated examination. Work performed by the North Carolina 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

An independent actuarial firm was engaged under a contract with the Office of the Commissioner of Insurance. The actuary reviewed the adequacy of the company's loss and loss adjustment expense reserves. The actuary's results were reported to the examiner-in-charge. As deemed appropriate, reference is made in this report to the actuary's conclusion.

II. HISTORY AND PLAN OF OPERATION

Arch Mortgage Guaranty Company was organized on December 21, 1966, under the name Commercial Loan Insurance Corporation (CLIC) as a mortgage guaranty insurer domiciled in the state of Wisconsin and began transacting business on May 1, 1967. Prior to August 2001, the company was a wholly owned subsidiary of WMAC Investment Corporation, then an affiliate of Leucadia National Corporation.

On August 6, 2001, PMI Mortgage Insurance Co. (PMI), an Arizona-domiciled insurance company and a wholly owned subsidiary of The PMI Group, Inc. (TPG), a publicly owned holding company incorporated in Delaware, acquired a 100% ownership of the company. The company's legacy business insured lending institutions and investors against financial loss resulting from the default of mortgage loans on various types of industrial and commercial real estate.

Effective November 11, 2009, the company redomiciled from Wisconsin to Arizona and changed its name to PMI Mortgage Assurance Co. (PMAC). During the first quarter of 2010, the company received regulatory approvals for its merger with WMAC Credit Insurance Corporation (WMAC), a former affiliate of the company and former subsidiary of PMI. The company's authorized capital was $2,000,000 consisting of 200,000 shares of $10 par value voting common stock. At the time, the company did not insure any policies. The plan of the company was to write new mortgage business in the states where PMI was unable to continue to write new mortgage insurance. The company was granted limited approval by the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) as a mortgage guaranty insurer for loans eligible for their purchase, subject to certain conditions and restrictions.

On August 19, 2011, PMI and its wholly owned subsidiary, PMI Insurance Co. (PIC), were placed under a supervisory order by the Director of the Arizona Department of Insurance as a result of Arizona DOI's determination of a hazardous financial condition under Arizona insurance laws and regulations relating to PMI's June 30, 2011, financial condition. The order required the two companies, PMI and PIC, to cease issuing new mortgage guaranty insurance commitments at close of business on August 19, 2011, and to cease issuing mortgage insurance certificates under pending commitments at the close of business on September 16, 2011. An interim supervisor was appointed for PMI and PIC.

Unlike PMI and PIC, PMAC was not placed under supervision by the Arizona DOI and remained reasonably capitalized.

Effective August 22, 2011, Fannie Mae and Freddie Mac each suspended PMI, PIC, and PMAC from their lists of approved mortgage insurers. These suspensions remain in effect. Although the company had transacted a small volume of business in a few states for a brief period in 2011, it ceased all new business writing pursuant to the terms set by these Government Sponsored Enterprises (GSEs), but continued coverage for its small book of existing residential mortgage insurance business.

On March 14, 2012, the Arizona Superior Court of Maricopa County issued an Order for Appointment of Receiver and Injunction placing PMI into rehabilitation.

On January 30, 2014, Arch U.S. MI Holdings Inc. (Arch U.S. MI Holdings), an indirect subsidiary of Arch Capital Group, Ltd. (ACGL), completed the acquisition of the company from its owner, PMI, and acquired PMI’s mortgage insurance platform and related assets. Upon the acquisition, the company’s name was changed to Arch Mortgage Guaranty Company and the company was redomiciled to Wisconsin. The company was repurposed by its new ownership to serve the non-GSE market for mortgage insurance. This consists mainly of insurance on mortgages that a financial institution intends to retain rather than sell to Fannie Mae or Freddie Mac.

On August 15, 2016, American International Group (AIG), entered into a definitive stock purchase agreement to sell its 100 percent interest in United Guaranty Corporation (UGC) and certain related affiliates, including United Guaranty Residential Insurance Company (UGRIC) and United Guaranty Residential Insurance Company of North Carolina (UGRIC-NC), to ACGL. Upon obtaining all required approvals from the North Carolina DOI, Arch U.S. MI Holdings, an indirect subsidiary of ACGL, completed the acquisition of UGC, including certain related affiliates, on December 31, 2016. Following the acquisition, the combined entity pursued a restructuring of legal entities to eliminate redundancies in the legal entity structure.

