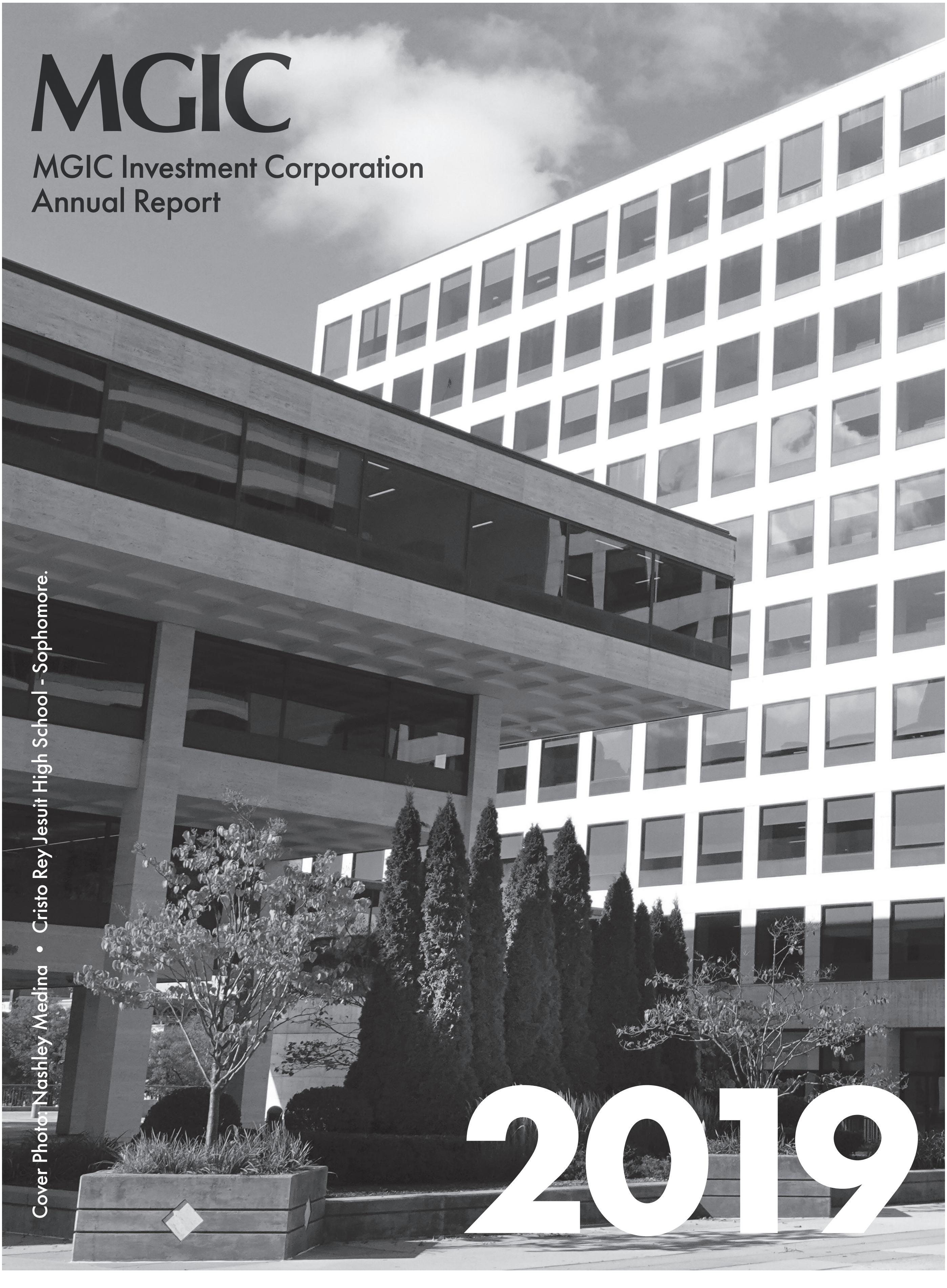
MGIC

MGIC Investment Corporation
Annual Report

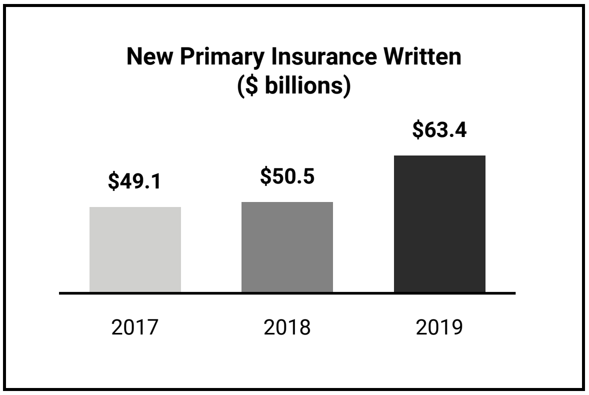


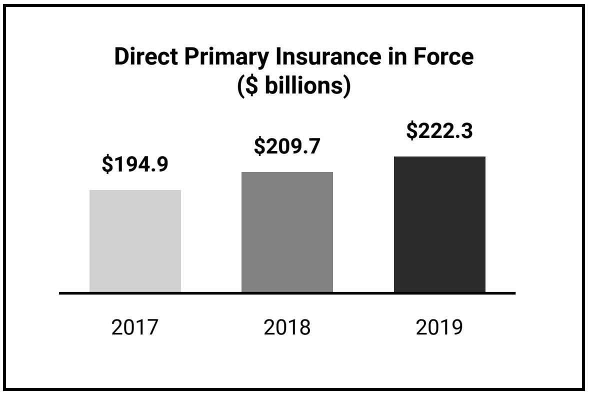
2019

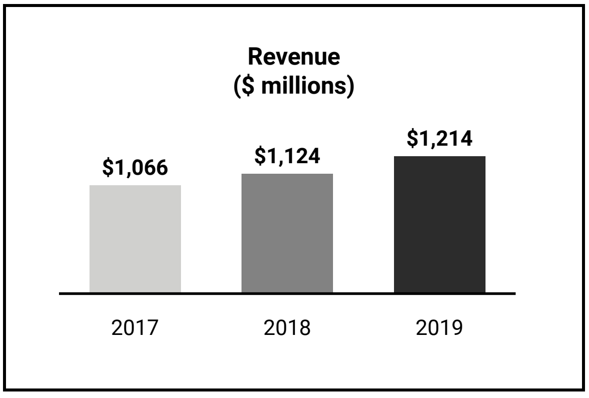
Cover Photo: Nashley Medina • Cristo Rey Jesuit High School - Sophomore.

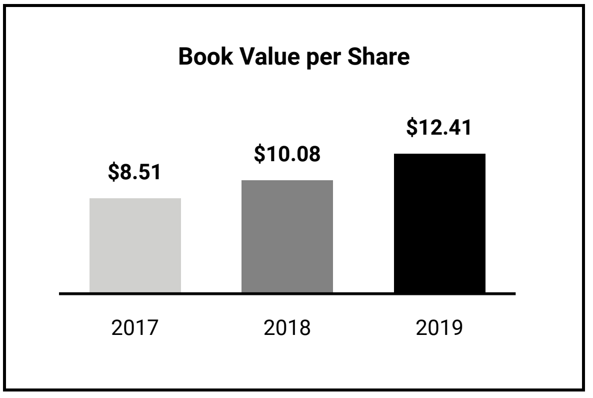
Financial Summary

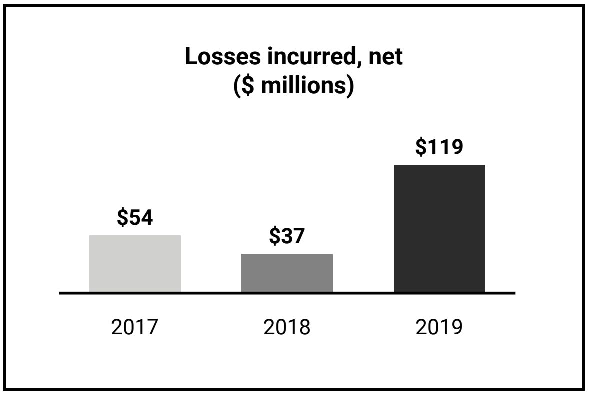
	2017	2018	2019
Net income ($ millions)	$ 355.8	$ 670.1	$ 673.8
Diluted income per share ($)	$ 0.95	$ 1.78	$ 1.85
Net operating income [1] ($ millions)	$ 517.7	$ 668.7	$ 669.7
Net operating income per diluted share (1) ($)	$ 1.36	$ 1.78	$ 1.84

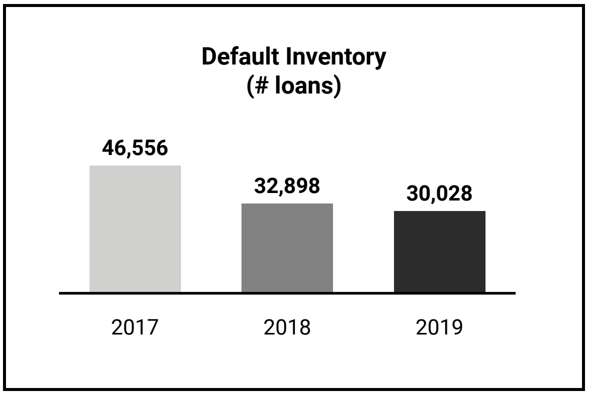












(1) We believe that use of the Non-GAAP measures of net operating income and net operating income per diluted share facilitate the evaluation of the company's core financial performance thereby providing relevant information. For a description of how we calculate these measures and for a reconciliation of these measure to their nearest comparable GAAP measures, see "Explanation and Reconciliation of our use of Non-GAAP Financial Measures" in Management's Discussion and Analysis of Financial Condition and Results of Operations.

Dear Fellow Shareholders:

I am pleased to report that in 2019, we produced another year of exceptional financial results as we continued to execute on our five business strategies and kept our focus on the long-term success of our company. In 2019 our business strategies were to: 1) prudently grow insurance in force, 2) pursue new business opportunities that met our return objectives, 3) preserve and expand the role of MGIC and private mortgage insurance (PMI) in housing finance policy, 4) manage and deploy capital to optimize the creation of shareholder value and 5) expand and develop the talents of our co-workers. Specifically, in 2019 we:

- Earned $673.8 million of net income compared to $670.1 million of net income for 2018.
- Wrote $63.4 billion of new insurance that is consistent with the Company's risk and return goals. This was up 26% from 2018 and contributed to a 6.0% increase in insurance in force.
- Successfully deployed MiQ, our risk-based pricing system.
- Generated an 18.8% return on beginning shareholders' equity.
- Increased book value per outstanding share by 23.1%.
- Repurchased 8.7 million shares of common stock.
- Reestablished a quarterly common stock dividend.
- Substantially exceeded the minimum required assets of Fannie Mae and Freddie Mac's (the GSEs') private mortgage insurer eligibility requirements (PMIERs) and state statutory capital requirements.
- Improved our capital strength and flexibility, including by: 1) lowering our debt to capital ratio, 2) increasing dividend payments from our insurance subsidiary, MGIC, to our holding company and 3) continuing the use of reinsurance transactions (both quota share and insurance-linked notes).
- Maintained a low level of expenses while investing in co-worker development and our operating platforms.

The increase in net income primarily reflects an increase in revenues from accelerated earnings from single premium policies that were refinanced and higher investment income, partially offset by higher losses incurred due to less positive loss reserve development (discussed later in this letter).

The 2019 increase in new insurance written was a result of the attractive purchase mortgage market and refinance conditions, and the dedication of my fellow co-workers to deliver stellar customer service. It also reflects the value proposition we offer to lenders (ease of execution and ancillary services) and borrowers (faster equity buildup and ability to cancel compared to the FHA). Our insurance in force grew as new insurance written was only partially offset by decreasing persistency (the percentage of insurance remaining in force from the year prior). As reported by *Inside Mortgage Finance*, the PMI industry's 2019 market share of mortgage originations was 16.1% and MGIC's 2019 market share within the PMI industry was 16.5%.

At December 31, 2019, the ever-to-date loss ratio (cumulative paid and incurred losses / cumulative net premium earned) and the delinquency rates of the 2011-17 books, which account for 44% of our total insurance in force, were:

Book Year	2011	2012	2013	2014	2015	2016	2017
Ever to Date Loss Ratio	4.4%	2.6%	3.3%	4.7%	3.9%	4.1%	5.0%
Delinquency Ratio (Based on Loan Count)	3.2%	1.6%	1.7%	2.0%	1.5%	1.2%	1.2%

The loss ratios above compare very favorably to the ever to date loss ratios for the 2005 through 2008 books, which averaged more than 100%. As of December 31, 2019, our 2005 through 2008 books accounted for just 11% of insurance in force; and our 2009 and later books accounted for 88% of our insurance in force but only 30% of the delinquency notices in our inventory. Our 2018 and 2019 books accounted for 43% of year-end 2019 insurance in force and are not displayed in the table above because not enough aging has occurred to draw meaningful conclusions.

The insurance we wrote after 2008 has performed exceptionally well, in part due to improved credit profiles of the insured loans and the strong economy, with its low unemployment and solid home price appreciation. However, economic cycles change over time and we have in place risk management tools to help prepare for those changes. One tool is reinsurance. We have used quota share transactions since 2013 and have used insurance-linked notes transactions, executed in the capital markets, on portions of our 2016 through 2019 books. We have been able to execute these transactions at attractive costs of capital and intend to continue to use them when it makes economic sense. In addition to reducing losses in weaker economic environments, these transactions diversify our sources of capital and enhance our returns. Other risk management tools include pricing and underwriting. In 2019 we successfully deployed MiQ, our risk-based pricing system that establishes our premium rates based on more borrower and loan attributes than were previously considered. MiQ allows us to react faster, and in a less disruptive manner, to changing market conditions.

Net losses incurred were $118.6 million in 2019, up from $36.6 million in 2018. This was primarily because in 2019 we benefited from only $71 million of favorable loss reserve development on prior-year delinquencies compared to $167 million in 2018. The favorable loss reserve development in each year was primarily the result of a reduction in the claim rate assumption for those delinquencies. While the number of new notices received was relatively flat year over year, the claim rate applied to those notices was 8% in 2019 compared to 9 - 9.5% in 2018, which resulted in a decrease of $14 million for current period losses. The primary delinquency rate ended 2019 at 2.78% compared to 3.11% at year-end 2018. The number of loans in the primary delinquency inventory decreased approximately 9% from year-end 2018 to year-end 2019.

Our balance sheet and capital position continued to get stronger. At year end 2019 we had $3 billion more capital than required under state capital requirements and $1.2 billion more available assets than required by the PMIERs. Our total debt to capital ratio declined to 17% at December 31, 2019 from 19% at December 31, 2018, primarily due to the level of our 2019 net income. We have a high quality, $5.9 billion cash and investment portfolio, including $325 million at the holding company. Our investment portfolio generated $167 million of net investment income in 2019, an 18% increase over 2018.

In support of our strategy to manage and deploy capital to maximize our long-term value, we increased the amount of capital we were able to upstream from MGIC to our holding company, from $220 million in 2018 to $280 million in 2019. During 2019 we used the remaining $25 million under our 2018 share repurchase authorization and our Board authorized the repurchase of an additional $200 million of common stock (this authorization expires at the end of 2020). By year-end 2019 we had used $89 million of that authorization to repurchase 8.7 million shares and had $111 million remaining. In July 2019, further reflecting our strong capital position, our Board reinstated a quarterly common stock dividend of $0.06 per share, and during 2019 we paid dividends totaling $42 million. In early 2020, our Board authorized a quarterly dividend of $70 million and a special dividend $320 million to be paid from MGIC to the holding company and authorized the repurchase of an additional $300 million of common stock (this authorization expires at the end of 2021).

Regarding Housing Finance Reform, in 2019, the U.S. Treasury Department issued a plan that outlines administrative and legislative reforms for the housing finance system. The reforms are aimed at reducing taxpayer risk, expanding the private sector's role in housing finance, modernizing government housing programs, and achieving sustainable homeownership. We remain encouraged about the future role that our company and industry can play in housing finance; however, the plan Treasury plan did not contain many detailed directives, so its impact on our company and industry is still uncertain.

The FHFA is developing its plan for the eventual end of the GSE conservatorship, which is complicated and will take time to develop and implement. The plan includes finalizing the capital rule for the GSEs. We expect another proposed capital rule to be released early this year, and we expect it will include a framework for determining the capital relief allowed to the GSEs for loans with private mortgage insurance. While changes to the GSE business practices could impact our operations, we remain encouraged about the role our company and industry can play in assisting the GSEs to mitigate their exposure to mortgage credit risk.

We are awaiting the CFPB's updated definition of Qualified Mortgage (QM) and specifically any update that relates to the so-called GSE Patch, set to expire in January 2021. The GSE Patch expands the definition of QM to include mortgages eligible to be purchased by the GSEs, even if they do not meet the debt-to-income ratio limit of 43%. It is hard to predict an effective date for the updated definition because once proposed, a final rule will take several months to be published. We do not believe the CFPB intends to restrict access to credit for deserving homeowners or make homeownership materially more expensive or unattainable.

We continue to be actively engaged on all of these topics and we continue to advocate for any changes to favor the use of private capital, including private MI.

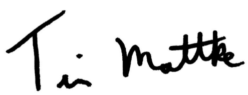
2019 was indeed a good year. We wrote significantly more new insurance than we did in 2018, our insurance in force increased and the new insurance we wrote has strong credit characteristics and is expected to generate meaningful returns for shareholders. Overall, current credit conditions are favorable. The number of new delinquency notices received continues to be low and cure rates remain strong.

2020 marks the 63rd year that MGIC has been helping individuals and families find a better way to affordable and sustainable homeownership. We continue to focus on the long-term success of the Company by offering competitive products and services, while maintaining a sharp focus on expected risk adjusted returns and expenses. In addition to offering a compelling business proposition for our customers, we strive to offer a compelling value proposition for our employees. This enables us to maintain a low co-worker turnover rate and to be a preferred employer. We invest in co-worker development programs that promote accountability and a continuous-improvement culture and that address issues arising from the changing workforce, work environment, and competitive landscape. We think this is a winning strategy for all stakeholders.

I continue to believe that there are greater opportunities available for us to provide access to credit for consumers, reduce GSE credit risk and generate good returns for shareholders and we are committed to pursuing them. That is why when I look ahead, I am very excited and confident about the future of our company.

I would like to thank our shareholders and customers for their support and my fellow co-workers for the hard work and dedication than enabled our company to accomplish all that it did in 2019.

Respectfully,



Tim Mattke
Chief Executive Officer

From left: **Sal Miosi**, *President and Chief Operating Officer*
Steve Thompson, *Executive Vice President and Chief Risk Officer*
Tim Mattke, *Chief Executive Officer*
Paula Maggio, *Executive Vice President, General Counsel and Secretary*
Nathan Colson, *Executive Vice President and Chief Financial Officer*
Jay Hughes, *Executive Vice President - Sales and Business Development*

Five-Year Summary of Financial Information

Summary of operations

(In thousands, except per share data)	As of and for the Years Ended December 31, 2019	2018	2017	2016	2015
Revenues:					
Net premiums written	**$ 1,001,308**	$ 992,262	$ 997,955	$ 975,091	$ 1,020,277
Net premiums earned	**1,030,988**	975,162	934,747	925,226	896,222
Investment income, net	**167,045**	141,331	120,871	110,666	103,741
Realized investment (losses) gains, net including net impairment losses	**5,306**	(1,353)	231	8,921	28,361
Other revenue	**10,638**	8,708	10,205	17,670	12,964
Total revenues	**1,213,977**	1,123,848	1,066,054	1,062,483	1,041,288
Losses and expenses:					
Losses incurred, net	**118,575**	36,562	53,709	240,157	343,547
Change in premium deficiency reserve	**—**	—	—	—	(23,751)
Underwriting and other expenses	**194,769**	190,143	170,749	160,409	164,366
Interest expense	**52,656**	52,993	57,035	56,672	68,932
Loss on debt extinguishment	**—**	—	65	90,531	507
Total losses and expenses	**366,000**	279,698	281,558	547,769	553,601
Income before tax	**847,977**	844,150	784,496	514,714	487,687
Provision for (benefit from) income taxes (1)	**174,214**	174,053	428,735	172,197	(684,313)
Net income	**$ 673,763**	$ 670,097	$ 355,761	$ 342,517	$ 1,172,000
Weighted average common shares outstanding	**373,924**	386,078	394,766	431,992	468,039
Diluted income per share	**$ 1.85**	$ 1.78	$ 0.95	$ 0.86	$ 2.60
Balance sheet data					
Total investments	**$ 5,758,320**	$ 5,159,019	$ 4,990,561	$ 4,692,350	$ 4,663,206
Cash and cash equivalents	**161,847**	151,892	99,851	155,410	181,120
Total assets	**6,229,571**	5,677,802	5,619,499	5,734,529	5,868,343
Loss reserves	**555,334**	674,019	985,635	1,438,813	1,893,402
Short- and long-term debt	**575,867**	574,713	573,560	572,406	—
Convertible senior notes	**—**	—	—	349,461	822,301
Convertible junior subordinated debentures	**256,872**	256,872	256,872	256,872	389,522
Shareholders' equity	**4,309,234**	3,581,891	3,154,526	2,548,842	2,236,140
Book value per share	**12.41**	10.08	8.51	7.48	6.58

(1) In 2017, we remeasured our net deferred tax assets at the lower enacted corporate income tax rate under the Tax Act. In 2015 we reversed the valuation allowance against our deferred tax assets. See Note 12 – "Income Taxes" to our consolidated financial statements for a discussion of tax matters and their impact on our consolidated financial statements.