The company is licensed to transact residential mortgage guaranty insurance business in all 50 U.S. states and the District of Columbia.

In 2020, the company wrote direct premium in the following states:

Texas	$ 986,840	27.0%
Massachusetts	612,959	16.8
California	442,217	12.1
Wisconsin	407,087	11.1
Georgia	113,481	3.1
All others	1,093,582	29.9
Total	$3,656,166	100.0%

The company offers mortgage insurance coverage for mortgage loans that originators intended to retain in their portfolios or to include in private securitizations. The company's products are marketed through salespeople that are employees of an affiliate of the company, Arch U.S. MI Services Inc.

The following table is a summary of the net insurance premiums written by the company in 2020. 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
Mortgage guaranty	$3,656,166	$0	$3,295,318	$360,848
Total All Lines	$3,656,166	$0	$3,295,318	$360,848

III. MANAGEMENT AND CONTROL

Board of Directors

The board of directors consists of six members. Six 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. The board members do not receive any compensation for serving on the board. Currently, the board of directors consists of the following persons:

Name and Residence	Principal Occupation	Term Expires
Robert M. Schmeiser Chapel Hill, North Carolina	President, Chief Executive Officer, Chairman	2022
Cheryl A. Feltgen Greensboro, North Carolina	Executive Vice President, Chief Risk Officer	2022
John E. Gaines Winston Salem, North Carolina	Executive Vice President, Chief Actuary	2022
Thomas M. Hitt Colfax, North Carolina	Senior Vice President, Insurance Operations	2022
Thomas H. Jeter Chapel Hill, North Carolina	Executive Vice President, Chief Financial Officer	2022
Carl E. Tyree Darnestown, Maryland	Executive Vice President, Chief Sales Officer	2022

Officers of the Company

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

Name	Office
Robert M. Schmeiser	President and Chief Executive Officer
Theresa M. Cameron	Vice President and Secretary
Tracie R. Cranford	Senior Vice President and Treasurer
Cheryl A. Feltgen	Executive Vice President and Chief Risk Officer
John E. Gaines	Executive Vice President and Chief Actuary
Thomas M. Hitt	Senior Vice President, Insurance Operations
Thomas H. Jeter	Executive Vice President and Chief Financial Officer
Brian J. Smith	Senior Vice President and Controller
Carl E. Tyree	Executive Vice President and Chief Sales Officer