Other data

	Years Ended December 31,				
	2019	2018	2017	2016	2015
New primary insurance written ($ millions)	**$ 63,421**	$ 50,526	$ 49,123	$ 47,875	$ 43,031
New primary risk written ($ millions)	**$ 15,811**	$ 12,657	$ 12,217	$ 11,831	$ 10,824
IIF (at year-end) ($ millions)					
Direct primary IIF	**$ 222,295**	**$ 209,707**	$ 194,941	$ 182,040	$ 174,514
RIF (at year-end) ($ millions)					
Direct primary RIF	**$ 57,213**	**$ 54,063**	$ 50,319	$ 47,195	$ 45,462
Direct pool RIF					
With aggregate loss limits	**213**	228	236	244	271
Without aggregate loss limits	**163**	191	235	303	388
Primary loans in default ratios					
Policies in force	**1,079,578**	1,058,292	1,023,951	998,294	992,188
Loans in default	**30,028**	32,898	46,556	50,282	62,633
Percentage of loans in default	**2.78%**	3.11%	4.55%	5.04%	6.31%
Insurance operating ratios (GAAP)					
Loss ratio	**11.5%**	3.7%	5.7%	26.0%	38.3%
Underwriting Expense ratio	**18.4%**	18.2%	16.0%	15.3%	14.9%
Risk-to-capital ratio (statutory)					
Mortgage Guaranty Insurance Corporation	**9.7:1**	9.0:1	9.5:1	10.7:1	12.1:1
Combined insurance companies	**9.6:1**	9.8:1	10.5:1	12.0:1	13.6:1

Management's Discussion and Analysis of Financial Condition and Results of Operations

We have reproduced below the "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Risk Factors" and "Financial Statements and Supplementary Data" that appeared in our Annual Report on Form 10-K for the year ended December 31, 2019, which was filed with the Securities and Exchange Commission on February 24, 2020. Except for certain cross-references, we have not changed what appears below in those sections from what was in our Form 10-K. As a result, the Management's Discussion and Analysis, Risk Factors and Financial Statements and Supplementary Data are not updated to reflect any events or changes in circumstances that have occurred since our Annual Report on Form 10-K was filed with the SEC.

INTRODUCTION

As used below, "we" and "our" refer to MGIC Investment Corporation's consolidated operations or to MGIC Investment Corporation, as a separate entity, as the context requires. References to "we" and "our" in the context of debt obligations refer to MGIC Investment Corporation. See the "Glossary of terms and acronyms" for definitions and descriptions of terms used throughout this Annual Report. The Risk Factors discuss trends and uncertainties affecting us and are an integral part of the MD&A.

Forward Looking and Other Statements

As discussed under "Risk Factors" in this Annual Report, actual results may differ materially from the results contemplated by forward looking statements. We are not undertaking any obligation to update any forward looking statements or other statements we may make in the following discussion or elsewhere in this document even though these statements may be affected by events or circumstances occurring after the forward looking statements or other statements were made. Therefore, no reader of this document should rely on these statements being current as of any time other than the time at which our Annual Report on Form 10-K for the year ended December 31, 2019 was filed with the Securities and Exchange Commission.

OVERVIEW

This Overview of the MD&A highlights selected information and may not contain all of the information that is important to readers of this Annual Report. Hence, this Overview is qualified by the information that appears elsewhere in this Annual Report, including the other portions of the MD&A.

Through our subsidiary, MGIC, we are a leading provider of PMI in the United States, as measured by $222.3 billion of primary IIF on a consolidated basis at December 31, 2019.

Summary of financial results of MGIC Investment Corporation

(in millions, except per share data)	Year Ended December 31, 2019	2018	Change
Selected statement of operations data			
Total revenues	**$ 1,214.0**	$ 1,123.8	8 %
Losses incurred, net	**118.6**	36.6	224 %
Other operating and underwriting expenses, net	**182.8**	178.2	3 %
Income before tax	**848.0**	844.2	— %
Provision for income taxes	**174.2**	174.1	— %
Net income	**673.8**	670.1	1 %
Diluted income per share	**$ 1.85**	$ 1.78	4 %
Non-GAAP Financial Measures (1)			
Adjusted pre-tax operating income	**$ 842.9**	$ 845.5	— %
Adjusted net operating income	**669.7**	668.7	— %
Adjusted net operating income per diluted share	**$ 1.84**	$ 1.78	3 %

(1) See "Explanation and Reconciliation of our use of Non-GAAP Financial Measures."

SUMMARY OF 2019 FINANCIAL RESULTS

Net income of $673.8 million for 2019 increased by $3.7 million when compared to the prior year, and diluted income per share of $1.85 increased by 4% when compared to the prior year. These increases primarily reflect an increase in revenues and fewer weighted average diluted shares outstanding, which was partially offset by an increase in losses incurred. Adjusted net operating income of $669.7 million for 2019 (2018: $668.7 million) and adjusted net operating income per diluted share of $1.84 (2018: $1.78) each increased from the prior year primarily for the same reasons.

Losses incurred, net were $118.6 million, compared to $36.6 million the prior year. The increase was due to lower favorable loss reserve development on previously received delinquency notices when compared to the prior year, partially offset by a decrease in losses incurred on delinquency notices received in the current year. The estimated claim rate on new delinquency notices received in 2019 was 8% compared to 9% in 2018.

BUSINESS ENVIRONMENT

Economic conditions

Current U.S. economic conditions continue to support favorable housing fundamentals, such as low unemployment, strong consumer confidence, increasing household formations, and appreciating home values. We benefit from favorable housing fundamentals that increase home purchase activity and provide borrowers reliable, or increasing, financial resources.

As a result of the current and expected economic conditions, mortgage interest rates have been lower on average in 2019 compared to 2018. The lower mortgage rates materially increased refinancing activity but did not have a material impact on home purchasing activity in 2019. The homeownership rate increased slightly in 2019. The continued favorable housing fundamentals and the increase in refinancing transactions resulted in an increase in our NIW in 2019 when compared to 2018.

The level of unemployment, interest rates, and home prices may change in the future. For the possible effects of such changes, see our risk factors titled "If the volume of low down payment home mortgage originations declines, the amount of insurance that we write could decline," "Downturns in the domestic economy or declines in the value of borrowers' homes from their value at the time their loans closed may result in more homeowners defaulting and our losses increasing, with a corresponding decrease in our returns," and "Changes in interest rates, house prices or mortgage insurance cancellation requirements may change the length of time that our policies remain in force."

Mortgage lending

The past several years of favorable housing fundamentals and in our view, favorable risk characteristics of our recently insured loans have contributed to our declining delinquent inventory, and lower losses incurred and claims paid. Our most recent book years continue to experience a low level of losses.

After easing somewhat in 2018, lending standards became tighter again in 2019. The percentage of our NIW with DTI ratios over 45% increased significantly in 2018 compared to recent years but declined in 2019. Change in both years was primarily driven by adjustments to GSE underwriting guidelines for loans with DTI ratios over 45%. The increase in the percentage of our NIW from refinance transactions in 2019 due to the low interest rate environment also resulted in a lower percentage of our NIW with LTV ratios over 95% in 2019 compared with 2018.

Refer to "Mortgage Insurance Portfolio" for additional discussion of changes in our NIW mix during 2019.

Competition

PMI. The private mortgage insurance industry is highly competitive and is expected to remain so. We believe that we currently compete with other private mortgage insurers based on premium rates, underwriting requirements, financial strength (including based on credit or financial strength ratings), customer relationships, name recognition, reputation, strength of management teams and field organizations, the ancillary products and services provided to lenders and the effective use of technology and innovation in the delivery and servicing of our mortgage insurance products.

Pricing practices

Much of the competition in the industry in the last few years has centered on pricing practices which have included: (i) reductions in standard filed rates; (ii) use of customized rate plans (typically lower than standard rates) that are made available to lenders that meet certain criteria; and (iii) use of a spectrum of filed rates to allow for formulaic, risk-based pricing that may be quickly adjusted within certain parameters (referred to as "risk-based pricing systems"). We expect premium rates to continue to decline.

In 2019, we introduced MiQ, our risk-based pricing system that establishes our premium rates based on more risk attributes than were considered in 2018.

GSE Risk Share Transactions

In 2018, the GSEs initiated secondary mortgage market programs with loan level mortgage default coverage provided by various (re)insurers that are not mortgage insurers governed by PMIERs, and that are not selected by the lenders. Due to differences in policy terms, these programs may offer premium rates that are below prevalent single premium LPMI rates. While we view these programs as competing with traditional private mortgage insurance, we have participated in them and may participate in future GSE or other programs.

The GSEs (and other investors) have also used other forms of credit enhancement that did not involve traditional private mortgage insurance, such as engaging in credit-linked note transactions executed in the capital markets, or using other forms of debt issuances or securitizations that transfer credit risk directly to other investors, including competitors and an affiliate of MGIC; using other risk mitigation techniques in conjunction with reduced levels of private mortgage insurance coverage; or accepting credit risk without credit enhancement.

Government programs. PMI also competes against government mortgage insurance programs such as the FHA, VA, and USDA, primarily for lower FICO score business. While the combined market share of primary mortgage insurance written by government programs continued to exceed that written by PMI in 2019, PMI recaptured some share from those programs. The strong refinance markets increased PMI's share of refinances in 2019, and PMI premium rate reductions, have contributed to a PMI market share at its highest level since the financial crisis.

Refer to "Mortgage Insurance Portfolio" for additional discussion of the 2019 business environment and the impact it had on operating measures including NIW, IIF and RIF.

PMIERs

Since December 31, 2015 we have operated under the requirements of the PMIERs of the GSEs in order to insure loans delivered to or purchased by them. The PMIERs include financial requirements as well as business, quality control and certain transactional approval requirements. The financial requirements of the PMIERs require a mortgage insurer's "Available Assets" (generally only the most liquid assets of an insurer) to equal or exceed its "Minimum Required Assets" (which are based on an insurer's book of insurance in force, calculated from tables of factors with several risk dimensions, reduced for credit given for risk ceded under reinsurance transactions, and subject to a floor amount). Based on our application of the more restrictive PMIERs, MGIC's Available Assets under PMIERs totaled \$4.6 billion, an excess of \$1.2 billion over its Minimum Required Assets at December 31, 2019.

BUSINESS OUTLOOK FOR 2020

Our outlook for 2020 should be viewed against the backdrop of the business environment discussed above.

NIW

Our NIW is affected by total mortgage originations, the percentage of total mortgage originations using private mortgage insurance (the "PMI penetration rate"), and our market share within the PMI industry. As of late January 2020, the total mortgage origination forecasts indicate mortgage originations of \$2 trillion in 2020. The purchase originations are expected to increase in 2020, compared to 2019. Our NIW from refinance originations is expected to be lower in 2020 compared to a strong 2019. In 2019, the majority of the refinances were from recent books that experienced only a modest level of price appreciation. Therefore, many of the refinanced loans in 2019 required mortgage insurance. As a result, we expect the PMI penetration rate to decline somewhat in 2020.

The widespread use of loan level pricing systems by the PMI industry makes it more difficult to compare our rates to those offered by our competitors. We may not be aware of industry rate changes until we observe that our volume of NIW has changed. In addition, business under customized rate plans is awarded by certain customers for only limited periods of time. As a result, our NIW may fluctuate more than it had in the past.

IIF and RIF

Our IIF increased 6.0% in 2019 and we expect our IIF to grow in 2020. Our book of IIF is an important driver of our future revenues, and its growth is driven by our ability to generate NIW and retain existing policies in force, as measured by our persistency. Interest rates influence both our NIW and persistency. In a rising rate environment, total mortgage originations may decline, however, we would also expect policy cancellation rates to decline, and in turn increase persistency, although the impact generally lags the change in interest rates.

Results of operations

Premiums. Despite an increase in IIF, we expect our 2020 earned premiums (on a direct basis) to be lower than they were in 2019. Overall, our premium rates have been trending down in recent years, including in 2019, and the books of business written at lower rates represent an increasing percentage of our total IIF.

Our 2020 direct premiums written and net premiums earned are expected to be lower than 2019. Our net premiums earned will be impacted by the decrease in premium rates noted above and by the amount of premiums we cede under our quota share and excess of loss reinsurance transactions. The amount of profit commission we receive, which reduces the amount of premiums we cede, is variable year-to-year and is dependent on the amount of losses ceded. Our profit commission in recent years has benefited from favorable loss reserve development associated with delinquency notices received in prior years. The actual amount of premiums we cede in 2020 will be affected by any changes in our reinsurance coverage, such as the addition of new excess of loss coverage.

Factors that affect the amount of premiums we earn from our IIF are further discussed in our "Consolidated Results of Operations - Premium yield."

Investment income. Net investment income is a material contributor to our results of operations. We expect net investment income in 2020 to be comparable to 2019. We expect our invested assets will remain relatively flat as we return capital to our shareholders (see "Capital" below). The amount of investment income will be impacted by the change in the yield we can earn on investments.

Losses. We expect 2020 losses incurred with respect to delinquency notices received in 2020 to be lower than the comparable amount for 2019 as we expect to receive fewer new delinquency notices in 2020.

Income taxes. We expect our 2020 effective tax rate to be approximately 21%.

CAPITAL

MGIC dividend payments to our holding company

In 2019 and 2018, MGIC paid a total of $280 million and $220 million, respectively, in dividends to our holding company. We have received the appropriate approvals for MGIC to pay to our holding company, in the first quarter of 2020, a special dividend of $320 million and a quarterly dividend of $70 million. We expect to use most of the proceeds of the special dividend to repurchase our common stock as discussed below. We expect MGIC to pay quarterly dividends totaling at least $280 million per year, subject to approval by MGIC's Board of Directors. We ask the OCI not to object before MGIC pays dividends.

Share repurchase programs

In 2019 and 2018, we repurchased approximately 8.7 million and 16.0 million shares of our common stock, respectively, using approximately $114 million and $175 million, respectively, of holding company resources. We received approval to repurchase up to an additional $300 million of our common stock through the end of 2021. The following table shows details of our share repurchase programs.

Repurchase Program	Expiration Date	Repurchased (in millions)	Authorization Remaining (in millions)
2018 Authorization	December 31, 2019	200	
2019 Authorization	December 31, 2020	89	111
2020 Authorization	December 31, 2021		300

From January 1, 2020, through February 19, 2020, we repurchased approximately 2.5 million shares of our common stock for approximately $35 million.

Repurchases may be made from time to time on the open market (including through 10b5-1 plans) or through privately negotiated transactions. The repurchase programs may be suspended for periods or discontinued at any time. As of December 31, 2019, we had approximately 347 million shares of common stock outstanding.

Dividends to shareholders

In 2019, MGIC paid dividends of $0.06 per common share to its shareholders in the third and fourth quarters totaling $42 million. On January 27, 2020, our Board of Directors declared a quarterly cash dividend of $0.06 per common share to shareholders of record on February 11, 2020, payable on February 28, 2020.

For additional information about how the payment of dividends by our holding company will result in an adjustment to the conversion rate and price of our convertible securities, see our risk factor titled "*Your ownership in our company may be diluted by additional capital that we raise or if the holders of our outstanding convertible debt convert that debt into shares of our common stock.*"

GSEs

We must comply with a GSE's PMIERs to be eligible to insure loans delivered to or purchased by that GSE. The PMIERs include financial requirements, as well as business, quality control and certain transaction approval requirements. The financial requirements of the PMIERs require a mortgage insurer's "Available Assets" (generally only the most liquid assets of an insurer) to equal or exceed its "Minimum Required Assets" (which are based on an insurer's book of insurance in force and are calculated from tables of factors with several risk dimensions, reduced for credit given for risk ceded under reinsurance transactions, and are subject to a floor amount).

If MGIC ceases to be eligible to insure loans purchased by one or both of the GSEs, it would significantly reduce the volume of our new business writings. Factors that may negatively impact MGIC's ability to continue to comply with the financial requirements of the PMIERs include the following:

- The GSEs may make the PMIERs more onerous in the future. The PMIERs provide that the factors that determine Minimum Required Assets will be updated periodically, or as needed if there is a significant change in macroeconomic conditions or loan performance. We do not anticipate that the regular periodic updates will occur more frequently than once every two years. The PMIERs state that the GSEs will provide notice 180 days prior to the effective date of updates to the factors; however, the GSEs may amend any portion of the PMIERs at any time.
- There may be future implications for PMIERs based upon forthcoming regulatory capital requirements for the GSEs. In 2018, the FHFA issued a proposed capital rule for the GSEs, which included a framework for determining the capital relief allowed to the GSEs for loans with private mortgage insurance. The FHFA recently indicated that it plans to re-propose a capital rule as early as the first quarter of 2020, although the timing and content of the proposal is uncertain. Further, any changes to the GSEs' capital and liquidity requirements resulting from the Treasury Housing Reform Plan could have future implications for PMIERs.
- Our future operating results may be negatively impacted by the matters discussed in our risk factors. Such matters could decrease our revenues, increase our losses or require the use of assets, thereby creating a shortfall in Available Assets.
- Should capital be needed by MGIC in the future, capital contributions from our holding company may not be available due to competing demands on holding company resources, including for repayment of debt.

Our reinsurance transactions enable us to earn higher returns on our business than we would without them because fewer Available Assets are required to be held under PMIERs. However, reinsurance may not always be available to us; or available on similar terms, and our quota share reinsurance subjects us to counterparty credit risk. The total credit under the PMIERS for risk ceded under our reinsurance transactions is subject to a modest reduction. Our existing reinsurance transactions are subject to periodic review by the GSEs and there is a risk we will not receive our current level of credit in future periods for the risk ceded under them. In addition, we may not receive the same level of credit under future transactions that we receive under existing transactions.

State Regulations

The insurance laws of 16 jurisdictions, including Wisconsin, our domiciliary state, require a mortgage insurer to maintain a minimum amount of statutory capital relative to its RIF (or a similar measure) in order for the mortgage insurer to continue to write new business. We refer to these requirements as the "State Capital Requirements." While they vary among jurisdictions, the most common State Capital Requirements allow for a maximum risk-to-capital ratio of 25 to 1. A risk-to-capital ratio will increase if (i) the percentage decrease in capital exceeds the percentage decrease in insured risk, or (ii) the percentage increase in capital is less than the percentage increase in insured risk. Wisconsin does not regulate capital by using a risk-to-capital measure but instead requires an MPP. The "policyholder position" of a mortgage insurer is its net worth or surplus, contingency reserve, and a portion of the reserve for unearned premiums.

At December 31, 2019, MGIC's risk-to-capital ratio was 9.7 to 1, below the maximum allowed by the jurisdictions with State Capital Requirements, and its policyholder position was $3.0 billion above the required MPP of $1.7 billion. The calculation of our risk-to-capital ratio and MPP reflect credit for the risk ceded under our QSR Transactions and Home Re Transactions. It is possible that under the revised State Capital Requirements discussed below, MGIC will not be allowed full credit for the risk ceded to the reinsurers. If MGIC is not allowed an agreed level of credit under either the State Capital Requirements or the PMIERs, MGIC may terminate the reinsurance transactions, without penalty. At this time, we expect MGIC to continue to comply with the current State Capital Requirements; however, refer to our risk factor titled "State capital requirements may prevent us from continuing to write new insurance on an uninterrupted basis" for more information about matters that could negatively affect such compliance.

At December 31, 2019, the risk-to-capital ratio of our combined insurance operations (which includes a reinsurance affiliate) was 9.6 to 1.

The NAIC has previously announced plans to revise the minimum capital and surplus requirements for mortgage insurers that are provided for in its Mortgage Guaranty Insurance Model Act. In December 2019, a working group of state regulators released an exposure draft of a revised Mortgage Guaranty Insurance Model Act and a risk-based capital framework to establish capital requirements for mortgage insurers, although no date has been established by which the NAIC must propose revisions to the capital requirements and certain items have not yet been completely addressed by the framework, including the treatment of ceded risk and minimum capital floors. Currently we believe that the PMIERs contain more restrictive capital requirements than the draft Mortgage Guaranty Insurance Model Act in most circumstances.

GSE REFORM

The FHFA has been the conservator of the GSEs since 2008 and has the authority to control and direct their operations. The increased role that the federal government has assumed in the residential housing finance system through the GSE conservatorship may increase the likelihood that the business practices of the GSEs change, including through administrative action, in ways that have a material adverse effect on us and that the charters of the GSEs are changed by new federal legislation.

In September 2019, at the direction of President Trump, the U.S. Treasury Department ("Treasury") released the “Treasury Housing Reform Plan” (the "Plan"). The Plan recommends administrative and legislative reforms for the housing finance system, with such reforms intended to achieve the goals of ending the conservatorships of the GSEs; increasing competition and participation by the private sector in the mortgage market including by authorizing the FHFA to approve additional guarantors of conventional mortgages in the secondary market, simplifying the qualified mortgage ("QM") rule of the Consumer Financial Protection Bureau ("CFPB"), transferring risk to the private sector, and eliminating the "GSE Patch" (discussed below); establishing regulation of the GSEs that safeguards their safety and soundness and minimizes the risks they pose to the financial stability of the United States; and providing that the federal government is properly compensated for any explicit or implicit support it provides to the GSEs or the secondary housing finance market. Also in September 2019, the Treasury and FHFA entered into a letter agreement that will allow the GSEs to remit less of their earnings to the government, which will help them rebuild their capital.