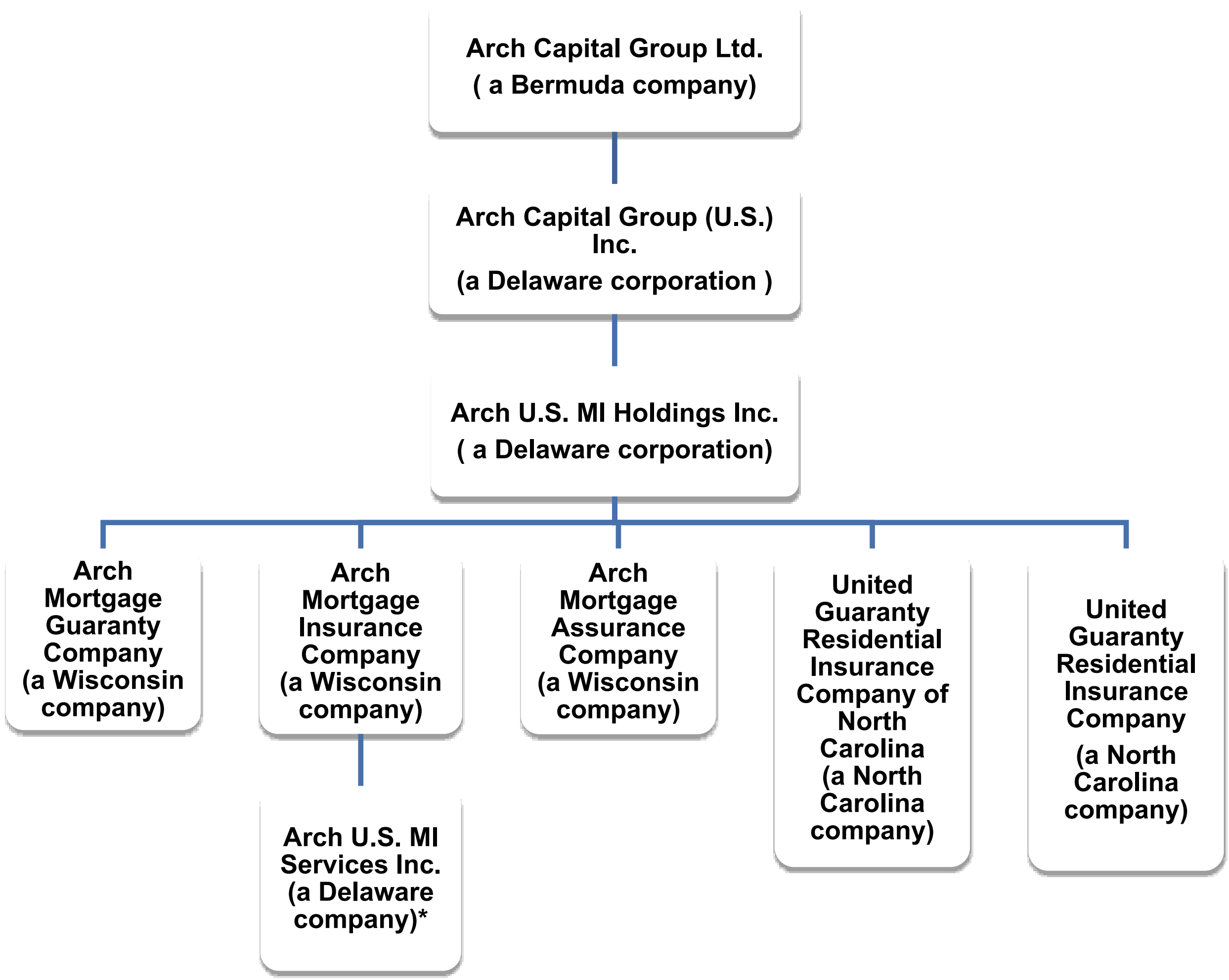
Committees of the Board

There are no committees of the board.

IV. AFFILIATED COMPANIES

Arch Mortgage Guaranty Company is a member of a holding company system. The organizational chart below depicts the relationships among the affiliates in the group. A brief description of the significant affiliates follows the organizational chart. Note that the organizational chart is a simplified version of the complete organization due to the size and complexity of the holding company system.

Organizational Chart
As of December 31, 2020



*Effective September 1, 2021, all shares of issued and outstanding stock of Arch U.S. MI Services Inc. were transferred to Arch U.S. MI Holdings Inc. via dividend. Arch U.S. MI Services Inc. is no longer a subsidiary of Arch Mortgage Insurance Company.

Arch Capital Group Ltd.

Arch Capital Group Ltd. (ACGL), a Bermuda publicly traded company, is a global insurer and reinsurer with operations in Bermuda, the United States, Canada, Europe, and Australia. ACGL is the company's ultimate parent which owns 100% interest of the company. As of December 31, 2020, the audited GAAP consolidated financial statements of ACGL reported assets of $43.3 billion, liabilities of $29.3 billion, and shareholders' equity of $14.0 billion including ACGL's redeemable noncontrolling interests. Operations for 2020 produced net income of $1.4 billion.

Arch Capital Group U.S. Inc.

Arch Capital Group U.S. Inc. (ACG US) is a wholly owned, indirect subsidiary of ACGL. As of December 31, 2020, the unaudited GAAP financial statements of ACG US reported assets of $5.8 billion, liabilities of $1.1 billion, and shareholders' equity of $4.7 billion. Operations for 2020 produced net income of $325.2 million.

Arch U.S. MI Holdings Inc.

Arch U.S. MI Holdings Inc. (Arch U.S. MI Holdings) is a wholly-owned subsidiary of ACG US, which is a wholly owned, indirect subsidiary of ACGL. Arch U.S. MI Holdings owns 100% of the shares of AMGC, Arch Mortgage Insurance Company (AMIC), and Arch Mortgage Assurance Company (AMAC). As of December 31, 2020, the unaudited GAAP financial statements of Arch U.S. MI Holdings reported assets of $4.0 billion, liabilities of $961.2 million, and shareholders' equity of $3.0 billion. Operations for 2020 produced net income of $348.0 million.

Arch Mortgage Insurance Company

Arch Mortgage Insurance Company (AMIC) is wholly owned subsidiary of Arch U.S. MI Holdings which is an indirect subsidiary of Arch Capital Group Ltd. AMIC is licensed to transact residential mortgage guaranty insurance business in all 50 U.S. states, the District of Columbia, Puerto Rico, and Guam. AMIC is approved as an eligible mortgage insurer for loans to be acquired by Fannie Mae and Freddie Mac, subject to maintaining compliance with certain ongoing requirements. As of December 31, 2020, the audited statutory financial statements of AMIC reported assets of $2.2 billion, liabilities of $1.9 billion and policyholders' surplus of $243.5 million. Operations for 2020 produced net income of $38.9 million.

Arch U.S. MI Services Inc.

Arch U.S. MI Services Inc. (Arch U.S. MI Services) is an affiliate of AMIC and was established to provide operational and technological support to the other companies within the Arch U.S. MI Holdings consolidated group. The vast majority of employees that provide operational, financial, and legal services to this group are employed by Arch U.S. MI Services. Arch U.S. MI Services entered into a services agreement with AMGC on January 30, 2014. The subject matter of the agreement is described further in the "Agreements with Affiliates" section of this report. Prior to September 1, 2021, Arch U.S. MI Services was a wholly owned subsidiary of AMIC. On September 1, 2021, AMIC contributed the common stock of Arch U.S. MI Services to Arch U.S. MI Holdings. As of December 31, 2020, the unaudited GAAP financial statements of Arch U.S. MI Services reported assets of $159.8 million, liabilities of $86.1 million, and shareholders' equity of $73.6 million. The shareholder equity of Arch U.S. MI Services is a non-admitted asset on AMIC's balance sheet because the entity is not audited. Operations for 2020 produced net loss of $6.4 million.

Arch Mortgage Assurance Company

Arch Mortgage Assurance Company (AMAC) is a wholly owned subsidiary of Arch U.S. MI Holdings. AMAC is currently in runoff and has not written any new business since 2008. AMAC is currently licensed in 41 states and the District of Columbia. As of December 31, 2020, the audited statutory financial statements of AMAC reported assets of $8.2 million, liabilities of $464,700, and policyholders' surplus of $7.7 million. Operations for 2020 produced statutory net income of $171,200.

United Guaranty Residential Insurance Company

United Guaranty Residential Insurance Company (UGRIC) was incorporated on November 27, 1963, and commenced business on December 18, 1963. UGRIC provides private residential mortgage guaranty insurance to mortgage lenders and is approved as an eligible mortgage insurer for loans that are to be acquired by Fannie Mae and Freddie Mac (Government Sponsored Entities, or collectively "GSEs"). In addition to the GSEs, UGRIC's primary customers include banks, mortgage loan originators and servicers. UGRIC is licensed in all 50 states, the District of Columbia, and the U.S. Virgin Islands.

As of December 31, 2020, the audited statutory financial statements of UGRIC reported assets of $1.9 billion, liabilities of $1.8 billion, and policyholders' surplus of $181.4 million. Operations for 2020 produced net income of $138.8 million.