The impact of the Plan on private mortgage insurance is unclear. The Plan does not refer to mortgage insurance explicitly; however, it refers to a requirement for credit enhancement on high LTV ratio loans, which is a requirement of the current GSE charters. The Plan also indicates that the FHFA should continue to support efforts to expand credit risk transfer ("CRT") programs and should encourage the GSEs to continue to engage in a diverse mix of economically sensible CRT programs, including by increasing reliance on institution-level capital (presumably, as distinguished from capital obtained in the capital markets). For more information about CRT programs, see our risk factor titled "*The amount of insurance we write could be adversely affected if lenders and investors select alternatives to private mortgage insurance.*"

The current GSE Patch expands the definition of QM under the Truth in Lending Act (Regulation Z) ("TILA") to include mortgages eligible to be purchased by the GSEs, even if the mortgages do not meet the debt-to-income ("DTI") ratio limit of 43% that is included in the standard QM definition. Originating a QM may provide a lender with legal protection from lawsuits that claim the lender failed to verify a borrower’s ability to repay. The GSE Patch is scheduled to expire no later than January 2021. Approximately 27% and 22% of our NIW in the first and second halves of 2019, respectively, was on loans with DTI ratios greater than 43%. However, it is possible that expiration of the GSE Patch will be delayed and that not all future loans with DTI ratios greater than 43% will be affected by such expiration. In this regard, we note that the CFPB recently indicated that it expects to issue for comment, no later than May 2020, a proposed new "ability-to-repay" ("ATR") rule that would replace the use of DTI ratio in the definition of QM with an alternative measure, such as a pricing threshold. The CFPB also indicated that it would extend the expiration of the GSE Patch until the earlier of the effective date of the proposed alternative or until one of the GSEs exits conservatorship.

We insure loans that do not qualify as QMs; however, we are unsure the extent to which lenders will make non-QM loans because they will not be entitled to the presumptions about compliance with the ATR rule that the law allows with respect to QM loans. We are also unsure the extent to which lenders will purchase private mortgage insurance for loans that cannot be sold to the GSEs.

The QM definition for loans insured by the FHA, which was issued by the Department of Housing and Urban Development (“HUD”), is less restrictive than the CFPB’s definition in certain respects, including that (i) it has no DTI ratio limit, and (ii) it allows lenders certain presumptions about compliance with the ATR rule on higher priced loans. It is possible that, in the future, lenders will prefer FHA-insured loans to loans insured by private mortgage insurance as a result of the FHA’s less restrictive QM definition. However, in September 2019, HUD released its Housing Reform Plan and indicated that the FHA should refocus on its mission of providing housing finance support to low- and moderate-income families that cannot be fulfilled through traditional underwriting. In addition, Treasury's Plan indicated that the FHFA and HUD should develop and implement a specific understanding as to the appropriate roles and overlap between the GSEs and FHA, including with respect to the GSEs’ acquisitions of high LTV ratio and high DTI ratio loans.

For additional information about the business practices of the GSEs, see our risk factor titled “Changes in the business practices of the GSEs, federal legislation that changes their charters or a restructuring of the GSEs could reduce our revenues or increase our losses.”

LOAN MODIFICATIONS AND OTHER SIMILAR PROGRAMS

The federal government, including through the U.S. Department of the Treasury and the GSEs, and several lenders have modification and refinance programs to make outstanding loans more affordable to borrowers with the goal of reducing the number of foreclosures. These programs included HAMP, which expired at the end of 2016, and HARP, which expired at the end of

2018. The GSEs have introduced other loan modifications programs to replace HAMP and HARP.

We cannot determine the total benefit we may derive from loan modification programs, particularly given the uncertainty around the re-default rates for defaulted loans that have been modified. Our loss reserves do not account for potential re-defaults of current loans.

The following table shows the percentage of our primary RIF that has been modified as of December 31, 2019.

Modifications

Policy Year	HARP [1] Modifications	HAMP & Other Modifications
2003 and Prior	9.9%	49.9%
2004	16.4%	53.6%
2005	24.0%	50.9%
2006	28.0%	47.6%
2007	40.6%	36.3%
2008	57.8%	22.6%
2009	51.9%	11.7%
2010 - 2019	—%	0.5%
Total	4.6%	5.5%

(1) Includes proprietary programs that are substantially the same as HARP.

Approximately 10.1% of our total primary RIF has been modified as of December 31, 2019. Based on loan count at December 31, 2019, the loans associated with 97.6% of all HARP modifications and 79.5% of HAMP and other modifications were current.

FACTORS AFFECTING OUR RESULTS

Our results of operations are affected by:

Premiums written and earned

Premiums written and earned in a year are influenced by:

- NIW, which increases IIF. Many factors affect NIW, including the volume of low down payment home mortgage originations and competition to provide credit enhancement on those mortgages from the FHA, the VA, other mortgage insurers, and other alternatives to mortgage insurance, including GSE programs that may reduce or eliminate the demand for mortgage insurance. NIW does not include loans previously insured by us that are modified, such as loans modified under HARP.

- Cancellations, which reduce IIF. Cancellations due to refinancing are affected by the level of current mortgage interest rates compared to the mortgage coupon rates throughout the in force book, current home values compared to values when the loans in the in force book were insured and the terms on which mortgage credit is available. Home price appreciation can give homeowners the right to cancel mortgage insurance on their loans if sufficient home equity is achieved. Cancellations also result from policy rescissions, which require us to return any premiums received on the rescinded policies, and claim payments, which require us to return any premium received on the related policies from the date of default on the insured loans. Cancellations of single premium policies, which are generally non-refundable, result in immediate recognition of any remaining unearned premium.

- Premium rates, which are affected by product type, competitive pressures, the risk characteristics of the insured loans, the percentage of coverage on the insured loans, and PMIERs capital requirements. The substantial majority of our monthly and annual mortgage insurance premiums are under premium plans for which, for the first ten years of the policy, the amount of premium is determined by multiplying the initial premium rate by the original loan balance; thereafter, the premium rate resets to a lower rate used for the remaining life of the policy. However, for loans that have utilized HARP, the initial ten-year period resets as of the date of the HARP transaction. The remainder of our monthly and annual premiums are under premium plans for which premiums are determined by a fixed percentage of the loan's amortizing balance over the life of the policy.

- Premiums ceded, net of a profit commission, under our QSR Transactions, and premiums ceded under our Home Re Transactions. See Note 9 – "Reinsurance" to our consolidated financial statements for a discussion of our reinsurance transactions.

Premiums earned are generated by the insurance that is in force during all or a portion of the period. A change in the average IIF in the current period compared to an earlier period is a factor that will increase (when the average in force is higher) or reduce (when it is lower) premiums written and earned in the current period, although this effect may be enhanced (or mitigated) by differences in the average premium rate between the two periods, as well as by premiums that are returned or expected to be returned in connection with claim payments and rescissions, and premiums ceded under reinsurance transactions. Also, NIW and cancellations during a period will generally have a greater effect on premiums earned in subsequent periods than in the period in which these events occur.

Investment income

Our investment portfolio is composed principally of investment grade fixed income securities. The principal factors that influence investment income are the size of the portfolio and its yield. As measured by amortized cost (which excludes changes in fair value, such as from changes in interest rates), the size of the investment portfolio is mainly a function of cash generated from (or used in) operations, such as NPW, investment income, net claim payments and expenses, and cash provided by (or used for) non-operating activities, such as debt or stock issuances or repurchases.

Losses incurred

Losses incurred are the current expense that reflects estimated payments that will ultimately be made as a result of delinquencies on insured loans. As explained under "Critical Accounting Policies" below, we recognize an estimate of this expense only for delinquent loans through case reserves. The level of new delinquencies has historically followed a seasonal pattern, with new delinquencies in the first part of the year lower than new delinquencies in the latter part of the year, though this pattern can be affected by the state of the economy and local housing markets. Losses incurred are generally affected by:

- The state of the economy, including unemployment and housing values, each of which affects the likelihood that loans will become delinquent and whether loans that are delinquent cure their delinquency.
- The product mix of the in force book, with loans having higher risk characteristics generally resulting in higher delinquencies and claims.
- The size of loans insured, with higher average loan amounts tending to increase losses incurred.
- The percentage of coverage on insured loans, with deeper average coverage tending to increase incurred losses.
- The rate at which we rescind policies or curtail claims. Our estimated case loss reserves incorporate our estimates of future rescissions of policies and curtailments of claims, and reversals of rescissions and curtailments. We collectively refer to such rescissions and denials as "rescissions" and variations of this term. We call reductions to claims "curtailments."
- The distribution of claims over the life of a book. Historically, the first few years after loans are originated are a period of relatively low claims, with claims increasing substantially for several years subsequent and then declining, although persistency, the condition of the economy, including unemployment and housing prices, and other factors can affect this pattern. For example, a weak economy or housing value declines can lead to claims from older books increasing, continuing at stable levels or experiencing a lower rate of decline. See further information under "Mortgage insurance earnings and cash flow cycle" below.
- Losses ceded under reinsurance agreements. See Note 9 – "Reinsurance" to our consolidated financial statements for a discussion of our reinsurance agreements.

Underwriting and other expenses

Underwriting and other expenses includes items such as employee compensation, fees for professional services, depreciation and maintenance expense, and premium taxes, and are reported net of ceding commissions associated with our reinsurance agreements. Employee compensation expenses are variable due to share-based compensation, changes in benefits, and headcount (which can fluctuate due to volume). See Note 9 – "Reinsurance" to our consolidated financial statements for a discussion of ceding commission on our reinsurance agreements.

Interest expense

Interest expense reflects the interest associated with our outstanding debt obligations and former credit facility discussed in Note 7 – "Debt" to our consolidated financial statements and under "Liquidity and Capital Resources" below.

Other

Certain activities that we do not consider being part of our fundamental operating activities may also impact our results of operations and are described below.

Net realized investment gains (losses)

Fixed income securities. Realized investment gains and losses are a function of the difference between the amount received on the sale of a fixed income security and the fixed income security's cost basis, as well as any "other than temporary" impairments ("OTTI") recognized in earnings. The amount received on the sale of fixed income securities is affected by the coupon rate of the security compared to the yield of comparable securities at the time of sale.

Equity securities. Effective January 1, 2018, realized investment gains and losses are accounted for as a function of the periodic change in fair value. For 2017, realized investment gains and losses were accounted for as a function of the difference between the amount received on the sale of an equity security and the equity security's cost basis, as well as any OTTI recognized in earnings.

Loss on debt extinguishment

At times, we may undertake activities to enhance our capital position, improve our debt profile and/or reduce potential dilution from our outstanding convertible debt. Extinguishing our outstanding debt obligations early through these discretionary activities may result in losses primarily driven by the payment of consideration in excess of our carrying value.

Refer to "Explanation and reconciliation of our use of Non-GAAP financial measures" below to understand how these items impact our evaluation of our core financial performance.

MORTGAGE INSURANCE EARNINGS AND CASH FLOW CYCLE

In general, the majority of any underwriting profit that a book generates occurs in the early years of the book, with the largest portion of any underwriting profit realized in the first year following the year the book was written. Subsequent years of a book may result in either underwriting profit or underwriting losses. This pattern of results typically occurs because relatively few of the incurred losses on delinquencies that a book will ultimately experience typically occur in the first few years of the book, when premium revenue is highest, while subsequent years are affected by declining premium revenues, as the number of insured loans decreases (primarily due to loan prepayments) and increasing losses. The typical pattern is also a function of premium rates generally resetting to lower levels after ten years.

EXPLANATION AND RECONCILIATION OF OUR USE OF NON-GAAP FINANCIAL MEASURES

NON-GAAP FINANCIAL MEASURES

We believe that use of the Non-GAAP measures of adjusted pre-tax operating income (loss), adjusted net operating income (loss) and adjusted net operating income (loss) per diluted share facilitate the evaluation of the company's core financial performance thereby providing relevant information to investors. These measures are not recognized in accordance with GAAP and should not be viewed as alternatives to GAAP measures of performance.

Adjusted pre-tax operating income (loss) is defined as GAAP income (loss) before tax, excluding the effects of net realized investment gains (losses), gain (loss) on debt extinguishment, net impairment losses recognized in income (loss) and infrequent or unusual non-operating items, where applicable.

Adjusted net operating income (loss) is defined as GAAP net income (loss) excluding the after-tax effects of net realized investment gains (losses), gain (loss) on debt extinguishment, net impairment losses recognized in income (loss), and infrequent or unusual non-operating items, where applicable, which include the effects of changes in our deferred tax valuation allowance. The amounts of adjustments to components of pre-tax operating income (loss) are tax effected using a federal statutory income tax rate of 21% for 2019 and 2018 and 35% for 2017.

Adjusted net operating income (loss) per diluted share is calculated in a manner consistent with the accounting standard regarding earnings per share, by dividing (i) adjusted net operating income (loss) after making adjustments for interest expense on convertible debt, whenever the impact is dilutive, by (ii) diluted weighted average common shares outstanding, which reflects share dilution from unvested restricted stock units and from convertible debt when dilutive under the "if-converted" method.

Although adjusted pre-tax operating income (loss) and adjusted net operating income (loss) exclude certain items that have occurred in the past and are expected to occur in the future, the excluded items represent items that are: (1) not viewed as part of the operating performance of our primary activities; or (2) impacted by both discretionary and other economic or regulatory factors and are not necessarily indicative of operating trends, or both. These adjustments, along with the reasons for their treatment, are described below. Trends in the profitability of our fundamental operating activities can be more clearly identified without the fluctuations of these excluded items. Other companies may calculate these measures differently. Therefore, their measures may not be comparable to those used by us.

(1) *Net realized investment gains (losses).* The recognition of net realized investment gains or losses can vary significantly across periods as the timing of individual securities sales is highly discretionary and is influenced by such factors as market opportunities, our tax and capital profile, and overall market cycles.

(2) *Gains and losses on debt extinguishment.* Gains and losses on debt extinguishment result from discretionary activities that are undertaken to enhance our capital position, improve our debt profile, and/or reduce potential dilution from our outstanding convertible debt.

(3) *Net impairment losses recognized in earnings.* The recognition of net impairment losses on investments can vary significantly in both size and timing, depending on market credit cycles, individual issuer performance, and general economic conditions.

(4) *Infrequent or unusual non-operating items.* Our income tax expense for 2017 reflects the remeasurement of our net deferred tax assets to reflect the lower corporate income tax rate under the Tax Act. Our 2018 and 2017 income tax expense also includes amounts related to our IRS dispute and is related to past transactions which are non-recurring in nature and are not part of our primary operating activities.

Non-GAAP reconciliations

Reconciliation of Income before tax / Net income to Adjusted pre-tax operating income / Adjusted net operating income:

	Years Ended December 31,								
	2019			2018			2017		
(in thousands)	**Pre-tax**	**Tax Effect**	**Net (after-tax)**	Pre-tax	Tax Effect	Net (after-tax)	Pre-tax	Tax Effect	Net (after-tax)
Income before tax / Net income	**$847,977**	**$174,214**	**$ 673,763**	844,150	174,053	670,097	784,496	428,735	355,761
Adjustments:									
Additional income tax provision related to the rate decrease included in the Tax Act	**—**	**—**	**—**	—	—	—	—	(132,999)	132,999
Additional income tax benefit (provision) related to IRS litigation	**—**	**—**	**—**	—	2,462	(2,462)	—	(29,039)	29,039
Net realized investment (gains) losses	**(5,108)**	(1,073)	**(4,035)**	1,353	284	1,069	(231)	(81)	(150)
Loss on debt extinguishment	**—**	**—**	**—**	—	—	—	65	23	42
Adjusted pre-tax operating income / Adjusted net operating income	**$842,869**	**$173,141**	**$ 669,728**	$ 845,503	$ 176,799	$ 668,704	$ 784,330	$ 266,639	$ 517,691

Reconciliation of Net income per diluted share to Adjusted net operating income per diluted share:

	2019	2018	2017
Weighted average diluted shares outstanding	**373,924**	386,078	394,766
Net income per diluted share	**$ 1.85**	$ 1.78	$ 0.95
Additional income tax provision related to the rate decrease included in the Tax Act	**—**	—	0.34
Additional income tax (benefit) provision related to IRS litigation	**—**	(0.01)	0.07
Net realized investment (gains) losses	**(0.01)**	—	—
Loss on debt extinguishment	**—**	—	—
Adjusted net operating income per diluted share [1]	**$ 1.84**	$ 1.78	$ 1.36

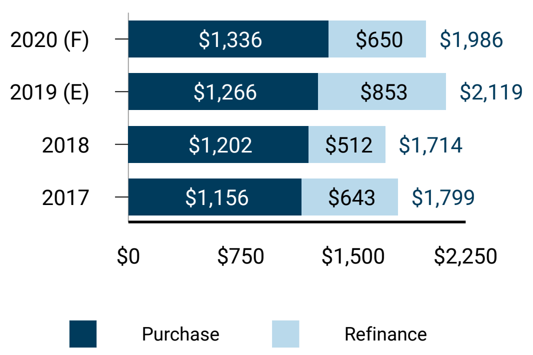
(1) For the Year Ended December 31, 2018, the Reconciliation of Net income per diluted share to Adjusted net operating income per diluted share does not foot due to rounding of the adjustments.

MORTGAGE INSURANCE PORTFOLIO

MORTGAGE ORIGINATIONS

The primary mortgage insurance market is affected by total mortgage originations and PMI's market share. Total originations are estimated to have increased in 2019 compared with 2018, due to higher refinance originations, as well as higher purchase originations. Refinance originations increased as a result of lower mortgage interest rates on average; while continued solid housing fundamentals, such as household formations, low unemployment, and attractive mortgage rates supported the increase in purchase originations. Total mortgage originations in 2020 are forecast to be down modestly compared to 2019 estimated levels, primarily due to an expected decrease in refinancing transactions partially offset by an increase in purchase originations. We expect PMI's market share to decline slightly as 2019 was a particularly strong year for PMI's market share and competition from government mortgage insurance programs and GSE alternative risk share transactions will also continue to impact the PMI's market share. In consideration of these factors, and our market share within the PMI industry, our 2020 NIW is expected to decrease from 2019.

Mortgage originations (in billions)



E - Estimated, F- Forecast

Source: GSEs and MBA estimates/forecasts as of December 2019 and January 2020. Amounts represent the average of all sources.

Estimated total of PMI, FHA, USDA, and VA primary mortgage insurance

(in billions)	**2019**	2018	2017
Primary mortgage insurance	**$859**	$662	$701

Source: *Inside Mortgage Finance* - February 21, 2020 or SEC filings. Includes HARP NIW.

MORTGAGE INSURANCE INDUSTRY

We compete against five other private mortgage insurers, as well as government mortgage insurance programs, including those offered by the FHA, VA, and USDA. Refer to "Overview - Business Environment - Competition" for a discussion of our competitive position.

The PMI industry increased its share of the primary mortgage insurance market in 2019 and 2018, each when compared to the respective prior year. PMI's share increased primarily due to a higher percentage of refinances; PMI premium rate reductions in recent periods, which increases PMI's competitiveness compared to government programs; and an increase in 97% LTV loan offerings from lenders that sell loans to the GSEs, which provided an alternative to similar FHA loan programs for qualified borrowers.

Estimated primary MI market share

(% of total primary MI volume)	**2019**	2018	2017
PMI	**44.7%**	44.1%	38.6%
FHA	**28.2%**	30.5%	33.9%
VA	**25.2%**	22.9%	24.7%
USDA	**1.9%**	2.5%	2.8%

Source: *Inside Mortgage Finance* - February 21, 2020. Includes HARP NIW.

Our estimated market share within the PMI industry declined in 2019 when compared to 2018, due to the competitive dynamics in the industry, including, but not limited to, the migration to a more dynamic pricing approach across the industry. For additional discussion of the competitive landscape of the industry refer to "Overview - Business Environment - Competition."

Estimated MGIC market share

(% of total primary private MI volume)	**2019**	2018	2017
MGIC	**16.5%**	17.4%	18.3%

Source: *Inside Mortgage Finance* - February 21, 2020 or SEC filings. Excludes HARP NIW.

NEW INSURANCE WRITTEN

NIW for 2019 continued to have what we believe are favorable risk characteristics. The following tables provide information about characteristics of our NIW.

Primary NIW by FICO score

	Years Ended December 31,		
(% of primary NIW)	**2019**	2018	2017
760 and greater	**44.9%**	42.2%	41.8%
740 - 759	**18.7%**	17.1%	16.8%
720 - 739	**13.9%**	14.5%	14.1%
700 - 719	**10.8%**	11.9%	11.9%
680 - 699	**7.0%**	7.2%	8.1%
660 - 679	**2.7%**	3.8%	4.0%
640 - 659	**1.4%**	2.3%	2.3%
639 and less	**0.6%**	1.0%	1.0%
Total	**100%**	100%	100%

Primary NIW by loan-to-value

	Years Ended December 31,		
(% of primary NIW)	**2019**	2018	2017
95.01% and above	**12.9%**	16.0%	10.7%
90.01% to 95.00%	**43.5%**	43.3%	46.5%
85.01% to 90.00%	**29.5%**	28.7%	29.5%
80.01% to 85%	**14.1%**	12.0%	13.3%

An increase in the percentage of refinances, discussed above and home price appreciation, partially offset by an increase in 97% LTV programs offered by lenders, have decreased the percentage of our NIW with LTV ratios greater than 95% in 2019 compared to 2018.

Primary NIW by debt-to-income ratio

	Years Ended December 31,		
(% of primary NIW)	**2019**	2018 (1)	2017
45.01% and above	**13.5%**	19.6%	10.4%
38.01% to 45.00%	**32.9%**	33.1%	35.8%
38.00% and below	**53.6%**	47.3%	53.8%

(1) In 2018, we started considering DTI ratios when setting our premium rates, and we changed our methodology for calculating DTI ratios for pricing and eligibility purposes to exclude the impact of mortgage insurance premiums. As a result of this change, loan originators may have changed the information they provide to us. Although we have changed our operational procedures to account for this, we cannot be sure that the DTI ratio we report for each loan beginning in late 2018 includes the related mortgage insurance premiums in the calculation.

In 2019, the percentage of our NIW on loans with DTI ratios over 45% was 14%, down significantly from 20% in 2018. We believe the decline in 2019 was primarily due to changes in GSE underwriting guidelines, but was also due in part to our underwriting guideline and pricing changes associated with such loans. The higher percentage in 2018 was primarily driven by adjustments to GSE underwriting guidelines for loans with DTI ratios over 45%.

We are continuing to monitor our exposure to such loans and may take further action.