United Guaranty Residential Insurance Company of North Carolina

United Guaranty Residential Insurance Company of North Carolina (UGRIC-NC) is a credit insurer licensed in 46 states and the District of Columbia. UGRIC-NC provided credit insurance that protected lenders from losses on second-lien mortgages. However, UGRIC-NC ceased writing this business in 2008 and is under a Voluntary Settlement Agreement with the North Carolina DOI to write no new business. UGRIC-NC's license has been restricted to "No New Business" accordingly, and it is in run-off, servicing its existing policies. In January 2021, the Wisconsin Office of the Commissioner of Insurance (OCI) and the North Carolina DOI approved a request from UGRIC-NC to enter into a 100% quota share reinsurance agreement with affiliate AMAC to reinsure all existing junior lien mortgage business.

As of December 31, 2020, the audited statutory financial statements of UGRIC-NC reported assets of $37.5 million, liabilities of $13.2 million, and policyholders' surplus of $24.3 million. Operations for 2020 produced net income of $20.4 million.

Agreements with Affiliates

Surplus Notes

On December 19, 2014, AMGC issued a Contribution Note in the amount of $7.5 million to ACG US in exchange for receipt of the principal amount with an annual interest rate of 6.5%. Interest payments on the Contribution Note were due annually on December 19, with the prior approval of OCI. The Contribution Note had a maturity date of December 19, 2044, however, the Contribution Note was subsequently redeemed on April 3, 2017.

On April 1, 2017, OCI approved a Contribution Note in the amount of $7.5 million issued by AMGC to Arch Capital Finance (Ireland) Limited in exchange for receipt of the principal amount with an annual interest rate of 6.3% to repay in full the principal and final accrued interest of the aforementioned Contribution Note issued to ACG US. AMGC will commence paying annual interest on the principal amount on December 15, 2017, subject to the contemporaneous approval of OCI. The note became redeemable on April 1, 2022.

Service Agreement

Effective January 30, 2014, AMGC entered into a services agreement with Arch U.S. MI Services. Under this agreement, Arch U.S. MI Services provides various services to AMGC, including accounting, data processing, systems work, records, information technology, employee administration, legal services, financial reporting, tax returns, and other services such as office space, general overhead items, advertising, allocation of expenses, arranging of separate insurance coverage, and collection and handling of insurance premiums. AMGC is liable to compensate Arch U.S. MI Services for the cost of the provided services by remitting a payment for the amount billed. AMGC reimburses Arch U.S. MI Services for all reasonable and documented out-of-pocket expenses. The agreement can be terminated by giving at least 90 days' written notice or upon resolution approved by the boards of directors of the company, Arch U.S. MI Services and Arch U.S. MI Holdings expressing intent to terminate the agreement.

Investment Manager Agreement

The company has an investment manager agreement with an indirect affiliate, Arch Investment Management Ltd. (AIM), effective January 30, 2014, for investment management services to be provided to the company. Under this agreement, AIM acts as the company's investment manager and assumes the responsibilities and obligations of a fiduciary with respect to the services subject of the agreement including investment advisory and oversight, investment market risk monitoring, investment credit risk monitoring, investment compliance monitoring, and asset allocation monitoring. AIM provides appraisals of investment accounts, performance tabulations, compliance certifications, summaries of purchases and sales, and any other reports agreed upon. The company compensates AIM by payment of a monthly asset management fee at an annual rate based on whether the services provided by AIM for the assets under management in the investment accounts are Investment Consulting and Oversight Services, or Direct Investment Management Services, with such allocation set forth in the investment manager's invoice. The agreement can be terminated by both parties at any time upon 45 days' prior written notice.

Tax Sharing Agreement

Effective November 1, 2014, AMGC was specifically named in the Third Amended and Restated Tax Sharing Agreement between ACG US and its subsidiaries. Effective January 1, 2017, the Fourth Amended and Restated Tax Sharing Agreement added North Carolina domestic insurers as parties to the agreement. Under the tax sharing agreement, ACG US files a consolidated U.S. Federal Income Tax Return that includes AMGC and other affiliates of the ACG US holding company group, whereby the income taxes are computed as if each subsidiary filed a separate tax return on a stand-alone basis, utilizing the applicable Group consolidated tax rate for the applicable taxable year or part thereof during which such subsidiary was a member of the Group. Tax payments are payable directly to the company's immediate parent, Arch U.S. MI Holdings, which will thereafter make any necessary payments of taxes to ACG US. Taxes payable to the parent are due within 90 days of the date the Group tax liability is paid. A credit is given to each company for any net operating losses or other items used in the consolidated tax return filed by ACG US, to the extent those losses or items may be utilized by each company on a separate return basis. The agreement also addresses the filing of consolidated state income tax returns on a state-by-state basis in a manner consistent with the approach provided in respect to the U.S. Federal Income Tax Return.