Primary NIW by policy payment type

	Years Ended December 31,		
(% of primary NIW)	**2019**	2018	2017
Monthly premiums	**84.4%**	83.0%	80.8%
Single premiums	**15.5%**	16.8%	19.0%
Annual Premiums	**0.1%**	0.2%	0.2%

Primary NIW by type of mortgage

	Years Ended December 31,		
(% of primary NIW)	**2019**	2018	2017
Purchases	**80.9%**	93.2%	88.6%
Refinances	**19.1%**	6.8%	11.4%

IIF AND RIF

Our IIF grew 6.0% in 2019, and 7.6% in 2018, as NIW more than offset policy cancellations. Cancellation activity is primarily due to refinancing activity, but is also impacted by rescissions, cancellations due to claim payment, and policies cancelled when borrowers achieve the required amount of home equity. Refinancing activity has historically been affected by the level of mortgage interest rates and the level of home price appreciation. Cancellations generally move inversely to the change in the direction of interest rates, although they generally lag a change in direction.

Persistency. Our persistency at December 31, 2019 was 75.8% compared to 81.7% at December 31, 2018. Since 2000, our year-end persistency ranged from a high of 84.7% at December 31, 2009 to a low of 47.1% at December 31, 2003.

Insurance in force and risk in force

	Years Ended December 31,		
($ in billions)	**2019**	2018	2017
NIW	**$ 63.4**	$ 50.5	$ 49.1
Cancellations	**(50.8)**	(35.7)	(36.2)
Increase in primary IIF	**$ 12.6**	$ 14.8	$ 12.9
Direct primary IIF as of December 31,	**$ 222.3**	$ 209.7	$ 194.9
Direct primary RIF as of December 31,	**$ 57.2**	$ 54.1	$ 50.3

CREDIT PROFILE OF OUR PRIMARY RIF

The proportion of our total primary RIF written after 2008 has been steadily increasing in proportion to our total primary RIF. Our 2009 and later books possess significantly improved risk characteristics when compared to our 2005-2008 books. The credit profile of our pre-2009 RIF has benefited from modification and refinance programs making outstanding loans more affordable to borrowers with the goal of reducing the number of foreclosures. These programs included HAMP and HARP, which expired at the end of 2016 and 2018, respectively, but have been replaced by other GSE modification programs. HARP allowed borrowers who were not delinquent, but who may not otherwise have been able to refinance their loans under the current GSE underwriting standards due to, for example, the current LTV exceeding 100%, to refinance and lower their note rate. Loans associated with 97.6% of all our HARP modifications were current as of December 31, 2019. The aggregate of our 2009 and later books and our HARP modifications accounted for approximately 92% of our total primary RIF at December 31, 2019.

The composition of our primary RIF as of December 31, 2019, 2018, and 2017 is shown below.

Primary risk in force

	December 31, 2019		December 31, 2018		December 31, 2017	
($ in millions)	**RIF**	**% of RIF**	RIF	% of RIF	RIF	% of RIF
2009+	**$ 50,044**	**88%**	$ 45,083	83%	$ 39,248	78%
2005 - 2008 (HARP)	**2,485**	**4%**	3,109	5%	3,773	7%
Other years (HARP)	**165**	**—%**	229	1%	308	1%
Subtotal	**52,694**	**92%**	48,421	89%	43,329	86%
2005-2008 (Non-HARP)	**3,868**	**7%**	4,796	9%	5,894	12%
Other years (Non-HARP)	**651**	**1%**	846	2%	1,095	2%
Subtotal	**4,519**	**8%**	5,642	11%	6,989	14%
Total Primary RIF	**$ 57,213**	**100%**	$ 54,063	100%	$ 50,318	100%

POOL AND OTHER INSURANCE

MGIC has written no new pool insurance since 2008, however, for a variety of reasons, including responding to capital market alternatives to private mortgage insurance and customer demands, MGIC may write pool risk in the future. Our direct pool RIF was $376 million ($213 million on pool policies with aggregate loss limits and $163 million on pool policies without aggregate loss limits) at December 31, 2019 compared to $419 million ($228 million on pool policies with aggregate loss limits and $191 million on pool policies without aggregate loss limits) at December 31, 2018. If claim payments associated with a specific pool reach the aggregate loss limit, the remaining IIF within the pool would be cancelled and any remaining defaults under the pool would be removed from our default inventory.

In connection with the GSEs' credit risk transfer programs, an insurance subsidiary of MGIC provides insurance and reinsurance covering portions of the credit risk related to certain reference pools of mortgages acquired by the GSEs. Our RIF, as reported to us, related to these programs was approximately $182 million and $53 million as of December 31, 2019 and December 31, 2018, respectively.

CONSOLIDATED RESULTS OF OPERATIONS

The following section of the MD&A provides a comparative discussion of our Consolidated Results of Operations for the three-year period ended December 31, 2019. For a discussion of the Critical Accounting Policies used by us that affect the Consolidated Results of Operations, see *"Critical Accounting Policies"* *below.*

Revenues

Revenues

	Year Ended December 31,		
(In millions)	**2019**	2018	2017
Net premiums written	**$ 1,001.3**	$ 992.3	$ 998.0
Net premiums earned	**$ 1,031.0**	$ 975.2	$ 934.7
Investment income, net of expenses	**167.0**	141.3	120.9
Net realized investment (losses) gains	**5.3**	(1.4)	0.2
Other revenue	**10.6**	8.7	10.2
Total revenues	**$ 1,213.9**	$ 1,123.8	$ 1,066.0

NET PREMIUMS WRITTEN AND EARNED

2019 compared to 2018. NPW and NPE increased 1% and 6%, respectively, compared to the prior year, primarily due to an increase in premiums from a higher average insurance in force and an increase in premiums from single premium policy cancellations, partially offset by lower premium rates on our IIF and higher ceded premiums when compared to the same period of the prior year. The increase in ceded premiums was primarily due to premiums ceded under our Home Re Transactions.

2018 compared to 2017. While NPW was relatively flat compared to the prior year, NPE increased 4% compared to the prior year primarily due to lower ceded premiums, net, as the increase in profit commission more than offset the increase in gross ceded premiums. The profit commission increased due to a decrease in ceded losses. The increase in NPE also reflects an increase in our IIF compared to the prior year, however this impact was offset in part by a lower premium yield.

Premium yield

Premium yield is NPE divided by average IIF during the year and is influenced by a number of key drivers, which have a varying impact from period to period. The following table provides information related to our premium yield for 2019, 2018, and 2017.

Premium Yield

		Year Ended December 31,		
(in basis points)		**2019**	2018	2017
In force portfolio yield	(1)	51.4	53.1	56.0
Premium refunds		**(0.5)**	(0.7)	(1.3)
Accelerated earnings on single premium policies		**2.6**	1.2	1.5
Total direct premium yield		**53.5**	53.6	56.2
Ceded premiums earned, net of profit commission and assumed premiums	(2)	**(5.8)**	(5.4)	(6.6)
Net premium yield		**47.7**	48.2	49.6

(1) Total direct premiums earned, excluding premium refunds and accelerated premiums from single premium policy cancellations divided by average primary insurance in force.

(2) Ceded premiums earned, net of profit commissions and assumed premiums. Assumed premiums include those from our participation in GSE CRT programs, of which the impact on the net premium yield was 0.2 bps in 2019, 0.1 bps in 2018, and 0 bps in 2017.

Changes in our premium yields when compared to the respective prior year periods reflect the following:

In force Portfolio Yield

- A larger percentage of our IIF from book years with lower premium rates due to a decline in premium rates in recent years resulting from pricing competition, insuring mortgages with lower risk characteristics, certain policies undergoing premium rate resets on their ten-year anniversaries, and the availability of reinsurance.

Premium Refunds

- Premium refunds adversely impact our premium yield and are primarily driven by claim activity and our estimate of refundable premiums on our delinquent inventory.

Accelerated earnings on single premium policies

- Greater amounts of accelerated earned premium from cancellation of single premium policies prior to their estimated policy life, primarily due to increased refinancing activity.

Ceded premiums earned, net of profit commission and assumed premiums

- More of an adverse impact as the 2019 periods included ceded premiums under our excess of loss reinsurance transactions (Home Re Transactions), which were not in effect for all of 2018.

As discussed in our Risk Factor titled "Competition or changes in our relationships with our customers could reduce our revenues, reduce our premium yields and/or increase our losses," the private mortgage insurance industry is highly competitive and premium rates have declined over the past several years. We expect that will continue and that our inforce portfolio yield will continue to decline as older insurance policies with higher premium rates run off or have their premium rates reset, and new insurance policies with lower premium rates are written. While our increased use of reinsurance over the past several years has helped to mitigate the negative effect of declining premium rates on our returns, refer to our risk factor titled "Reinsurance may not always be available or affordable" for a discussion of the risks associated with the availability of reinsurance.

See "Overview – Factors Affecting Our Results" above for additional factors that also influence the amount of net premiums written and earned in a year.

REINSURANCE AGREEMENTS

Quota share reinsurance

Our quota share reinsurance affects various lines of our statements of operations and therefore we believe it should be analyzed by reviewing its effect on our pre-tax net income, as described below.

- We cede a fixed percentage of premiums earned and received on insurance covered by the transactions.
- We receive the benefit of a profit commission through a reduction in the premiums we cede. The profit commission varies directly and inversely with the level of losses on a "dollar for dollar" basis and can be eliminated at loss levels significantly higher than we are currently experiencing. As a result, lower levels of losses result in a higher profit commission and less benefit from ceded losses; higher levels of losses result in more benefit from ceded losses and a lower profit commission (or for levels of losses we do not expect, its elimination).
- We receive the benefit of a ceding commission through a reduction in underwriting expenses equal to 20% of premiums ceded (before the effect of the profit commission).
- We cede a fixed percentage of losses incurred on insurance covered by the transactions.

The following table provides information related to our quota share agreements for 2019, 2018, and 2017.

Quota share reinsurance

	As of and For the Years Ended December 31,		
(Dollars in thousands)	**2019**	2018	2017
Statements of operations:			
Ceded premiums written and earned, net of profit commission	**$ 111,550**	$ 108,337	$ 120,974
% of direct premiums written	**11%**	10%	11%
% of direct premiums earned	**11%**	10%	11%
Profit commission	**$ 139,179**	$ 147,667	$ 125,629
Ceding commissions	**$ 48,793**	$ 51,201	$ 49,321
Ceded losses incurred	**$ 11,395**	$ 6,543	$ 22,336
Mortgage insurance portfolio:			
Ceded RIF (in millions)	**$ 11,360**	$ 12,839	$ 11,849

Covered Risk

The amount of our NIW subject to our QSR Transactions as shown in the following table will vary from period to period in part due to coverage limits that may be triggered depending on the mix of our risk written during the period.

Quota share reinsurance

	As of and For the Years Ended December 31,		
	2019	2018	2017
NIW subject to QSR Transactions	**81.5%**	75.1%	84.0%
IIF subject to QSR Transactions	**78.5%**	77.5%	78.0%

We terminated a portion of our 2015 QSR Transaction effective June 30, 2019, paid a termination fee of $6.8 million, and entered into an amended quota share reinsurance agreement that effectively reduces the quota share cede rate from 30% to 15% on the remaining eligible insurance. The lower cede rate reduced our ceded RIF but does not impact our determination of the amount of IIF subject to quota share reinsurance agreements.

The percentage of 2019 NIW covered by QSR Transactions increased when compared to 2018. The percentage of 2018 NIW covered by QSR Transactions decreased when compared to 2017, primarily due to the following factors:

2019 compared to 2018:

- The 2019 QSR Transaction increased thresholds for risk written on loans with LTV ratios of 95% or greater and loans with DTI ratios greater than 45%, each when compared to our 2018 QSR Transaction. In 2018, risk written on loans with LTV ratios greater than 95% and DTI greater than 45% exceeded the thresholds on the 2018 QSR Transaction.

2018 compared to 2017:

- The 2018 transaction excluded loans with LTV ratios of 85% and below.
- Despite the 2018 transaction's increased coverage limit for risk written on loans with (1) LTV ratios of 95% and greater, and (2) DTI ratios greater than 45%, the risk written in 2018 exceeded these coverage limits.

2020 and 2021 QSR Transaction. We have agreed to terms with a group of unaffiliated reinsurers for reinsurance transactions with similar structures to our existing QSR transactions that will cover most of our NIW in 2020 (with a 30% quota share) and 2021 (with a 17.5% quota share).

Excess of loss reinsurance

Our excess-of-loss reinsurance agreements provide $532.0 million of loss coverage on an existing portfolio of inforce policies having an inforce date on or after July 1, 2016 and before March 31, 2019. As of December 31, 2019, the aggregate exposed principal balances under the Home Re 2018-1 and 2019-1 transactions were approximately $5.9 billion and $6.0 billion, respectively, which take into account the mortgage insurance coverage percentage, net retained risk after quota share reinsurance, and the reinsurance inclusion percentage of the unpaid principal balance. Total ceded premiums for 2019 and 2018 were $17.6 million and $2.8 million, respectively.

We expect that we may enter into similar excess-of-loss reinsurance transactions if capital market conditions remain favorable.

The excess-of-loss reinsurance agreements determine premium, in part, by the difference between the interest payable on the reinsurers' notes which reference LIBOR and earnings from a pool of securities receiving interest that may reference LIBOR. As discussed in our risk factor titled "The Company may be adversely impacted by the transition from LIBOR as a reference rate," it is uncertain whether LIBOR will continue to be quoted after 2021.

INVESTMENT INCOME, NET

2019 compared to 2018. Net investment income increased 18% to $167 million in 2019 compared to $141 million in 2018. The increase in investment income was due to a higher average investment portfolio balance.

2018 compared to 2017. Net investment income increased 17% to $141 million in 2018 compared to $121 million in 2017. The increase in investment income was due to higher average investment yields, as well as a higher average investment portfolio balance.

See "Balance Sheet Review" in this MD&A for further discussion regarding our investment portfolio.

NET REALIZED INVESTMENT GAINS (LOSSES)

Net realized investment gains (losses) in 2019, 2018, and 2017 were $5 million, $(1) million and $231 thousand, respectively.

OTHER REVENUE

2019 compared to 2018. Other revenue increased to $11 million in 2019 from $9 million in 2018, primarily due to higher contract underwriting revenues.

2018 compared to 2017. Other revenue decreased to $9 million in 2018 from $10 million in 2017, due to lower contract underwriting revenues.

Losses and expenses

Losses and expenses

	Year Ended December 31,		
(In millions)	**2019**	2018	2017
Losses incurred, net	**$ 118.6**	$ 36.6	$ 53.7
Amortization of deferred policy acquisition costs	**12.0**	11.9	11.1
Other underwriting and operating expenses, net	**182.8**	178.2	159.6
Interest expense	**52.7**	53.0	57.0
Loss on debt extinguishment	**—**	—	0.1
Total losses and expenses	**$ 366.0**	$ 279.7	$ 281.6

LOSSES INCURRED, NET

As discussed in “Critical Accounting Policies” below and consistent with industry practices, we establish case loss reserves for future claims only for loans that are currently delinquent. The terms “delinquent” and “default” are used interchangeably by us. We consider a loan to be delinquent when it is two or more payments past due. Case loss reserves are established based on estimating the number of loans in our delinquent inventory that will result in a claim payment, which is referred to as the claim rate, and further estimating the amount of the claim payment, which is referred to as claim severity.

Estimation of losses is inherently judgmental. The conditions that affect the claim rate and claim severity include the current and future state of the domestic economy, including unemployment and the current and future strength of local housing markets. The actual amount of the claim payments may be substantially different than our loss reserve estimates. Our estimates could be adversely affected by several factors, including a deterioration of regional or national economic conditions, including unemployment, leading to a reduction in borrower income and thus their ability to make mortgage payments, and a drop in housing values that could result in, among other things, greater losses on loans, and may affect borrower willingness to continue to make mortgage payments when the value of the home is below the mortgage balance. Historically, losses incurred have followed a seasonal trend in which the second half of the year has weaker credit performance than the first half, with higher new notice activity and a lower cure rate. Our estimates are also affected by any agreements we enter into regarding our claims paying practices, such as the settlement agreements discussed in Note 17 – “Litigation and Contingencies” to our consolidated financial statements. Changes to our estimates could result in a material impact to our consolidated results of operations and financial position, even in a stable economic environment.

2019 compared to 2018. Losses incurred, net increased 224% to $119 million compared to $37 million in 2018. The increase was due to a lower amount of favorable loss reserve development on previously received delinquency notices of $71 million in 2019 compared with $167 million in 2018. Current year losses incurred decreased in 2019 from 2018, primarily due to a lower claim rate on new delinquency notices when compared to the prior year.

2018 compared to 2017. Losses incurred, net decreased 32% to $37 million compared to $54 million in 2017. The decrease was due to a decrease in losses and LAE incurred in respect to delinquencies reported in 2018, offset in part by a decrease in favorable loss reserve development on prior year delinquencies. New delinquency notices declined 20% when compared to 2017, in part due to elevated 2017 delinquency notice activity associated with 2017 hurricanes, and the estimated claim rate on new delinquency notices also declined. Favorable development on prior year delinquencies occurred in 2018 due to a lower estimated claim rate on previously reported delinquencies, partially offset by increases in our expected severity assumption on previously reported delinquencies. During 2018, cure activity on loans that were delinquent twelve months or more was significantly higher than our previous estimates.

See "New notice claim rate" and "Claims severity" below for additional factors and trends that impact these loss reserve assumptions.

Composition of losses incurred

	Year Ended December 31,		
(In millions)	**2019**	2018	2017
Current year / New notices	**$ 190**	$ 204	$ 285
Prior year reserve development	**(71)**	(167)	(231)
Losses incurred, net	**$ 119**	$ 37	$ 54

Loss ratio

The loss ratio is the ratio, expressed as a percentage, of the sum of incurred losses and LAE, net to net premiums earned. The increase in the loss ratio in 2019 when compared to 2018, reflects a higher level of losses incurred, partially offset by an increase in earned premiums. The decrease in the loss ratio in 2018 compared to 2017, reflects the lower level of losses incurred, net and an increase in earned premiums.

	Year Ended December 31,		
	2019	2018	2017
Loss ratio	**11.5%**	3.7%	5.7%

New notice claim rate

New notice activity continues to be primarily driven by loans insured in 2008 and prior, which continue to experience a cycle whereby many loans default, cure, and re-default. This cycle, along with the duration that defaults may ultimately remain in our notice inventory, results in significant judgment in establishing the estimated claim rate.

New notice claim rate

	2019		2018		2017	
New notices - 2008 and prior	**34,252**	**63%**	38,897	71%	52,313	77%
New notices - 2009 and later	**19,987**	**37%**	15,551	29%	15,955	23%
Total	**54,239**	**100%**	54,448	100%	68,268	100%
Claim rate (1)	**8.0%**		9.0%		10.0%	
Previously delinquent %	**94.0%**		93.0%		90.0%	

(1) Claim rate is the respective full year weighted average rate and is rounded to the nearest whole percent.

New notices declined in 2019 compared to 2018 and 2018 compared to 2017 due to favorable economic conditions and an improving risk profile of our RIF. However, 2017 new notice activity also included the impact of hurricane activity.

Our estimated claim rate on new notices declined in 2019 compared to 2018 and 2018 compared to 2017, in each case reflecting the economic environment and our expectation of cure activity on the new notices received. We also estimated a materially lower new notice claim rate for those notices received in the fourth quarter of 2017 that we estimated to have been caused by hurricane activity that occurred in the third quarter of 2017. When excluding our estimate of new notices caused by hurricanes, our 2017 new notice claim rate approximated 10.5%, marginally higher than the actual full-year rate.

Claims severity

Factors that impact claim severity include:

- exposure on the loan, which is the unpaid principal balance of the loan times our insurance coverage percentage,
- length of time between delinquency and claim filing (which impacts the amount of interest and expenses, with a longer period between default and claim filing generally increasing severity), and
- curtailments.

As discussed in Note 8 - "Loss Reserves," the average time for servicers to process foreclosures has recently shortened. Therefore, we expect the average number of missed payments at the time a claim is received to be approximately 18 to 24 for new notices we have received, and expect to receive in 2020, compared to an average of 35 missed payments for claims received in 2019. Our loss reserves estimates take into consideration trends over time, because the development of the delinquencies may vary from period to period without establishing a meaningful trend.

The majority of loans from 2005 through 2008 (which represent 54% of the loans in the delinquent inventory) are covered by master policy terms that, except under certain circumstances, do not limit the number of years that an insured can include interest when filing a claim. Under our current master policy terms, an insured can include accumulated interest when filing a claim only for the first three years the loan is delinquent. In each case, the insured must comply with its obligations under the terms of the applicable master policy.

The quarterly trend in claims severity for each of the three years in the period ended December 31, 2019 is shown in the following table.

Claims severity trend

Period	Average exposure on claim paid	Average claim paid	% Paid to exposure	Average number of missed payments at claim received date
Q4 2019	$ 46,076	$ 46,302	100.5%	34
Q3 2019	42,821	44,388	103.7%	35
Q2 2019	46,950	46,883	99.9%	34
Q1 2019	42,277	43,930	103.9%	35
Q4 2018	45,366	47,980	105.8%	35
Q3 2018	43,290	47,230	109.1%	35
Q2 2018	44,522	50,175	112.7%	38
Q1 2018	45,597	51,069	112.0%	38
Q4 2017	44,437	49,177	110.7%	36
Q3 2017	43,313	46,389	107.1%	35
Q2 2017	44,747	49,105	109.7%	35
Q1 2017	44,238	49,110	111.0%	35

Note: Table excludes material settlements. Settlements include amounts paid in settlement of disputes for claims paying practices and/or commutations of policies.