V. REINSURANCE

The company's reinsurance portfolio and strategy at the time of the examination are described below. A list of the companies that have a significant amount of reinsurance in force at the time of the examination follows. The contracts contained proper insolvency provisions.

Affiliated Ceding Contracts

1.	Type:	Quota Share
	Reinsurer:	Arch Reinsurance Company (ARC)
	Scope:	Individual mortgage insurance policies written by AMGC, on or after the effective date
	Retention:	50% of the business reinsured
	Coverage:	50% of all mortgage insurance policies written by AMGC, after the effective date, to ARC.
	Effective date:	Original agreement effective January 1, 2015, and amended effective January 1, 2016, and further amended effective January 1, 2018
	Termination:	The earliest of the agreement is terminated by the company or the reinsurer and the date of natural expiration of all liability
2.	Type:	Quota Share
	Reinsurer:	Arch Reinsurance Ltd. (ARL)
	Scope:	Individual mortgage insurance policies written by AMGC, after the effective date, as well as for all in-force mortgage insurance policies written by AMGC prior to the effective date
	Retention:	At least 20% of the business reinsured
	Coverage:	80% of risk, net of cessions to ARC under the ARC reinsurance agreement.
	Effective date:	Original agreement effective January 1, 2015, and amended and restated effective January 1, 2016, and further amended effective January 1, 2018
	Termination:	The earliest of the agreement is terminated by the company or the reinsurer and the date of natural expiration of all liability

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, 2020, 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.

Arch Mortgage Guaranty Company
Assets
As of December 31, 2020

	Assets	Nonadmitted Assets	Net Admitted Assets
Bonds	$43,725,019	$	$43,725,019
Cash, cash equivalents, and short-term investments	3,261,038		3,261,038
Investment income due and accrued	180,161		180,161
Premiums and considerations:			
Uncollected premiums and agents' balances in course of collection	167,492		167,492
Receivable from parent, subsidiaries, and affiliates	187,029		187,029
Write-ins for other than invested assets:			
Statutory deposit in Guam	60,000		60,000
Licenses purchased	5,635,000	5,635,000	0
Other receivables	1,431		1,431
Total Assets	$53,217,170	$5,635,000	$47,582,170

Arch Mortgage Guaranty Company
Liabilities, Surplus, and Other Funds
As of December 31, 2020

Losses		$ 71,515
Loss adjustment expenses		3,000
Other expenses (excluding taxes, licenses, and fees)		136,194
Taxes, licenses, and fees (excluding federal and foreign income taxes)		35,628
Current federal and foreign income taxes		40,572
Unearned premiums		145,570
Advance premium		1,018
Ceded reinsurance premiums payable (net of ceding commissions)		512,407
Remittances and items not allocated		6,480
Payable to parent, subsidiaries, and affiliates		310,472
Write-ins for liabilities:		
Contingency reserve		1,465,959
Premium refund reserve		657
Total Liabilities		2,729,472
Common capital stock	$ 3,000,000	
Surplus notes	7,500,000	
Gross paid in and contributed surplus	79,845,107	
Unassigned funds (surplus)	(45,492,409)	
Surplus as Regards Policyholders		44,852,698
Total Liabilities and Surplus		$47,582,170

Arch Mortgage Guaranty Company
Summary of Operations
For the Year 2020

Underwriting Income		
Premiums earned		$ 286,601
Deductions:		
Losses incurred	$ 56,172	
Loss adjustment expenses incurred	3,000	
Other underwriting expenses incurred	2,844,764	
Write-ins for underwriting deductions:		
Increase of contingency reserve	143,300	
Release of contingency reserve	(1,349)	
Total underwriting deductions		3,045,887
Net underwriting gain (loss)		(2,759,286)
Investment Income		
Net investment income earned	206,239	
Net realized capital gains (losses)	579,405	
Net investment gain (loss)		785,644
Other Income		
Net income (loss) after dividends to policyholders but before federal and foreign income taxes		(1,973,642)
Federal and foreign income taxes incurred		(503,445)
Net Income (Loss)		$(1,470,197)

Arch Mortgage Guaranty Company
Cash Flow
For the Year 2020

Premiums collected net of reinsurance		$ 448,317
Net investment income		257,159
Total		705,476
Benefit- and loss-related payments	$ (26,461)	
Commissions, expenses paid, and aggregate write-ins for deductions	2,875,411	
Federal and foreign income taxes paid (recovered)	(468,488)	
Total deductions		2,380,462
Net cash from operations		(1,674,986)
Proceeds from investments sold, matured, or repaid:		
Bonds	19,063,139	
Cost of investments acquired (long-term only):		
Bonds	14,806,649	
Net cash from investments		4,256,490
Cash from financing and miscellaneous sources:		
Other cash provided (applied)		(326,111)
Reconciliation:		
Net Change in Cash, Cash Equivalents, and Short-Term Investments		2,255,393
Cash, cash equivalents, and short-term investments:		
Beginning of year		1,005,645
End of Year		$3,261,038

Arch Mortgage Guaranty Company
Policyholders' Position Calculation
December 31, 2020

Surplus as regards policyholders		$44,852,697	
Contingency reserve		1,465,959	
Total policyholders' position			$46,318,656
Net minimum policyholders' position:			
Individual loans:			
Loan-to-value more than 75%	$674,843		
Total individual loans		674,843	
Deduct aggregate minimum policyholder position for certain loans with established reserves		14,354	
Total minimum policyholders' position			660,489
Excess of Total Policyholders' Position over Minimum Policyholders' Position			$45,658,167

Arch Mortgage Guaranty Company
Analysis of Surplus
For the Five-Year Period Ending December 31, 2020

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

	2020	2019	2018	2017	2016
Surplus, beginning of year	$46,322,895	$47,697,188	$49,177,635	$49,577,309	$49,577,055
Net income	(1,470,197)	(1,374,292)	(1,480,447)	(16,993)	46,607
Change in net deferred income tax				(382,681)	(46,354)
Surplus, End of Year	$44,852,698	$46,322,895	$47,697,188	$49,177,635	$49,577,309

Arch Mortgage Guaranty Company
Insurance Regulatory Information System
For the Five-Year Period Ending December 31, 2020

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	2020	2019	2018	2017	2016
#1	Gross Premium to Surplus	8%	6%	4%	2%	5%
#2	Net Premium to Surplus	1	1	0	0	1
#3	Change in Net Premiums Written	41*	45*	42*	-53*	999*
#4	Surplus Aid to Surplus	0	0	0	0	0
#5	Two-Year Overall Operating Ratio	757*	913*	867*	254*	549*
#6	Investment Yield	0.4*	0.8*	0.6*	0.3*	0.2*
#7	Gross Change in Surplus	-3	-3	-3	-1	0
#8	Change in Adjusted Surplus	-3	-3	-3	-1	0
#9	Liabilities to Liquid Assets	6	5	4	3	3
#10	Agents' Balances to Surplus	0	0	0	0	0
#11	One-Year Reserve Development to Surplus	-0	-0	0	-0	0
#12	Two-Year Reserve Development to Surplus	-0	-0	-0	-0	0
#13	Estimated Current Reserve Deficiency to Surplus	0	0	0	0	0

Ratio No. 3 measures the change in net premiums written from the prior year. The significant changes in net premiums were due to changes in strategic plans for the company. In 2011, the company ceased writing new business, but the company restarted writing business in 2015. In 2017, the company decided to shift away from single premium business. And in 2018, the company began an initiative to write structured mortgage insurance. The company did not enter into any structured mortgage insurance contracts in 2019 and entered into one structured mortgage insurance contract in 2020.