In considering the potential sensitivity of the factors underlying our estimate of loss reserves, it is possible that even a relatively small change in our estimated claim rate or severity could have a material impact on loss reserves and, correspondingly, on our consolidated results of operations even in a stable economic environment. For example, as of December 31, 2019, assuming all other factors remain constant, a $1,000 increase/decrease in the average severity reserve factor would change the loss reserve amount by approximately +/- $10 million. A one percentage point increase/decrease in the average claim rate reserve factor would change the loss reserve amount by approximately +/- $17 million.

See Note 8 – "Loss Reserves" to our consolidated financial statements and "Critical Accounting Policies" below for a discussion of our losses incurred and claims paying practices (including curtailments).

The length of time a loan is in the delinquent inventory can differ from the number of payments that the borrower has not made or is considered delinquent. These differences typically result from a borrower making monthly payments that do not result in the loan becoming fully current. The number of payments that a borrower is delinquent is shown in the following table.

Primary delinquent inventory - number of payments delinquent

	December 31,		
	2019	2018	2017
3 payments or less	**14,895**	15,519	21,678
4 - 11 payments	**8,519**	8,842	12,446
12 payments or more [(1)]	**6,614**	8,537	12,432
Total	**30,028**	32,898	46,556
3 payments or less	**50%**	47%	46%
4 - 11 payments	**28%**	27%	27%
12 payments or more	**22%**	26%	27%
Total	**100%**	100%	100%

(1) Approximately 33%, 38%, and 43% of the primary delinquent inventory with 12 payments or more delinquent has at least 36 payments delinquent as of December 31, 2019, 2018 and 2017, respectively.

NET LOSSES AND LAE PAID

This section provides information on our claim payment trends and exposure on our outstanding RIF for each of the three years in the period ended December 31, 2019. The following table below presents our net losses and LAE paid for each of those years.

Net losses and LAE paid

(in millions)	**2019**	2018	2017
Total primary (excluding settlements)	**$ 193**	$ 282	$ 446
Claims paying practices and NPL settlements [(1)]	**30**	50	54
Pool	**4**	6	10
Other	**—**	—	—
Direct losses paid	**227**	338	510
Reinsurance	**(8)**	(19)	(23)
Net losses paid	**219**	319	487
LAE	**21**	16	18
Net losses and LAE paid before terminations	**240**	335	505
Reinsurance terminations	**(14)**	(2)	—
Net losses and LAE paid	**$ 226**	$ 333	$ 505

(1) See Note 8 - "Loss Reserves" for additional information on our settlements of disputes for claims paying practices and/or commutations of policies

Net losses and LAE paid decreased 32% in 2019 compared to 2018 and decreased 34% in 2018 compared to 2017, primarily due to lower claim activity on our primary business. During each of 2019, 2018, and 2017, losses paid included settlement payments under commutations of coverage on policies and/or related to disputes concerning our claims paying practices. We believe losses and LAE paid will be lower in 2020 compared to 2019.

Primary losses paid for the top 15 jurisdictions (based on 2019 losses paid, excluding settlement amounts) and all other jurisdictions for each of the three years in the period ended December 31, 2019 appears in the table below.

Primary paid losses by jurisdiction

(In millions)	**2019**	2018	2017
Florida *	**$ 28**	$ 29	$ 49
New York *	**25**	32	37
New Jersey *	**20**	42	61
Illinois *	**13**	19	28
Puerto Rico *	**12**	9	18
Maryland	**9**	18	23
Pennsylvania *	**8**	12	22
Ohio *	**7**	8	16
Connecticut *	**6**	7	11
California	**5**	11	17
Texas	**4**	5	8
Michigan	**4**	4	7
Virginia	**4**	6	10
Georgia	**3**	5	10
Wisconsin	**3**	4	7
All other jurisdictions	**42**	71	122
Total primary (excluding settlements)	**$ 193**	$ 282	$ 446

Note: Asterisk denotes jurisdictions in the table above that predominately use a judicial foreclosure process, which generally increases the amount of time it takes for a foreclosure to be completed.

The primary average claim paid for the top 5 jurisdictions (based on 2019 losses paid, excluding settlement amounts) for each of the three years in the period ended December 31, 2019 appears in table below.

Primary average claim paid

	2019	2018	2017
Florida *	**$ 65,576**	$ 59,320	$ 62,751
New York *	**102,819**	98,026	81,043
New Jersey *	**81,811**	89,504	87,333
Illinois *	**42,833**	44,379	46,089
Puerto Rico *	**44,393**	45,910	43,630
All other jurisdictions	**34,375**	39,597	40,551
All jurisdictions	**45,324**	49,218	48,476

Note: Asterisk denotes jurisdictions in the table above that predominately use a judicial foreclosure process, which generally increases the amount of time it takes for a foreclosure to be completed.

The primary average claim paid can vary materially from period to period based upon a variety of factors, including the local market conditions, average loan amount, average coverage percentage, the amount of time between delinquency and claim filing, and our loss mitigation efforts on loans for which claims are paid.

The primary average RIF on delinquent loans as of December 31, 2019, 2018 and 2017 and for the top 5 jurisdictions (based on 2019 losses paid, excluding settlement amounts) appears in the following table.

Primary average exposure - delinquent loans

	2019	2018	2017
Florida	**$ 52,566**	$ 53,371	$ 54,847
New York	**72,188**	71,795	71,170
New Jersey	**64,444**	65,521	65,659
Illinois	**38,740**	39,753	40,767
Puerto Rico	**33,920**	35,420	36,644
All other jurisdictions	**42,347**	41,331	41,134
All jurisdictions	**45,028**	44,584	45,131

The primary average RIF on all loans was $52,995, $51,085, and $49,142 at December 31, 2019, December 31, 2018, and December 31, 2017, respectively.

LOSS RESERVES

Our primary default rate at December 31, 2019 was 2.78% (2018: 3.11%, 2017: 4.55%). Our primary delinquent inventory was 30,028 loans at December 31, 2019, representing a decrease of 9% from 2018 and 36% from 2017. The reduction in our primary delinquent inventory is the result of the total number of delinquent loans: (1) that have cured; (2) for which claim payments have been made; or (3) that have resulted in rescission, claim denial, or removal from inventory due to settlements of claims paying disputes or commutations of policies, collectively, exceeding the total number of new delinquencies notices received on insured loans. In recent periods, we have experienced improved cure rates and the number of delinquencies in the inventory with twelve or more missed payments has been declining. Generally, the fewer missed payments associated with a delinquent loan, the lower the likelihood it will result in a claim. Our commutations of coverage on pools of NPLs have each been completed with amounts paid approximating the loss reserves previously established on the delinquent loans. We expect our delinquent inventory to decline in 2020 from 2019 levels.

The primary and pool loss reserves as of December 31, 2019, 2018 and 2017 appear in the table below.

Gross loss reserves

	December 31,					
	2019		2018		2017	
Primary:						
Case reserves *(In millions)*	**$ 490**		$ 610		$ 913	
IBNR and LAE	**56**		50		58	
Total primary direct loss reserves	**546**		660		971	
Ending delinquent inventory		**30,028**		32,898		46,556
Percentage of loans delinquent (default rate)		**2.78%**		3.11%		4.55%
Average direct reserve per default		**$ 18,171**		$ 20,077		$ 20,851
Primary claims received inventory included in ending delinquent inventory		**538**		809		954
Pool (1)**:**						
Direct loss reserves *(In millions)*:						
With aggregate loss limits	**7**		10		10	
Without aggregate loss limits	**2**		3		4	
Total pool direct loss reserves	**9**		13		14	
Ending delinquent inventory:						
With aggregate loss limits		**430**		595		952
Without aggregate loss limits		**223**		264		357
Total pool ending delinquent inventory		**653**		859		1,309
Pool claims received inventory included in ending delinquent inventory		**11**		24		42
Other gross loss reserves *(In millions)*	**—**		1		1	

(1) Since a number of our pool policies include aggregate loss limits and/or deductibles, we do not disclose an average direct reserve per default for our pool business.

The average direct reserve per default as of December 31, 2017 included the impact of delinquencies we estimated to be caused by hurricane activity that remained in our ending delinquent inventory at December 31, 2017, which had a materially lower new delinquency notice claim rate than other new delinquency notices received. When excluding the estimated hurricane delinquencies, the average direct reserve per default was $24,000. The average direct reserve per default as of December 31, 2019 declined when compared to the average as of December 31, 2018 and December 31, 2017 because the estimated claim rates on loans that remain in our delinquent inventory were lower as of December 31, 2019.

The primary default inventory for the top 15 jurisdictions (based on 2019 losses paid, excluding settlement amounts) at December 31, 2019, 2018 and 2017 appears in table the below.

Primary delinquent inventory by jurisdiction

	2019	2018	2017
Florida *	**2,504**	2,853	6,501
New York *	**1,634**	1,855	2,387
New Jersey *	**992**	1,151	1,749
Illinois *	**1,749**	1,781	2,136
Puerto Rico *	**1,122**	1,503	3,761
Maryland	**796**	842	1,026
Pennsylvania *	**1,755**	1,929	2,403
Ohio *	**1,498**	1,627	2,025
Connecticut *	**506**	480	574
California	**1,213**	1,260	1,402
Texas	**2,251**	2,369	3,975
Michigan	**921**	1,041	1,260
Virginia	**580**	588	731
Georgia	**1,128**	1,220	1,550
Wisconsin	**694**	726	913
All other jurisdictions	**10,685**	11,673	14,163
Total	**30,028**	32,898	46,556

Note: Asterisk denotes jurisdictions in the table above that predominately use a judicial foreclosure process, which generally increases the amount of time it takes for a foreclosure to be completed.

Florida, Puerto Rico, and Texas each experienced an increase in their delinquent inventory as of December 31, 2017. The increases were driven by hurricanes in the third quarter of 2017, which resulted in significant new delinquency notice activity in the fourth quarter of 2017. Primarily due to 2018 cure activity on hurricane-related notices, each of those jurisdictions had significant reductions in their delinquent inventory in 2018.

The primary default inventory by policy year at December 31, 2019, 2018 and 2017 appears in the table below.

Primary delinquent inventory by policy year

	2019	2018	2017
2004 and prior	**4,686**	6,061	8,739
2004 and prior %:	***16%***	*18%*	*19%*
2005	**2,799**	3,340	4,916
2006	**4,582**	5,299	7,719
2007	**7,096**	8,702	12,807
2008	**1,798**	2,369	3,455
2005 - 2008 %	***54%***	*60%*	*62%*
2009	**148**	172	315
2010	**115**	121	199
2011	**143**	159	266
2012	**231**	312	549
2013	**521**	592	957
2014	**1,101**	1,264	1,757
2015	**1,388**	1,418	1,992
2016	**1,578**	1,459	1,930
2017	**1,989**	1,282	955
2018	**1,521**	348	—
2019	**332**	—	—
2009 and later %:	***30%***	*22%*	*19%*
Total	**30,028**	32,898	46,556

The delinquent inventory as of December 31, 2017 for most policy years included new delinquency notices from hurricane impacted areas that had not cured. As a result, delinquencies, including in the most recent policy years, were greater than they otherwise would have been as of December 31, 2017. The majority of the notices received in the hurricane impacted areas cured during 2018.

The losses we have incurred on our 2005 through 2008 books have exceeded our premiums from those books. Although uncertainty remains with respect to the ultimate losses we may experience on those books, as we continue to write new insurance, those books have become a smaller percentage of our total mortgage insurance portfolio. Our 2005 through 2008 books of business represented approximately 11% and 15% of our total primary RIF at December 31, 2019 and 2018, respectively. Approximately 39% of the remaining primary RIF on our 2005 through 2008 books of business benefited from HARP as of both December 31, 2019 and 2018.

On our primary business, the highest claim frequency years have typically been the third and fourth year after loan origination. However, the pattern of claim frequency can be affected by many factors, including persistency and deteriorating economic conditions. Deteriorating economic conditions can result in increasing claims following a period of declining claims. As of December 31, 2019, 58% of our primary RIF was written subsequent to December 31, 2016, 70% of our primary RIF was written subsequent to December 31, 2015, and 79% of our primary RIF was written subsequent to December 31, 2014.

UNDERWRITING AND OTHER EXPENSES, NET

Underwriting and other expenses includes items such as employee compensation costs, fees for professional services, depreciation and maintenance expense, and premium taxes, and are reported net of ceding commissions.

2019 compared to 2018. Underwriting and other expenses for 2019 increased when compared to 2018 primarily due to an increase in benefit expenses and a reduction in ceding commissions.

2018 compared to 2017. Underwriting and other expenses for 2018 increased when compared to 2017, primarily due to higher compensation.

Underwriting expense ratio

The underwriting expense ratio is the ratio, expressed as a percentage, of the underwriting and operating expenses, net and amortization of DAC of our combined insurance operations (which excludes underwriting and operating expenses of our non-insurance operations) to NPW, and is presented in the table below for the past three years.

	Year Ended December 31,		
	2019	2018	2017
Underwriting expense ratio	**18.4%**	18.2%	16.0%

The underwriting expense ratio increased in 2019 compared with 2018 due to an increase in underwriting expenses partially offset by slightly higher NPW. The increase in the underwriting expense ratio in 2018 when compared to 2017 was due to an increase in expenses and a decrease in our NPW.

INTEREST EXPENSE

2019 compared to 2018. Interest expense for 2019 was $53 million, unchanged from 2018.

2018 compared to 2017. Interest expense for 2018 decreased 7% to $53 million compared to $57 million in 2017 as our previously outstanding 5% Notes matured and our 2% Notes were extinguished, each during 2017.

INCOME TAX EXPENSE AND EFFECTIVE TAX RATE

Income tax provision and effective tax rate

(In millions, except rate)	**2019**	2018	2017
Income before tax	**$ 848**	$ 844	$ 784
Provision for income taxes	**174**	174	429
Effective tax rate	**20.5%**	20.6%	54.7%

2019 compared to 2018. The income tax expense for 2019 was flat compared to the income tax expense for 2018. Our effective tax rate for 2019 and 2018 was below the federal statutory income tax rate of 21% primarily due to the benefits of tax-preferenced securities.

2018 compared to 2017. The decrease in income tax expense for 2018 compared to 2017 reflects the lower 2018 federal statutory income tax rate under the Tax Act, the remeasurement of our deferred tax assets in 2017, as well as an additional tax provision recorded in 2017 for the settlement of our IRS litigation, partially offset by a 2018 increase in income before tax. Our 2018 effective tax rate was below the federal statutory income tax rate of 21% primarily due to the benefits of tax-preferenced securities.

See Note 12 – "Income Taxes" to our consolidated financial statements for a discussion of our tax position.

BALANCE SHEET REVIEW

Shareholders' equity

Shareholders' equity

(In millions)	As of December 31, 2019	2018	$ Change
Shareholders' equity			
Common stock	**$ 371**	$ 371	$ —
Paid-in capital	**1,870**	1,863	7
Treasury stock	**(283)**	(175)	(108)
Accumulated Other Comprehensive Income (Loss), net of tax	**73**	(124)	197
Retained earnings	**2,278**	1,647	631
Total	**$ 4,309**	$ 3,582	$ 727

The increase in shareholders' equity was due to net income during 2019 and an increase in the fair value of our investment portfolio, offset in part by the repurchase of shares of our common stock and dividends paid to shareholders.

Total assets and total liabilities

As of December 31, 2019, total assets were $6.2 billion and total liabilities were $1.9 billion. Compared to year-end 2018, total assets increased by $551.8 million and total liabilities decreased by $175.6 million.

The following sections focus on the assets and liabilities experiencing major developments in 2019.

INVESTMENT PORTFOLIO

The investment portfolio increased 12%, to $5.8 billion as of December 31, 2019 (2018: $5.2 billion), as net cash from operations was used in part for additional investment.

The return we generate on our investment portfolio is an important component of our consolidated financial results. Our investment portfolio primarily consists of a diverse mix of highly rated fixed income securities. The investment portfolio is designed to achieve the following objectives:

Operating Companies [(1)]	Holding Company
➔ Preserve PMIERs assets	➔ Provide liquidity with minimized realized loss
➔ Maximize total return with emphasis on yield, subject to our other objectives	➔ Maintain highly liquid, low volatility assets
➔ Limit portfolio volatility	➔ Maintain high credit quality
➔ Duration 3.5 to 5.5 years	➔ Duration maximum of 2.5 years

(1) Primarily MGIC

To achieve our portfolio objectives, our asset allocation considers the risk and return parameters of the various asset classes in which we invest. This asset allocation is informed by, and based on the following factors:

- economic and market outlooks;
- diversification effects;
- security duration;
- liquidity;
- capital considerations; and
- income tax rates.

The average duration and embedded investment yield of our investment portfolio as of December 31, 2019, 2018, and 2017 is shown in the following table.

Portfolio duration and embedded investment yield

	December 31, 2019	2018	2017
Duration (in years)	**3.9**	4.1	4.3
Pre-tax yield [(1)]	**3.1%**	3.1%	2.7%
After-tax yield [(1)]	**2.5%**	2.6%	2.0%

(1) Embedded investment yield is calculated on a yield-to-worst basis.

The credit risk of a security is evaluated through analysis of the security's underlying fundamentals, including the issuer's sector, scale, profitability, debt coverage, and ratings. The investment policy guidelines limit the amount of our credit exposure to any one issue, issuer and type of instrument. The following table shows the security ratings of our fixed income investments as of December 31, 2019 and 2018.

Fixed income security ratings

% of fixed income securities at fair value

Period	Security Ratings [(1)] AAA	AA	A	BBB
December 31, 2019	**21%**	**20%**	**34%**	**24%**
December 31, 2018	19%	23%	33%	25%

(1) Ratings are provided by one or more of: Moody's, Standard & Poor's and Fitch Ratings. If three ratings are available, the middle rating is shown; otherwise the lowest rating is shown.

Our investment portfolio mix was comparable for the years ended December 31, 2019 and December 31, 2018. See Note 5 – "Investments" to our consolidated financial statements for additional disclosure on our investment portfolio.

Investments outlook

The U.S. economy continued to grow in 2019 and is expected to continue to grow at a slower rate in 2020. Against this positive macroeconomic backdrop, which includes very low unemployment, the Federal Open Market Committee left its benchmark interest rate at a range of 150 to 175 basis points as of December 31, 2019 and has signaled that it does not expect increases in 2020. Our investment portfolio of fixed income securities is subject to interest rate risk and its fair value is likely to decline in a rising interest rate environment. We seek to manage our exposure to interest rate risk and volatility by maintaining a diverse mix of high quality securities with an intermediate duration profile. While higher interest rates may adversely impact the fair values of our fixed income securities, they present an opportunity to reinvest investment income and proceeds from security maturities into higher yielding securities. In light of the corporate income tax rate reduction in the fourth quarter of 2017, we reduced the percentage of our investments in tax-exempt securities during 2018 and increased our corporate and CLO concentrations. We will continue to evaluate the relative value of tax-exempt versus taxable fixed income securities during 2020, and our investment allocations may shift over time.

As of December 31, 2019, approximately 6% of the fair value of our investment portfolio consisted of securities referencing LIBOR. As discussed in our risk factor titled "The Company may be adversely impacted by the transition from LIBOR as a reference rate", it is uncertain whether LIBOR will continue to be quoted after 2021.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents increased 7%, to $162 million as of December 31, 2019 (2018: $152 million), as net cash generated from operating activities was only partly offset by net cash used in investing and financing activities.

DEFERRED INCOME TAXES

Deferred income taxes, net decreased 92%, to $6 million as of December 31, 2019 (2018: $69 million), primarily due to the tax effect of unrealized gains generated by the investment portfolio.

LOSS RESERVES

Our loss reserves include estimates of losses and settlement expenses on (1) reported delinquencies known as case reserves (2) IBNR reserves, and (3) LAE reserves. Our gross reserves are reduced by reinsurance recoverable on our estimated losses and settlement expenses to calculate a net reserve balance. Loss reserves decreased by 18% to $555 million as of December 31, 2019, from $674 million of December 31, 2018. Reinsurance recoverables on our estimated losses and settlement expenses were $22 million and $33 million as of December 31, 2019 and December 31, 2018, respectively. This decrease was driven by favorable development on previously received delinquencies, offset in part by losses incurred on new delinquency notices received in 2019 that remain in inventory.

OTHER LIABILITIES

Other liabilities decreased 16% to $152 million as of December 31, 2019 (2018: $180 million), primarily due to decreases in our income taxes payable, accounts payable, pension-related liabilities and our premium refund accrual due to lower estimated claim rates, and the settlement of 2018 share repurchases in the first quarter of 2019, partially offset by an increase in accrued salaries and benefits.

Off-balance sheet arrangements

Home Re 2018-1 Ltd. and Home Re 2019-1 Ltd. are special purpose variable interest entities that are not consolidated in our consolidated financial statements because we do not have the unilateral power to direct those activities that are significant to their economic performance. See Note 9 - "Reinsurance," to our consolidated financial statements for additional information.

LIQUIDITY AND CAPITAL RESOURCES

CONSOLIDATED CASH FLOW ANALYSIS

We have three primary types of cash flows: (1) operating cash flows, which consist mainly of cash generated by our insurance operations and income earned on our investment portfolio, less amounts paid for claims, interest expense and operating expenses, (2) investing cash flows related to the purchase, sale and maturity of investments and purchases of property and equipment and (3) financing cash flows generally from activities that impact our capital structure, such as changes in debt and shares outstanding and dividend payouts. The following table summarizes these three cash flows on a consolidated basis for the last three years.

Summary of consolidated cash flows

	Years ended December 31,		
(In thousands)	**2019**	2018	2017
Total cash provided by (used in):			
Operating activities	**$ 609,532**	$ 544,517	$ 406,657
Investing activities	**(422,108)**	(317,780)	(303,641)
Financing activities	**(173,406)**	(171,550)	(158,575)
Increase (decrease) in cash and cash equivalents and restricted cash and cash equivalents	**$ 14,018**	$ 55,187	$ (55,559)

Operating activities

The following list highlights the major sources and uses of cash flow from operating activities:

Sources

+ Premiums received
+ Loss payments from reinsurers
+ Investment income

Uses

- Claim payments
- Premium ceded to reinsurers
- Interest expense
- Operating expenses

Our largest source of cash is from premiums received from our insurance policies, which we receive on a monthly installment basis for most policies. Premiums are received at the beginning of the coverage period for single premium and annual premium policies. Our largest cash outflow is for claims that arise when a delinquency results in an insured loss. We invest our claims paying resources from premiums and other sources in various investment securities that earn interest. We also use cash to pay for our ongoing expenses such as salaries, debt interest, and rent.

In connection with the reinsurance we use to manage the risk associated with our insurance policies, we cede, or pay out, part of the premiums we receive to our reinsurers and collect cash back when claims subject to our reinsurance coverage are paid.

Net cash provided by operating activities in 2019 increased compared to 2018 primarily due to a lower level of losses paid, net, an increase in net premium written, and an increase in investment income.

Net cash provided by operating activities in 2018 increased compared to 2017 primarily due to a lower level of losses paid, net and an increase in investment income, offset in part by payments made in connection with our IRS litigation settlement.

Investing activities

The following list highlights the major sources and uses of cash flow from investing activities:

Sources

+ Proceeds from sales of investments
+ Proceeds from maturity of fixed income securities

Uses

- Purchases of investments
- Purchases of property and equipment

We maintain an investment portfolio that is primarily invested in a diverse mix of fixed income securities. As of December 31, 2019, our portfolio had a fair value of $5.8 billion, an increase of $599.3 million, or 11.6% from December 31, 2018. Net cash flows used in investing activities in 2019, 2018, and 2017 primarily reflect purchasing fixed income securities in an amount that exceeded our proceeds from sales and maturities of fixed income securities during the year as cash from operations was available for additional investment. In addition to investment portfolio activities, our investing activities included investment in our technology infrastructure to enhance our ability to conduct business and execute our strategies, as well as an initiative to update our corporate headquarters building which was substantially complete in 2018.

Financing activities

The following list highlights the major sources and uses of cash flow from financing activities:

Sources	
+	Proceeds from debt and/or common stock issuances

Uses	
-	Repurchase of common stock
-	Payment of dividends to shareholders
-	Repayment/repurchase of debt
-	Payment of withholding taxes related to share-based compensation net share settlement

Net cash flows used in financing activities in 2019 reflect repurchases of our common stock, payment of dividends to shareholders and the payment of withholding taxes related to share-based compensation net share settlement. Net cash flows used in financing activities in 2018 also reflect repurchases of our common stock and the payment of withholding taxes related to share-based compensation net share settlement.

Net cash flows used in financing activities for 2017 included the repayment at maturity of our 5% Notes, redemption of a portion of our 2% Notes, expenses paid to establish our revolving credit facility and payment of withholding taxes related to share-based compensation net share settlement.

* * *

For a further discussion of matters affecting our cash flows, see "Balance Sheet Review" and "Debt at our Holding Company and Holding Company Liquidity" below.

CAPITALIZATION

Capital Risk

Capital risk is the risk of adverse impact on our ability to comply with capital requirements (regulatory and GSE) and to maintain the level, structure and composition of capital required for meeting financial performance objectives.

A strong capital position is essential to our business strategy and is important to maintain a competitive position in our industry. Our capital strategy focuses on long-term stability, which enables us to build and invest in our business, even in a stressed environment.

Our capital management objectives are to:

- influence and ensure compliance with capital requirements,
- maintain access to capital and reinsurance markets,
- manage our capital to support our business strategies and the competing priorities of relevant stakeholders
- assess appropriate uses for capital that cannot be deployed in support of our business strategies, including the size and form of capital return to shareholders and efficiently using company resources, and
- support business opportunities by enabling capital flexibility and efficiently using company resources.

These objectives are achieved through ongoing monitoring and management of our capital position, mortgage insurance portfolio stress modeling, and a capital governance framework. Capital management is intended to be flexible in order to react to a range of potential events. The focus we place on any individual objective may change over time due to factors that include, but are not limited to, economic conditions, changes at the GSEs, competition, and alternative transactions to transfer mortgage risk.

Capital Structure

The following table summarizes our capital structure as of December 31, 2019, 2018, and 2017.

(In thousands, except ratio)	**2019**	2018	2017
Common stock, paid-in capital, retained earnings, less treasury stock	**$ 4,236,526**	$ 3,706,105	$ 3,198,309
Accumulated other comprehensive loss, net of tax	**72,708**	(124,214)	(43,783)
Total shareholders' equity	**4,309,234**	3,581,891	3,154,526
Long-term debt, par value	**836,872**	836,872	836,872
Total capital resources	**$ 5,146,106**	$ 4,418,763	$ 3,991,398
Ratio of long-term debt to shareholders' equity	**19.4%**	23.4%	26.5%

The increase in total shareholders' equity in 2019 from 2018 was primarily due to net income during 2019, offset by our repurchases of our common stock and the increase in gross unrealized investment losses. See Note 13 - "Shareholders' Equity" for further information .

DEBT AT OUR HOLDING COMPANY AND HOLDING COMPANY LIQUIDITY

Debt obligations - holding company

The 5.75% Notes and 9% Debentures are obligations of our holding company, MGIC Investment Corporation, and not of its subsidiaries. We have no debt obligations due within the next twelve months. As of December 31, 2019, our 5.75% Note had $425 million of outstanding principal, due in August 2023, and our 9% Debentures had $389.5 million of outstanding principal, due in April 2063. MGIC's ownership of $132.7 million of our holding company's 9% Debentures is eliminated in consolidation, but they remain outstanding obligations owed by our holding company to MGIC. The 9% Debentures are a convertible debt issuance. Subject to certain limitations and restrictions, holders of the 9% Debentures may convert their notes into shares of our common stock at their option prior to certain dates prescribed under the terms of their issuance, in which case our corresponding obligation will be eliminated prior to the scheduled maturity.

See Note 7 - "Debt" for further information on our outstanding debt obligations and transactions impacting our consolidated financial statements in 2019 and 2018.

Liquidity analysis - holding company

As of December 31, 2019, and December 31, 2018, we had approximately $325 million and $248 million, respectively, in cash and investments at our holding company. These resources are maintained primarily to service our debt interest expense, pay debt maturities, repurchase shares, pay dividends to shareholders, and to settle intercompany obligations. While these assets are held, we generate investment income that serves to offset a portion of our interest expense. Investment income and the payment of dividends from our insurance subsidiaries are the principal sources of holding company cash inflow. MGIC is the principal source of dividends, and their payment is restricted by insurance regulation. See Note 14 - "Statutory Information" to our consolidated financial statement for additional information about MGIC's dividend restrictions. The payment of dividends from MGIC is also influenced by our view of the appropriate level of PMIERs Available Assets to maintain an excess over Minimum Required Assets. Other sources of holding company liquidity include raising capital in the public markets. The ability to raise capital in the public markets is subject to prevailing market conditions, investor demand for the securities to be issued, and our deemed creditworthiness.

Over the next twelve months the principal demand on holding company resources will be interest payments on our 5.75% Notes and 9% Debentures approximating $60 million. We have received the appropriate approvals for MGIC to pay our holding company, in the first quarter or 2020, a special dividend of $320 million and a quarterly dividend of $70 million. We expect MGIC to pay quarterly dividends totaling at least $280 million per year. We believe our holding company has sufficient sources of liquidity to meet its payment obligations for the foreseeable future.

During 2019 and 2018, we used approximately $114 million and $175 million (of which $12 million settled in January 2019), respectively, of available holding company cash to repurchase shares of our common stock. From January 1, 202, through February 19, 2020, we repurchased approximately 2.5 million shares of our common stock for approximately $35 million.
We may use additional holding company cash to repurchase additional shares or to repurchase our outstanding debt obligations. Such repurchases may be material, may be made for cash (funded by debt) and/or exchanges for other securities, and may be made in open market purchases (including through 10b5-1 plans), privately negotiated acquisitions or other transactions. See "Overview-Capital" of this

MD&A for a discussion of the approval to repurchase up to an additional $300 million of our common stock through the end of 2021.

In 2019 we used $42 million to pay cash dividends to shareholders. On January 28, 2020, our Board of Directors declared a quarterly cash dividend of $0.06 per common share to shareholders of record on February 11, 2020, payable on February 28, 2020.

Our holding company cash and investments increased by $77 million in 2019, to $325 million as of December 31, 2019. Cash inflows included $280 million of dividends received from MGIC and $25 million of other inflows, which included intercompany activity. Cash outflows included $126 million used to repurchase shares of our common stock, $60 million of interest payments, of which approximately $12 million was paid to MGIC for the portion of our 9% Debentures owned by MGIC, and $42 million in common stock dividends.

The net unrealized losses on our holding company investment portfolio were approximately $2.9 million at December 31, 2019 and the portfolio had a modified duration of approximately 1.4 years.

Scheduled debt maturities beyond the next twelve months include $425 million of our 5.75% Notes in 2023 and $389.5 million of our 9% Debentures in 2063, of which MGIC owns $132.7 million. The principal amount of the 9% Debentures is currently convertible, at the holder's option, at an initial conversion rate, which is subject to adjustment, of 74.4718 common shares per $1,000 principal amount of debentures. This represents an initial conversion price of approximately $13.43 per share. We may redeem the 9% Debentures in whole or in part from time to time, at our option, at a redemption price equal to 100% of the principal amount of the 9% Debentures being redeemed, plus any accrued and unpaid interest, if the closing sale price of our common stock exceeds $17.46 for at least 20 of the 30 trading days preceding notice of the redemption.

See Note 7 – "Debt" to our consolidated financial statements for additional information about the conversion terms of our 9% Debentures and the terms of our indebtedness, including our option to defer interest. The description in Note 7 - "Debt" to our consolidated financial statements is qualified in its entirety by the terms of the notes and debentures. The terms of our 9% Debentures are contained in the Indenture dated as of March 28, 2008, between us and U.S. Bank National Association filed as an exhibit to our Form 10-Q filed with the SEC on May 12, 2008. The terms of our 5.75% Notes are contained in a Supplemental Indenture, dated as of August 5, 2016, between us and U.S. Bank National Association, as trustee, which is included as an exhibit to our 8-K filed with the SEC on August 5, 2016, and in the Indenture dated as of October 15, 2000 between us and the trustee.

Although not anticipated in the near term, we may also contribute funds to our insurance operations to comply with the PMIERs or the State Capital Requirements. See "Overview – Capital" above for a discussion of these requirements. See the discussion of our non-insurance contract underwriting services in Note 17 – "Litigation and Contingencies" to our consolidated financial statements for other possible uses of holding company resources.

DEBT AT SUBSIDIARIES

MGIC is a member of the FHLB. Membership in the FHLB provides MGIC access to an additional source of liquidity via a secured lending facility. MGIC has outstanding a $155.0 million fixed rate advance from the FHLB. Interest on the advance is payable monthly at a fixed annual rate of 1.91%. The principal of the advance matures on February 10, 2023 but may be prepaid at any time. Such prepayment would be below par if interest rates have risen after the advance was originated, or above par if interest rates have declined. The advance is secured by eligible collateral in the form of pledged securities from the investment portfolio, whose market value must be maintained at a minimum of 102% of the principal balance of the advance.

Capital Adequacy

PMIERs

We operate under each of the GSE's PMIERs. Refer to "Overview - Capital - GSEs" of this MD&A for further discussion of PMIERs.

As of December 31, 2019, MGIC's Available Assets under PMIERs totaled approximately $4.6 billion, an excess of approximately $1.2 billion over its Minimum Required Assets; and MGIC is in compliance with the requirements of the PMIERs and eligible to insure loans delivered to or purchased by the GSEs.

Maintaining a sufficient level of excess Available Assets will allow MGIC to remain in compliance with the PMIERs financial requirements. Our reinsurance transactions provided an aggregate of approximately $1.2 billion of PMIERs capital credit as of December 31, 2019. Our 2020 QSR transaction terms are generally comparable to our existing QSR transactions and will also provide PMIERs capital credit. Refer to Note 9 - "Reinsurance" to our consolidated financial statements for additional information on our reinsurance transactions.

We plan to continuously comply with the PMIERs through our operational activities or through the contribution of funds from our holding company, subject to demands on the holding company's resources, as outlined above.

RISK-TO-CAPITAL

We compute our risk-to-capital ratio on a separate company statutory basis, as well as on a combined insurance operations basis. The risk-to-capital ratio is our net RIF divided by our policyholders' position. Our net RIF includes both primary and pool RIF and excludes risk on policies that are currently in default and for which case loss reserves have been established and the risk covered by reinsurance. The risk amount includes pools of loans with contractual aggregate loss limits and without these limits. Policyholders' position consists primarily of statutory policyholders' surplus (which increases as a result of statutory net income and decreases as a result of statutory net loss and dividends paid), plus the statutory contingency reserve and a portion of the reserves for unearned premiums. The statutory contingency reserve is reported as a liability on the statutory balance sheet. A mortgage insurance company is required to make annual additions to a contingency reserve of approximately 50% of net earned premiums. These contributions must generally be maintained for a period of ten years. However, with regulatory approval a mortgage insurance company may make early withdrawals from the contingency reserve when incurred losses exceed 35% of net earned premiums in a calendar year.

The table below presents MGIC's separate company risk-to-capital calculation.

Risk-to-capital - MGIC separate company

	December 31,	
(In millions, except ratio)	**2019**	2018
RIF - net [(1)]	**$ 44,338**	**$ 34,502**
Statutory policyholders' surplus	**$ 1,619**	**$ 1,682**
Statutory contingency reserve	**2,963**	**2,138**
Statutory policyholders' position	**$ 4,582**	**$ 3,820**
Risk-to-capital	**9.7:1**	**9.0:1**

(1) RIF – net, as shown in the table above, is net of reinsurance and exposure on policies currently delinquent and for which case loss reserves have been established.

The table below presents our combined insurance companies' risk-to-capital calculation (which includes a reinsurance affiliate).

Risk-to-capital - Combined insurance companies

	December 31,	
(In millions, except ratio)	**2019**	2018
RIF - net [(1)]	**$ 44,550**	**$ 40,239**
Statutory policyholders' surplus	**$ 1,619**	**$ 1,683**
Statutory contingency reserve	**3,021**	**2,443**
Statutory policyholders' position	**$ 4,640**	**$ 4,126**
Risk-to-capital	**9.6:1**	**9.8:1**

(1) RIF – net, as shown in the table above, is net of reinsurance and exposure on policies currently delinquent ($1.5 billion at December 31, 2019 and $1.6 billion at December 31, 2018) and for which case loss reserves have been established.

The 2019 increase in risk-to-capital of MGIC is due to an increase in net RIF, offset by an increase in statutory policyholders' position, primarily due to an increase in statutory contingency reserves. The reductions in the risk-to-capital of our combined insurance companies were due to an increase in statutory policyholders' position, primarily due to an increase in statutory contingency reserves, partially offset by an increase in net RIF. Our RIF, net of reinsurance, increased in 2019, due to an increase in our IIF and a reduction in our ceded RIF under our 2015 QSR Transaction. Our risk-to-capital ratio will decrease if the percentage increase in capital exceeds the percentage increase in insured risk.

In the first quarter of 2020, we received the appropriate approvals for MGIC to pay our holding company a special dividend of $320 million. The $320 million special dividend will reduce the statutory policyholder's position of MGIC, which will result in an increase to the risk-to-capital.

For additional information regarding regulatory capital see Note 14 – "Statutory Information" to our consolidated financial statements as well as our risk factor titled "State capital requirements may prevent us from continuing to write new insurance on an uninterrupted basis."

Financial Strength Ratings

MGIC financial strength ratings

Rating Agency	Rating	Outlook
Moody's Investor Services	Baa1	Stable
Standard and Poor's Rating Services	BBB+	Stable
A.M. Best	A-	Stable

For further information about the importance of MGIC's ratings, see our risk factor titled "Competition or changes in our relationships with our customers could reduce our revenues, reduce our premium yields and/or increase our losses."

MAC financial strength ratings

Rating Agency	Rating	Outlook
A.M. Best	A-	Stable

Contractual Obligations

The following table summarizes, as of December 31, 2019, the approximate future payments under our contractual obligations and estimated claim payments on established loss reserves.

Contractual obligations

	Payments due by period				
		Less than			More than
(In millions)	**Total**	1 year	1-3 years	3-5 years	5 years
Long-term debt obligations	**1,949.7**	50.7	101.1	651.0	1,146.9
Operating lease obligations	**2.3**	1.2	1.0	0.1	—
Purchase obligations	**9.1**	6.5	2.6	—	—
Other long-term liabilities	**555.3**	208.2	252.1	95.0	—
Total	**2,516.4**	266.6	356.8	746.1	1,146.9

Our long-term debt obligations as of December 31, 2019 include their related interest and are discussed in Note 7 – "Debt" to our consolidated financial statements and under "Liquidity and Capital Resources" above. Our operating lease obligations include operating leases on certain office space, data processing equipment and autos, as discussed in Note 16 – "Leases" to our consolidated financial statements. Purchase obligations consist primarily of agreements to purchase items related to our ongoing infrastructure projects and information technology investments in the normal course of business.

Our other long-term liabilities represent case and LAE loss reserves established to recognize the liability for losses and LAE related to existing delinquencies on insured mortgage loans. The timing of the future claim payments associated with the established case loss reserves was determined primarily based on two key assumptions: the length of time it takes for a notice of delinquency to develop into a received claim and the length of time it takes for a received claim to be ultimately paid. The future claim payment periods are estimated based on historical experience, and could emerge differently than this estimate, in part, due to uncertainty regarding the impact of certain factors, such as loss mitigation protocols established by servicers and changes in some state foreclosure laws that may include, for example, a requirement for additional review and/or mediation process. See Note 8 – "Loss Reserves" to our consolidated financial statements and "Critical Accounting Policies" below for additional information on our loss reserves. In accordance with GAAP for the mortgage insurance industry, we establish case loss reserves only for delinquent loans. Because our reserving method does not take account of the impact of future losses that could occur from loans that are not delinquent, our obligation for ultimate losses that we expect to occur under our policies in force at any period end is not reflected in our consolidated financial statements or in the table above.

Benefit Plans

We have a non-contributory defined benefit pension plan covering substantially all domestic employees, as well as a supplemental executive retirement plan. Retirement benefits are based on compensation and years of service. We maintain plan assets to fund our defined benefit pension plan obligations. We did not have a minimum funding requirement for the defined benefit pension plan for 2019 or 2018 and do not anticipate having a minimum funding requirement in 2020. We have significant discretion in making contributions above those necessary to satisfy the minimum funding requirements. In 2019 and 2018, we voluntarily made contributions totaling $7.1 million, and $10.0 million, respectively. We plan to make a voluntary contribution of approximately $6.5 million to the defined benefit pension plan in 2020. In determining future contributions, we will consider the performance of the plan's investment portfolio, the effects of interest rates on the projected benefit obligation of the plan and our other capital requirements. As of December 31, 2019, we had accrued a liability of $3.1 million related to our defined benefit pension plan as the projected obligation was in excess of plan assets. The supplemental executive retirement plan benefits are accrued for and are paid from MGIC assets following employee retirements. We plan to pay benefits of approximately $6 million under the supplemental executive retirement plan in 2020.

Our projected benefit obligations under these plans are subject to numerous actuarial assumptions that may change in the future and as a result could substantially increase or decrease our obligations. Plan assets held to pay our defined benefit pension plan obligations are primarily invested in a portfolio of debt securities to preserve capital and to provide monthly cash flows aligned with the liability component of our obligations, with a lesser percentage invested in a mix of equity securities. If the performance of our invested plan assets differs from our expectations, the funded status of the benefit pension plan may decline, even with no significant change in the obligations. See Note 11 - "Benefit Plans" to our consolidated financial statements for a complete discussion of these plans and their effect on the consolidated financial statements.

CRITICAL ACCOUNTING POLICIES

The accounting policies described below require significant judgments and estimates in the preparation of our consolidated financial statements.

LOSS RESERVES

Loss reserves include case reserves, IBNR reserves, and LAE reserves.

Case Reserves

Case reserves are established for estimated insurance losses when notices of delinquency on insured mortgage loans are received. For reporting purposes, we consider a loan delinquent when it is two or more payments past due. Even though the accounting standard, ASC 944, regarding accounting and reporting by insurance entities specifically excluded mortgage insurance from its guidance relating to loss reserves, we establish loss reserves using the general principles contained in the insurance standard. However, consistent with industry standards for mortgage insurers, we do not establish loss reserves for future claims on insured loans which are not currently delinquent.

We establish reserves using estimated claim rates and claim severities in estimating the ultimate loss.

The estimated claim rates and claim severities are used to determine the amount we estimate will actually be paid on the delinquent loans as of the reserve date. If a policy is rescinded we do not expect that it will result in a claim payment and thus the rescission generally reduces the historical claim rate used in establishing reserves. In addition, if a loan cures its delinquency, including through a successful loan modification, the cure reduces the historical claim rate used in establishing reserves. Our methodology to estimate claim rates and claim severities is based on our review of recent trends in the delinquent inventory. To establish reserves, we utilize a reserving model that continually incorporates historical data into the estimated claim rate. The model also incorporates an estimate for the amount of the claim we will pay, or severity. The severity is estimated using the historical percentage of our claims paid compared to our loan exposures, as well as the RIF of the loans currently in default. We do not utilize an explicit rescission rate in our reserving methodology, but rather our reserving methodology incorporates the effects rescission activity has had on our historical claim rate and claim severities. We review recent trends in the claim rate, severity, levels of defaults by geography and average loan exposure. As a result, the process to determine reserves does not include quantitative ranges of outcomes that are reasonably likely to occur.