Ratio No. 5 measures the company's profitability over the previous two-year period. The exceptional results each year under examination were mainly due to high other underwriting expenses. This ratio is heavily skewed due to the company's limited underwriting production.

Ratio No. 6 measures the average return on the company's investments. The low investment yields each year under the examination were mainly due to the company's conservative investment portfolio. The low-interest-rate environment also contributed to the exceptional results.

Growth of Arch Mortgage Guaranty Company

Year	Admitted Assets	Liabilities	Surplus as Regards Policyholders	Net Income
2020	$47,582,170	$2,729,472	$44,852,698	($1,470,197)
2019	48,839,798	2,516,903	46,322,895	(1,374,292)
2018	49,899,023	2,201,835	47,697,188	(1,480,447)
2017	50,884,039	1,706,404	49,177,635	(16,993)
2016	51,292,182	1,714,873	49,577,309	46,607
2015	50,918,255	1,341,200	49,577,055	28,226

Year	Gross Premium Written	Net Premium Written	Premium Earned	Loss and LAE Ratio	Expense Ratio	Combined Ratio
2020	$3,656,166	$360,848	$286,601	20.6%	827.7%	848.3%
2019	2,584,497	256,728	257,235	-14.0	921.3	907.3
2018	1,690,069	176,528	205,253	19.3	1,274.8	1,294.1
2017	1,124,998	123,942	183,097	4.4	548.0	552.4
2016	2,460,535	262,159	121,715	28.7	220.0	248.7
2015	280,283	(69,774)	67,158	20.9	-518.1	-497.2

During the period under examination, the decrease in policyholders' surplus each year starting 2017 was due to the net loss each year. The annual net loss was mostly due to elevated other underwriting expenses, resulting from limited premium production. Also as mentioned previously, the changes in gross and net premiums were due to changes in strategic plans for the company. Loss and LAE ratios were elevated in 2020 due to higher levels of default activity due to the COVID-19 Pandemic, although the increase was not significant.

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, 2020, is accepted.

Examination Reclassifications

No reclassifications were made as a result of the examination.

VII. SUMMARY OF EXAMINATION RESULTS

Compliance with Prior Examination Report Recommendations

There were three 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. Executive Compensation—It is recommended that the company properly complete the Report on Executive Compensation as required by s.611.63 (4), Wis. Stat.

   Action—Compliance.

2. Actuarial Report—It is recommended that future actuarial reports contain sufficient documentation for another actuary practicing in the same field to evaluate the entirety of the work by providing a thorough description of the methodology used including how it works and why it is appropriate for the dataset.

   Action—Compliance.

3. Actuarial Opinion Summary—It is recommended that future Actuarial Opinion Summaries include all elements for which the appointed actuary provides an estimate, including both a range and point estimate if both are calculated in the appointed actuary's analysis.

   Action—Compliance.

Summary of Current Examination Results

There were no adverse or material examination findings as a result of the current examination of the company.

VIII. CONCLUSION

Arch Mortgage Guaranty Company offers mortgage insurance coverage for mortgage loans that originators intended to retain in their portfolios or to include in private securitizations. During the period under examination, the decrease in the company's policyholders' surplus each year starting 2017 was due to the net loss each year, which was mainly due to high other underwriting expenses and contingency reserve. The significant changes in gross and net premiums were due to changes in strategic plans for the company. Loss and LAE ratios were elevated in 2020 due to higher levels of default activity due to the COVID-19 Pandemic, although the increase was not significant.

The prior examination resulted in three examination recommendations, which the company has complied with. There were no recommendations made as a result of the current 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, 2020, is accepted. No reclassifications were made as a result of the examination.

IX. SUMMARY OF COMMENTS AND RECOMMENDATIONS

There were no recommendations made as a result of this examination.

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
Xiaozhou (Zoey) Ye	Examiner-in-Charge
Gregory Mielke	Insurance Financial Examiner
Reed Tierney	Insurance Financial Examiner
Eleanor Lu, CISA	IT Specialist
Nicholas Hartwig	Quality Control Specialist
Jerry DeArmond, CFE	Reserve Specialist

Respectfully submitted,

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