The claim rates and claim severities are affected by external events, including actual economic conditions such as changes in unemployment rates, interest rates or housing values; and natural disasters. Our estimation process does not include a correlation between claim rates and claim severities to projected economic conditions such as changes in unemployment rates, interest rates or housing values. Our experience is that analysis of that nature would not produce reliable results as the change in one economic condition cannot be isolated to determine its specific effect on our ultimate paid losses because each economic condition is also influenced by other economic conditions. Additionally, the changes and interactions of these economic conditions are not likely homogeneous throughout the regions in which we conduct business. Each economic condition influences our ultimate paid losses differently, even if apparently similar in nature. Furthermore, changes in economic conditions may not necessarily be reflected in our loss development in the quarter or year in which the changes occur. Actual claim results often lag changes in economic conditions by at least nine to twelve months.

Our estimates are also affected by any agreements we enter into regarding our claims paying practices, such as the settlement agreements discussed in Note 17 – "Litigation and Contingencies" to our consolidated financial statements.

Our estimate of loss reserves is sensitive to changes in claim rate and claim severity; it is possible that even a relatively small change in our estimated claim rate or severity could have a material impact on reserves and, correspondingly, on our consolidated results of operations even in a stable economic environment. For example, as of December 31, 2019, assuming all other factors remain constant, a $1,000 increase/decrease in the average severity reserve factor would change the reserve amount by approximately +/- $10 million. A one percentage point increase/decrease in the average claim rate reserve factor would change the reserve amount by approximately +/- $17 million. Historically, it has not been uncommon for us to experience variability in the development of the loss reserves through the end of the following year at this level or higher, as shown by the historical development of our loss reserves in the table below:

Historical development of loss reserves

(In thousands)	Losses incurred related to prior years [1]	Reserve at end of prior year
2019	(71,006)	674,019
2018	(167,366)	985,635
2017	(231,204)	1,438,813
2016	(147,658)	1,893,402
2015	(110,302)	2,396,807

(1) A negative number for a prior year indicates a redundancy of loss reserves.

See Note 8 – "Loss Reserves" to our consolidated financial statements for a discussion of recent loss development.

IBNR Reserves

Reserves are established for estimated IBNR, which results from delinquencies occurring prior to the close of an accounting period, but which have not been reported to us. Consistent with reserves for reported delinquencies, IBNR reserves are established using estimated claim rates and claim severities for the estimated number of delinquencies not reported. As of December 31, 2019 and 2018, we had IBNR reserves of approximately $23 million and $29 million, respectively.

The actual amount of the claim payments may be substantially different than our loss reserve estimates. Our estimates could be adversely affected by several factors, including a deterioration of regional or national economic conditions, including unemployment, leading to a reduction in borrower income and thus their ability to make mortgage payments, and a drop in housing values, that could result in, among other things, greater losses on loans, and may affect borrower willingness to continue to make mortgage payments when the value of the home is below the mortgage balance.

LAE Reserves

LAE reserves are established for the estimated costs of settling claims, including legal and other expenses and general expenses of administering the claims settlement process.

REVENUE RECOGNITION

When a policy term ends, the primary mortgage insurance written by us is renewable at the insured's option through continued payment of the premium in accordance with the schedule established at the inception of the policy life. We are generally obligated to renew the policies and have no ability to re-underwrite or reprice these policies after issuance. Premiums written on monthly premium policies are earned as coverage is provided. Premiums written on single premium policies and annual premium policies are initially deferred as unearned premium reserve and earned over the estimated policy life. Premiums written on policies covering more than one year are amortized over the policy life based on historical experience, which includes the anticipated incurred loss pattern. Premiums written on annual premium policies are earned on a monthly pro rata basis. When a policy is cancelled, all premium that is non-refundable is immediately earned. Any refundable premium is returned to the servicer or borrower. Policies may be cancelled by the insured, or due to rescissions or claim payments. When a policy is rescinded, all previously collected premium is returned to the servicer and when a claim is paid, all premium collected since the date of default is returned. The liability associated with our estimate of premium to be returned is accrued for separately and this liability is included in "Other liabilities" on our consolidated balance sheets. Changes in these liabilities and the actual return of premium affect premiums written and earned.

Fee income of our non-insurance subsidiaries is earned and recognized as the services are provided and the customer is obligated to pay.

DEFERRED INSURANCE POLICY ACQUISITION COSTS

Costs directly associated with the successful acquisition of mortgage insurance business, consisting of employee compensation and other policy issuance and underwriting expenses, are initially deferred and reported as deferred insurance policy acquisition costs ("DAC"). The deferred costs are net of any ceding commissions received associated with our reinsurance transactions. For each underwriting year of business, these costs are amortized to income in proportion to estimated gross profits over the estimated life of the policies. We utilize anticipated investment income in our calculation. This includes accruing interest on the unamortized balance of DAC. The estimates for each underwriting year are reviewed quarterly and updated when necessary to reflect actual experience and any changes to key variables such as persistency or loss development.

Because our insurance premiums are earned over time, changes in persistency result in DAC being amortized against revenue over a longer or shorter period of time. However, even a 10% change in persistency would not have a material effect on the amortization of DAC in the subsequent year.

FAIR VALUE MEASUREMENTS

Investment Portfolio

Fixed income securities. Our fixed income securities are classified as available-for-sale and are reported at fair value. The related unrealized investment gains or losses are, after considering the related tax expense or benefit, recognized as a component of accumulated other comprehensive income (loss) in shareholders' equity. Realized investment gains and losses on fixed income securities are reported in income based upon specific identification of securities sold, as well as any "other than temporary" impairments ("OTTI") recognized in earnings.

Equity securities. At December 31, 2017, equity securities were classified as available-for-sale and were reported at fair value, except for certain equity securities that were carried at cost, for which the amount reported approximated fair value. These equity securities carried at cost were reported as Other invested assets at December 31, 2018, as required under ASU 2016-01. The updated guidance also requires, effective January 1, 2018, the periodic change in fair value of equity securities to be recognized as realized investment gains and losses. For periods prior, realized investment gains and losses on equity securities were a function of the difference between the amount received on the sale of an equity security and the equity security's cost basis, as well as any OTTI recognized in earnings.

Other invested assets. Other invested assets are carried at cost. These assets represent our investment in FHLB stock, which due to restrictions, is required to be redeemed or sold only to the security issuer at par value.

In accordance with fair value guidance, we applied the following fair value hierarchy in order to measure fair value for assets and liabilities:

➔ Level 1	Quoted prices for identical instruments in active markets that we can access. Financial assets using Level 1 inputs primarily include U.S. Treasury securities, money market funds, and certain equity securities.
➔ Level 2	Quoted prices for similar instruments in active markets that we can access; quoted prices for identical or similar instruments in markets that are not active; and inputs, other than quoted prices, that are observable in the marketplace for the instrument. The observable inputs are used in valuation models to calculate the fair value of the instruments. Financial assets using Level 2 inputs primarily include obligations of U.S. government corporations and agencies, corporate bonds, mortgage-backed securities, asset-backed securities, and most municipal bonds. The independent pricing sources used for our Level 2 investments vary by type of investment. See Note 6 - "Fair Value Measurements" for further information.
➔ Level 3	Valuations derived from valuation techniques in which one or more significant inputs or value drivers are unobservable or, from par values due to restrictions on certain securities that require them to be redeemed or sold only to the security issuer at par value. The inputs used to derive the fair value of Level 3 securities reflect our own assumptions about the assumptions a market participant would use in pricing an asset or liability. Financial assets using Level 3 inputs include obligations of U.S. states and political subdivisions and certain equity securities (2017 only). Our non-financial assets that are classified as Level 3 securities consist of real estate acquired through claim settlement. The fair value of real estate acquired is the lower of our acquisition cost or a percentage of the appraised value. The percentage applied to the appraised value is based upon our historical sales experience adjusted for current trends.

To determine the fair value of securities available-for-sale in Level 1 and Level 2 of the fair value hierarchy, independent pricing sources have been utilized. One price is provided per security based on observable market data. To ensure securities are appropriately classified in the fair value hierarchy, we review the pricing techniques and methodologies of the independent pricing sources and believe that their policies adequately consider market activity, either based on specific transactions for the issue valued or based on modeling of securities with similar credit quality, duration, yield and structure that were recently traded. A variety of inputs are utilized; in approximate order of priority, they are: benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two sided markets, benchmark securities, bids, offers and reference data including data published in market research publications.

Market indicators, industry and economic events are also considered. This information is evaluated using a multidimensional pricing model. This model combines all inputs to arrive at a value assigned to each security. Quality controls are performed by the independent pricing sources throughout this process, which include reviewing tolerance reports, data changes, and directional moves compared to market moves. In addition, on a quarterly basis, we perform quality controls over values received from the pricing sources which also include reviewing tolerance reports, trading information, data changes, and directional moves compared to market moves. We have not made any adjustments to the prices obtained from the independent pricing sources.

Unrealized losses and OTTI

Each quarter we perform reviews of our investments in order to determine whether declines in fair value below amortized cost were considered other-than-temporary. In evaluating whether a decline in fair value is other-than-temporary, we consider several factors including, but not limited to:

- our intent to sell the security or whether it is more likely than not that we will be required to sell the security before recovery of its amortized cost basis;
- the present value of the discounted cash flows we expect to collect compared to the amortized cost basis of the security;
- extent and duration of the decline;
- failure of the issuer to make scheduled interest or principal payments;
- change in rating below investment grade; and
- adverse conditions specifically related to the security, an industry, or a geographic area.

Based on our evaluation, we will record an OTTI adjustment on a security if we intend to sell the impaired security, if it is more likely than not that we will be required to sell the impaired security prior to recovery of its amortized cost basis, or if the present value of the discounted cash flows we expect to collect is less than the amortized costs basis of the security. If the fair value of a security is below its amortized cost at the time of our intent to sell, the security is classified as other-than-temporarily impaired and the full amount of the impairment is recognized as a loss in the statement of operations. Otherwise, when a security is considered to be other-than-temporarily impaired, the losses are separated into the portion of the loss that represents the credit loss; and the portion that is due to other factors. The credit loss portion is recognized as a loss in the statement of operations, while the loss due to other factors is recognized in accumulated other comprehensive income (loss), net of taxes. A credit loss is determined to exist if the present value of the discounted cash flows, using the security’s original yield, expected to be collected from the security is less than the cost basis of the security.

Fair Value Option

For the years ended December 31, 2019, 2018, and 2017, we did not elect the fair value option for any financial instruments acquired, or issued, such as our outstanding debt obligations, for which the primary basis of accounting is not fair value.

Glossary of terms and acronyms

/ A

ARMs
Adjustable rate mortgages

ABS
Asset-backed securities

ASC
Accounting Standards Codification

Available Assets
Assets, as designated under the PMIERs, that are readily available to pay claims, and include the most liquid assets

/ B

Book or book year
A group of loans insured in a particular calendar year

BPMI
Borrower-paid mortgage insurance

/ C

CECL
Current expected credit losses

CFPB
Consumer Financial Protection Bureau

CLO
Collateralized loan obligations

CMBS
Commercial mortgage-backed securities

CRT
Credit Risk Transfer. The transfer of a portion of mortgage credit risk to the private sector through different forms of transactions and structures

/ D

DAC
Deferred insurance policy acquisition costs

Debt-to-income ("DTI") ratio
The ratio, expressed as a percentage, of a borrower's total debt payments to gross income

Direct
Direct means before giving effect to reinsurance

/E

EPS
Earnings per share

/ F

Fannie Mae
Federal National Mortgage Association

FCRA
Fair Credit Reporting Act

FHA
Federal Housing Administration

FHFA
Federal Housing Finance Agency

FHLB
Federal Home Loan Bank of Chicago, of which MGIC is a member

FICO score
A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus

Freddie Mac
Federal Home Loan Mortgage Corporation

/ G

GAAP
Generally Accepted Accounting Principles in the United States

GSEs
Collectively, Fannie Mae and Freddie Mac

/ H

HAMP
Home Affordable Modification Program

HARP
Home Affordable Refinance Program

Home Re Transactions
Excess-of-loss reinsurance transactions with unaffiliated special purpose insurers domiciled in Bermuda

HOPA
Homeowners Protection Act

HUD
Housing and Urban Development

/ I

IBNR
Losses incurred but not reported

IIF

Insurance in force, which for loans insured by us, is equal to the unpaid principal balance, as reported to us

ILN
Insurance-linked notes

/ L

LAE
Loss adjustment expenses

Loan-to-value ("LTV") ratio
The ratio, expressed as a percentage, of the dollar amount of the first mortgage loan to the value of the property at the time the loan became insured and does not reflect subsequent housing price appreciation or depreciation. Subordinate mortgages may also be present

Long-term debt:

5.75% Notes
5.75% Senior Notes due on August 15, 2023, with interest payable semi-annually on February 15 and August 15 of each year

9% Debentures
9% Convertible Junior Subordinated Debentures due on April 1, 2063, with interest payable semi-annually on April 1 and October 1 of each year

FHLB Advance or the Advance
1.91% Fixed rate advance from the FHLB due on February 10, 2023, with interest payable monthly

Loss ratio
The ratio, expressed as a percentage, of the sum of incurred losses and loss adjustment expenses to NPE

Low down payment loans or mortgages
Loans with less than 20% down payments

LPMI
Lender-paid mortgage insurance

/ M

MBS
Mortgage-backed securities

MD&A
Management's discussion and analysis of financial condition and results of operations

MGIC
Mortgage Guaranty Insurance Corporation, a subsidiary of MGIC Investment Corporation

MAC
MGIC Assurance Corporation, a subsidiary of MGIC

Minimum Required Assets
The minimum amount of Available Assets that must be held under the PMIERs, which is based on an insurer's book of IIF and is calculated from tables of factors with several risk dimensions, reduced for credit given for risk ceded under reinsurance transactions, and subject to a floor of $400 million.

MPP
Minimum Policyholder Position, as required under certain state requirements. The “policyholder position” of a mortgage insurer is its net worth or surplus, contingency reserve and a portion of the reserves for unearned premiums

/ N

N/A
Not applicable for the period presented

NAIC
National Association of Insurance Commissioners

NIW
New Insurance Written, is the aggregate original principal amount of the mortgages that are insured during a period

N/M
Data, or calculation, deemed not meaningful for the period presented

NPE
The amount of premiums earned, net of premiums assumed and ceded under reinsurance agreements

NPL
Non-performing loan, which is a delinquent loan, at any stage in its delinquency

NPW
The amount of premiums written, net of premiums assumed and ceded under reinsurance agreements

/ O

OCI
Office of the Commissioner of Insurance of the State of Wisconsin

OTTI
Other than temporary impairment

/ P

Persistency
The percentage of our insurance remaining in force from one year prior

PMI
Private Mortgage Insurance (as an industry or product type)

PMIERs
Private Mortgage Insurer Eligibility Requirements issued by each of Fannie Mae and Freddie Mac to set forth requirements that an approved insurer must meet and maintain to provide mortgage guaranty insurance on loans delivered to or acquired by Fannie Mae or Freddie Mac, as applicable

Premium Yield
The ratio of NPE divided by the average IIF outstanding for the period measured

Premium Rate
The contractual rate charged for coverage under our insurance policies.

Primary Insurance
Insurance that provides mortgage default protection on individual loans. Primary insurance may be written on a "flow" basis, in which loans are insured in individual, loan-by-loan transactions, or on a "bulk" basis, in which each loan in a portfolio of loans is individually insured in a single bulk transaction

/ Q

QSR Transaction
Quota share reinsurance transaction with a group of unaffiliated reinsurers

QM
A mortgage loan that satisfies the "qualified mortgage" loan characteristics pursuant to the Consumer Financial Protection Bureau's ability-to-repay under the Truth in Lending Act. Originating a QM loan may provide a lender with legal protection from lawsuits that claim the lender failed to verify a borrower's ability to repay

/ R

RESPA
Real Estate Settlement Procedures Act

RIF
Risk in force, which for an individual loan insured by us, is equal to the unpaid loan principal balance, as reported to us, multiplied by the insurance coverage percentage. RIF is sometimes referred to as exposure

Risk-to-capital
Under certain state regulations, the ratio of RIF, net of reinsurance and exposure on policies currently in default and for which loss reserves have been established, to the level of statutory capital

RMBS
Residential mortgage-backed securities

/ S

State Capital Requirements
Under certain state regulations, the minimum amount of statutory capital relative to risk in force (or similar measure)

/ T

TILA
Truth in Lending Act

Tax Act
The U.S. tax reform enacted on December 22, 2017 and commonly referred to as the "Tax Cuts and Jobs Act"

/ U

Underwriting Expense Ratio
The ratio, expressed as a percentage, of the underwriting and operating expenses, net and amortization of DAC of our combined insurance operations (which excludes underwriting and operating expenses of our non-insurance subsidiaries) to NPW

Underwriting profit
NPE minus incurred losses and underwriting and operating expenses

USDA
U.S. Department of Agriculture

/ V

VA
U.S. Department of Veterans Affairs

VIE
Variable interest entity

Quantitative and Qualitative Disclosures About Market Risk

Our investment portfolio is essentially a fixed income portfolio and is exposed to market risk. Important drivers of the market risk are credit spread risk and interest rate risk.

Credit spread risk is the risk that we will incur a loss due to adverse changes in credit spreads. Credit spread is the additional yield on fixed income securities above the risk-free rate (typically referenced as the yield on U.S. Treasury securities) that market participants require to compensate them for assuming credit, liquidity and/or prepayment risks.

We manage credit risk via our investment policy guidelines which primarily place our investments in investment grade securities and limit the amount of our credit exposure to any one issue, issuer and type of instrument.

Interest rate risk is the risk that we will incur a loss due to adverse changes in interest rates relative to the characteristics of our interest bearing assets.

One of the measures used to quantify interest rate this exposure is modified duration. Modified duration measures the price sensitivity of the assets to the changes in spreads. At December 31, 2019, the modified duration of our fixed income investment portfolio was 3.9 years, which means that an instantaneous parallel shift in the yield curve of 100 basis points would result in a change of 3.9% in the fair value of our fixed income portfolio. For an upward shift in the yield curve, the fair value of our portfolio would decrease and for a downward shift in the yield curve, the fair value would increase. A discussion of portfolio strategy appears in "Management's Discussion and Analysis – Balance Sheet Review–Investment Portfolio."

Risk Factors

As used below, “we,” “our” and “us” refer to MGIC Investment Corporation’s consolidated operations or to MGIC Investment Corporation, as the context requires; and “MGIC” refers to Mortgage Guaranty Insurance Corporation.

Our actual results could be affected by the risk factors below. These risk factors are an integral part of this annual report. These risk factors may also cause actual results to differ materially from the results contemplated by forward looking statements that we may make. Forward looking statements consist of statements which relate to matters other than historical fact, including matters that inherently refer to future events. Among others, statements that include words such as “believe,” “anticipate,” “will” or “expect,” or words of similar import, are forward looking statements. We are not undertaking any obligation to update any forward looking statements or other statements we may make even though these statements may be affected by events or circumstances occurring after the forward looking statements or other statements were made. No reader of this annual report should rely on these statements being current at any time other than the time at which this annual report was filed with the Securities and Exchange Commission.

Competition or changes in our relationships with our customers could reduce our revenues, reduce our premium yields and / or increase our losses.

The private mortgage insurance industry is highly competitive and is expected to remain so. We believe we currently compete with other private mortgage insurers based on premium rates, underwriting requirements, financial strength (including based on credit or financial strength ratings), customer relationships, name recognition, reputation, strength of management teams and field organizations, the ancillary products and services provided to lenders and the effective use of technology and innovation in the delivery and servicing of our mortgage insurance products.

Our relationships with our customers, which may affect the amount of our NIW, could be adversely affected by a variety of factors, including if our premium rates are higher than those of our competitors, our underwriting requirements are more restrictive than those of our competitors, or our customers are dissatisfied with our claims-paying practices (including insurance policy rescissions and claim curtailments).

Much of the competition in the industry in the last few years has centered on pricing practices which have included: (i) reductions in standard filed rates; (ii) use of customized rate plans (typically lower than standard rates) that are made available to lenders that meet certain criteria; and (iii) use of a spectrum of filed rates to allow for formulaic, risk-based pricing that may be quickly adjusted within certain parameters (referred to as "risk-based pricing systems"). We expect premium rates to continue to decline. While our increased use of reinsurance over the past several years has helped to mitigate the negative effect of declining premium rates on our returns, refer to our risk factor titled *"Reinsurance may not always be available or affordable"* for a discussion of the risks associated with the availability of reinsurance.

In 2019, we introduced MiQ, our risk-based pricing system that establishes our premium rates based on more risk attributes than were considered in 2018. The widespread use of risk-based pricing systems by the private mortgage insurance industry makes it more difficult to compare our rates to those offered by our competitors. We may not be aware of industry rate changes until we observe that our volume of new insurance written ("NIW") has changed. In addition, business under customized rate plans is awarded by certain customers for only limited periods of time. As a result, our NIW may fluctuate more than it had in the past. Regarding the concentration of our new business, our top ten customers accounted for approximately 24% of our NIW, in each of the twelve months ended December 31, 2018 and 2019.

We monitor various competitive and economic factors while seeking to balance both profitability and market share considerations in developing our pricing strategies. A reduction in our premium rates will reduce our premium yield (net premiums earned divided by the average insurance in force) over time as older insurance policies with higher premium rates run off and new insurance policies with lower premium rates are written. Our premium rates are subject to approval by state regulatory agencies, which can delay or limit our ability to change them, outside of the parameters already approved.

There can be no assurance that our premium rates adequately reflect the risk associated with the underlying mortgage insurance policies. For additional information, see our risk factors titled “*The premiums we charge may not be adequate to compensate us for our liabilities for losses and as a result any inadequacy could materially affect our financial condition and results of operations*" and "*If our risk management programs are not effective in identifying, or adequate in controlling or mitigating, the risks we face, or if the models used in our businesses are inaccurate, it could have a material adverse impact on our business, results of operations and financial condition.*"

Certain of our competitors have access to capital at a lower cost than we do (including, through off-shore reinsurance vehicles, which are tax-advantaged). As a result, they may be able to achieve higher after-tax rates of return on their NIW compared to us, which could allow them to leverage reduced premium rates to gain market share, and they may be better positioned to compete outside of traditional mortgage insurance, including by participating in alternative forms of credit enhancement pursued by Fannie Mae and Freddie Mac (the "GSEs") discussed in our risk factor titled *"The amount of insurance we write could be adversely affected if lenders and investors select alternatives to private mortgage insurance*."

Substantially all of our insurance written since 2008 has been for loans purchased by the GSEs. The current private mortgage insurer eligibility requirements ("PMIERs") of each of the GSEs require a mortgage insurer to maintain a minimum amount of assets to support its insured risk, as discussed in our risk factor titled *"We may not continue to meet the GSEs' private mortgage insurer eligibility requirements and our returns may decrease if we are required to maintain more capital in order to maintain our eligibility."* The PMIERs do not require an insurer to maintain minimum financial strength ratings; however, our financial strength ratings can affect us in the following ways:

- A downgrade in our financial strength ratings could result in increased scrutiny of our financial condition by the GSEs and/or our customers, potentially resulting in a decrease in the amount of our NIW.

- Our ability to participate in the non-GSE mortgage market (the size of which has been limited since 2008, but may grow in the future), could depend on our ability to maintain and improve our investment grade ratings for our insurance subsidiaries. We could be competitively disadvantaged with some market participants because the financial strength ratings of our insurance subsidiaries are lower than those of some competitors. MGIC's financial strength rating from A.M. Best is A- (with a stable outlook), from Moody's is Baa1 (with a stable outlook) and from Standard & Poor's is BBB+ (with a stable outlook).

- Financial strength ratings may also play a greater role if the GSEs no longer operate in their current capacities, for example, due to legislative or regulatory action. In addition, although the PMIERs do not require minimum financial strength ratings, the GSEs consider financial strength ratings to be important when using forms of credit enhancement other than traditional mortgage insurance, as discussed in our risk factor titled *"The amount of insurance we write could be adversely affected if lenders and investors select alternatives to private mortgage insurance."*

If we are unable to compete effectively in the current or any future markets as a result of the financial strength ratings assigned to our insurance subsidiaries, our future new insurance written could be negatively affected.

The amount of insurance we write could be adversely affected if lenders and investors select alternatives to private mortgage insurance.

Alternatives to private mortgage insurance include:

- investors using risk mitigation and credit risk transfer techniques other than private mortgage insurance,

- lenders and other investors holding mortgages in portfolio and self-insuring,

- lenders using Federal Housing Administration ("FHA"), U.S. Department of Veterans Affairs ("VA") and other government mortgage insurance programs, and

- lenders originating mortgages using piggyback structures to avoid private mortgage insurance, such as a first mortgage with an 80% loan-to-value ("LTV") ratio and a second mortgage with a 10%, 15% or 20% LTV ratio (referred to as 80-10-10, 80-15-5 or 80-20 loans, respectively) rather than a first mortgage with a 90%, 95% or 100% LTV ratio that has private mortgage insurance.

The GSEs' charters generally require credit enhancement for a low down payment mortgage loan (a loan with an amount that exceeds 80% of a home's value) in order for such loan to be eligible for purchase by the GSEs. Private mortgage insurance has generally been purchased by lenders in primary mortgage market transactions to satisfy this credit enhancement requirement. In 2018, Freddie Mac and Fannie Mae initiated secondary mortgage market programs with loan level mortgage default coverage provided by various (re)insurers that are not mortgage insurers governed by PMIERs, and that are not selected by the lenders. These programs compete with traditional private mortgage insurance and, due to differences in policy terms, they may offer premium rates that are below prevalent single premium lender paid mortgage insurance ("LPMI") rates. We participate in these programs from time to time. See our risk factor titled *"Changes in the business practices of the GSEs, federal legislation that changes their charters or a restructuring of the GSEs could reduce our revenues or increase our losses"* for a discussion of various business practices of the GSEs that may be changed, including through expansion or modification of these programs.

The GSEs (and other investors) have also used other forms of credit enhancement that did not involve traditional private mortgage insurance, such as engaging in credit-linked note transactions executed in the capital markets, or using other forms of debt issuances or securitizations that transfer credit risk directly to other investors, including competitors and an affiliate of MGIC; using other risk mitigation techniques in conjunction with reduced levels of private mortgage insurance coverage; or accepting credit risk without credit enhancement.

The GSEs' charters also permit the use of "Lender Risk Sharing" transactions as a form of credit enhancement. In these transactions, the lender may issue securities to transfer all or a portion of its risk or the lender may retain the credit risk. While the use of Lender Risk Sharing transactions has recently been increasing, we are not aware that their use has displaced private mortgage insurance. The amount of business we write would be adversely affected if Lender Risk Sharing transactions are structured in a manner that displaces private mortgage insurance.

The FHA's share of the low down payment residential mortgages that were subject to FHA, VA, USDA or primary private mortgage insurance was 28.2% in 2019, 30.5% in 2018 and 33.9% in 2017. In the past ten years, the FHA's share has been as low as 28.2% in 2019 and as high as 64.5% in 2010. Factors that influence the FHA's market share include relative rates and fees, underwriting guidelines and loan limits of the FHA, VA, private mortgage insurers and the GSEs; lenders' perceptions of legal risks under FHA versus GSE programs; flexibility for the FHA to establish new products as a result of federal legislation and programs; returns expected to be obtained by lenders for Ginnie Mae securitization of FHA-insured loans compared to those obtained from selling loans to the GSEs for securitization; and differences in policy terms, such as the ability of a borrower to cancel insurance coverage under certain circumstances. We cannot predict how the factors that affect the FHA's share of new insurance written will change in the future.

The VA's share of the low down payment residential mortgages that were subject to FHA, VA, USDA or primary private mortgage insurance was 25.2% in 2019, 22.9% in 2018 and 24.7% in 2017. In the past ten years, the VA's share has been as low as 15.7% in 2010 and as high as 27.2% in 2016. We believe that the VA's market share has generally been elevated in recent years because of an increase in the number of borrowers that are eligible for the VA's program, which offers 100% LTV ratio loans and charges a one-time funding fee that can be included in the loan amount, and because eligible borrowers have opted to use the VA program when refinancing their mortgages.

Changes in the business practices of the GSEs, federal legislation that changes their charters or a restructuring of the GSEs could reduce our revenues or increase our losses.

Substantially all of our insurance written since 2008 has been for loans purchased by the GSEs, therefore, the business practices of the GSEs greatly impact our business and include:

- the GSEs' PMIERs, the financial requirements of which are discussed in our risk factor titled *"We may not continue to meet the GSEs' private mortgage insurer eligibility requirements and our returns may decrease if we are required to maintain more capital in order to maintain our eligibility,"*

- the capital and collateral requirements for participants in the GSEs' alternative forms of credit enhancement discussed in our risk factor titled *"The amount of insurance we write could be adversely affected if lenders and investors select alternatives to private mortgage insurance,"*

- the level of private mortgage insurance coverage, subject to the limitations of the GSEs' charters, when private mortgage insurance is used as the required credit enhancement on low down payment mortgages (the GSEs generally require a level of mortgage insurance coverage that is higher than the level of coverage required by their charters; any change in the required level of coverage will impact our new risk written),

- the amount of loan level price adjustments and guaranty fees (which result in higher costs to borrowers) that the GSEs assess on loans that require private mortgage insurance,

- whether the GSEs select or influence the mortgage lender's selection of the mortgage insurer providing coverage,

- the underwriting standards that determine which loans are eligible for purchase by the GSEs, which can affect the quality of the risk insured by the mortgage insurer and the availability of mortgage loans,

- the terms on which mortgage insurance coverage can be canceled before reaching the cancellation thresholds established by law,

- the programs established by the GSEs intended to avoid or mitigate loss on insured mortgages and the circumstances in which mortgage servicers must implement such programs,

- the terms that the GSEs require to be included in mortgage insurance policies for loans that they purchase, including limitations on the rescission rights of mortgage insurers,

- the extent to which the GSEs intervene in mortgage insurers' claims paying practices, rescission practices or rescission settlement practices with lenders, and

- the maximum loan limits of the GSEs compared to those of the FHA and other investors.

The FHFA has been the conservator of the GSEs since 2008 and has the authority to control and direct their operations. The increased role that the federal government has assumed in the residential housing finance system through the GSE conservatorship may increase the likelihood that the business practices of the GSEs change, including through administrative action, in ways that have a material adverse effect on us and that the charters of the GSEs are changed by new federal legislation.

In September 2019, at the direction of President Trump, the U.S. Treasury Department ("Treasury") released the "Treasury Housing Reform Plan" (the "Plan"). The Plan recommends administrative and legislative reforms for the housing finance system, with such reforms intended to achieve the goals of ending the conservatorships of the GSEs; increasing competition and participation by the private sector in the mortgage market including by authorizing the FHFA to approve additional guarantors of conventional mortgages in the secondary market, simplifying the qualified mortgage ("QM") rule of the Consumer Financial Protection Bureau ("CFPB"), transferring risk to the private sector, and eliminating the "GSE Patch" (discussed below); establishing regulation of the GSEs that safeguards their safety and soundness and minimizes the risks they pose to the financial stability of the United States; and providing that the federal government is properly compensated for any explicit or implicit support it provides to the GSEs or the secondary housing finance market. Also in September 2019, the Treasury and FHFA entered into a letter agreement that will allow the GSEs to remit less of their earnings to the government, which will help them rebuild their capital.

The impact of the Plan on private mortgage insurance is unclear. The Plan does not refer to mortgage insurance explicitly; however, it refers to a requirement for credit enhancement on high LTV ratio loans, which is a requirement of the current GSE charters. The Plan also indicates that the FHFA should continue to support efforts to expand credit risk transfer ("CRT") programs and should encourage the GSEs to continue to engage in a diverse mix of economically sensible CRT programs, including by increasing reliance on institution-level capital (presumably, as distinguished from capital obtained in the capital markets). For more information about CRT programs, see our risk factor titled "*The amount of insurance we write could be adversely affected if lenders and investors select alternatives to private mortgage insurance.*"

The current GSE Patch expands the definition of QM under the Truth in Lending Act (Regulation Z) ("TILA") to include mortgages eligible to be purchased by the GSEs, even if the mortgages do not meet the debt-to-income ("DTI") ratio limit of 43% that is included in the standard QM definition. Originating a QM may provide a lender with legal protection from lawsuits that claim the lender failed to verify a borrower's ability to repay. The GSE Patch is scheduled to expire no later than January 2021. Approximately 27% and 22% of our NIW in the first and second halves of 2019, respectively, was on loans with DTI ratios greater than 43%. However, it is possible that expiration of the GSE Patch will be delayed and that not all future loans with DTI ratios greater than 43% will be affected by such expiration. In this regard, we note that the CFPB recently indicated that it expects to issue for comment, no later than May 2020, a proposed new "ability-to-repay" ("ATR") rule that would replace the use of DTI ratio in the definition of QM with an alternative measure, such as a pricing threshold. The CFPB also indicated that it would extend the expiration of the GSE Patch until the earlier of the effective date of the proposed alternative or until one of the GSEs exits conservatorship.

We insure loans that do not qualify as QMs; however, we are unsure the extent to which lenders will make non-QM loans because they will not be entitled to the presumptions about compliance with the ATR rule that the law allows with respect to QM loans. We are also unsure the extent to which lenders will purchase private mortgage insurance for loans that cannot be sold to the GSEs.

The QM definition for loans insured by the FHA, which was issued by the Department of Housing and Urban Development ("HUD"), is less restrictive than the CFPB's definition in certain respects, including that (i) it has no DTI ratio limit, and (ii) it allows lenders certain presumptions about compliance with the ATR rule on higher priced loans. It is possible that, in the future, lenders will prefer FHA-insured loans to loans insured by private mortgage insurance as a result of the FHA's less restrictive QM definition. However, in September 2019, HUD released its Housing Reform Plan and indicated that the FHA should refocus on its mission of providing housing finance support to low- and moderate-income families that cannot be fulfilled through traditional underwriting. In addition, Treasury's Plan indicated that the FHFA and HUD should develop and implement a specific understanding as to the appropriate roles and overlap between the GSEs and FHA, including with respect to the GSEs' acquisitions of high LTV ratio and high DTI ratio loans.

As a result of the matters referred to above, it is uncertain what role the GSEs, FHA and private capital, including private mortgage insurance, will play in the residential housing finance system in the future. The timing and impact on our business of any resulting changes is uncertain. Many of the proposed changes would require Congressional action to implement and it is difficult to estimate when Congressional action would be final and how long any associated phase-in period may last.

We may not continue to meet the GSEs' private mortgage insurer eligibility requirements and our returns may decrease if we are required to maintain more capital in order to maintain our eligibility.

We must comply with a GSE's PMIERs to be eligible to insure loans delivered to or purchased by that GSE. The PMIERs include financial requirements, as well as business, quality control and certain transaction approval requirements. The financial requirements of the PMIERs require a mortgage insurer's "Available Assets" (generally only the most liquid assets of an insurer) to equal or exceed its "Minimum Required Assets" (which are based on an insurer's book of insurance in force and calculated from tables of factors with several risk dimensions, reduced for credit given for risk ceded under reinsurance agreements, and subject to a floor amount).

Based on our interpretation of the more restrictive application of PMIERs, as of December 31, 2019, MGIC's Available Assets totaled $4.6 billion, or $1.2 billion in excess of its Minimum Required Assets. MGIC is in compliance with the PMIERs and eligible to insure loans purchased by the GSEs. In calculating these "Minimum Required Assets," the total credit for risk ceded under our reinsurance transactions is subject to a modest reduction. Our reinsurance transactions are discussed in our risk factor titled *"The mix of business we write affects our Minimum Required Assets under the PMIERs, our premium yields and the likelihood of losses occurring."* Our existing reinsurance transactions are subject to periodic review by the GSEs and there is a risk we will not receive our current level of credit in future periods for the risk ceded under them. In addition, we may not receive the same level of credit under future reinsurance transactions that we receive under existing transactions. If MGIC is not allowed certain levels of credit under the PMIERs, under certain circumstances, MGIC may terminate the reinsurance transactions, without penalty.

If MGIC ceases to be eligible to insure loans purchased by one or both of the GSEs, it would significantly reduce the volume of our new business writings. Factors that may negatively impact MGIC's ability to continue to comply with the financial requirements of the PMIERs include the following:

- The GSEs may make the PMIERs more onerous in the future. The PMIERs provide that the factors that determine Minimum Required Assets will be updated periodically, or as needed if there is a significant change in macroeconomic conditions or loan performance. We do not anticipate that the regular periodic updates will occur more frequently than once every two years. The PMIERs state that the GSEs will provide notice 180 days prior to the effective date of updates to the factors; however, the GSEs may amend any portion of the PMIERs at any time.

- There may be future implications for PMIERs based upon forthcoming regulatory capital requirements for the GSEs. In 2018, the FHFA issued a proposed capital rule for the GSEs, which included a framework for determining the capital relief allowed to the GSEs for loans with private mortgage insurance. The FHFA recently indicated that it plans to re-propose a capital rule as early as the first quarter of 2020, although the timing and content of the proposal is uncertain. Further, any changes to the GSEs' capital and liquidity requirements resulting from the Treasury Housing Reform Plan could have future implications for PMIERs.

- Our future operating results may be negatively impacted by the matters discussed in the rest of these risk factors. Such matters could decrease our revenues, increase our losses or require the use of assets, thereby creating a shortfall in Available Assets.

- Should capital be needed by MGIC in the future, capital contributions from our holding company may not be available due to competing demands on holding company resources, including for repayment of debt.

Reinsurance may not always be available or affordable.

As discussed in our risk factor titled "*The mix of business we write affects our Minimum Required Assets under the PMIERs, our premium yields and the likelihood of losses occurring*," we have in place quota share and excess of loss reinsurance transactions covering a portion of our risk in force. These reinsurance transactions enable us to earn higher returns on our business than we would without them because fewer Available Assets are required to be held under PMIERs. However, reinsurance may not always be available to us or available on similar terms, the quota share reinsurance transactions subject us to counterparty credit risk and the GSEs may change the credit they allow under the PMIERs for risk ceded under our reinsurance transactions. If we are unable to obtain reinsurance for NIW, our returns may decrease absent an increase in premium rates. An increase in our premium rates may lead to a decrease in our NIW.

We are involved in legal proceedings and are subject to the risk of additional legal proceedings in the future.

Before paying an insurance claim, we review the loan and servicing files to determine the appropriateness of the claim amount. When reviewing the files, we may determine that we have the right to rescind coverage on the loan. In our SEC reports, we refer to insurance rescissions and denials of claims collectively as "rescissions" and variations of that term. In addition, our insurance policies generally provide that we can reduce or deny a claim if the servicer did not comply with its obligations under our insurance policy. We call such reduction of claims "curtailments." In recent quarters, an immaterial percentage of claims received in a quarter have been resolved by rescissions. In 2018 and 2019, curtailments reduced our average claim paid by approximately 5.8% and 5.0%, respectively.

Our loss reserving methodology incorporates our estimates of future rescissions, curtailments, and reversals of rescissions and curtailments. A variance between ultimate actual rescission, curtailment and reversal rates and our estimates, as a result of the outcome of litigation, settlements or other factors, could materially affect our losses.

When the insured disputes our right to rescind coverage or curtail claims, we generally engage in discussions in an attempt to settle the dispute. If we are unable to reach a settlement, the outcome of a dispute ultimately may be determined by legal proceedings.

Under ASC 450-20, until a loss associated with settlement discussions or legal proceedings becomes probable and can be reasonably estimated, we consider our claim payment or rescission resolved for financial reporting purposes and do not accrue an estimated loss. When we determine that a loss is probable and can be reasonably estimated, we record our best estimate of our probable loss. In those cases, until settlement negotiations or legal proceedings are concluded (including the receipt of any necessary GSE approvals), it is reasonably possible that we will record an additional loss. In the fourth quarter of 2019, the agreement for which we had recorded a probable loss of $23.5 million, received necessary GSE approvals. There was no additional loss recognized as a result of entering into the agreement, as the settlement amount was consistent with our original estimate of the probable loss. We are currently involved in discussions and/or proceedings with insureds with respect to our claims paying practices. Although it is reasonably possible that when all of these matters are resolved we will not prevail in all cases, we are unable to make a reasonable estimate or range of estimates of the potential liability. We estimate the maximum exposure associated with matters where a loss is reasonably possible to be approximately $46 million. This estimate of maximum exposure is based upon currently available information; is subject to significant judgment, numerous assumptions and known and unknown uncertainties; will include an amount for matters for which we have recorded a probable loss until such matters are concluded; will include different matters from time to time; and does not include interest or consequential or exemplary damages.

In addition to the matters described above, we are involved in other legal proceedings in the ordinary course of business. In our opinion, based on the facts known at this time, the ultimate resolution of these ordinary course legal proceedings will not have a material adverse effect on our financial position or results of operations.

We are subject to comprehensive regulation and other requirements, which we may fail to satisfy.

We are subject to comprehensive, detailed regulation, including by state insurance departments. Many of these regulations are designed for the protection of our insured policyholders and consumers, rather than for the benefit of investors. Mortgage insurers, including MGIC, have in the past been involved in litigation and regulatory actions related to alleged violations of the anti-referral fee provisions of the Real Estate Settlement Procedures Act ("RESPA"), and the notice provisions of the Fair Credit Reporting Act ("FCRA"). While these proceedings in the aggregate did not result in material liability for MGIC, there can be no assurance that the outcome of future proceedings, if any, under these laws would not have a material adverse effect on us. To the extent that we are construed to make independent credit decisions in connection with our contract underwriting activities, we also could be subject to increased regulatory requirements under the Equal Credit Opportunity Act ("ECOA"), FCRA, and other laws. Under ECOA, examination may also be made of whether a mortgage insurer's underwriting decisions have a disparate impact on persons belonging to a protected class in violation of the law.

Although their scope varies, state insurance laws generally grant broad supervisory powers to agencies or officials to examine insurance companies and enforce rules or exercise discretion affecting almost every significant aspect of the insurance business, including payment for the referral of insurance business, premium rates and discrimination in pricing, and minimum capital requirements. For more information about state capital requirements, see our risk factor titled *"State capital requirements may prevent us from continuing to write new insurance on an uninterrupted basis."* For information about regulation of data privacy, see our risk factor titled *“We could be adversely affected if personal information on consumers that we maintain is improperly disclosed; and damage to, or interruption in, our information technology systems may disrupt our operations.”* For more details about the various ways in which our subsidiaries are regulated, see “Business - Regulation” in the Business Section of our Annual Report on Form 10-K for the year ended December 31, 2019. While we believe our practices are in conformity with applicable laws and regulations, it is not possible to predict the eventual scope, duration or outcome of any such reviews or investigations nor is it possible to predict their effect on us or the mortgage insurance industry.

If our risk management programs are not effective in identifying, or adequate in controlling or mitigating, the risks we face, or if the models used in our businesses are inaccurate, it could have a material adverse impact on our business, results of operations and financial condition.

Our enterprise risk management program, described in "Business - Our Products and Services - Risk Management" in the Business Section of our Annual Report on Form10-K for the year ended December 31, 2019, may not be effective in identifying, or adequate in controlling or mitigating, the risks we face in our business.

We employ proprietary and third party models to project returns, price products (including through our risk-based pricing system), determine the techniques used to underwrite insurance, estimate reserves, generate projections used to estimate future pre-tax income and to evaluate loss recognition testing, evaluate risk, determine internal capital requirements, perform stress testing, and for other uses. These models rely on estimates and projections that are inherently uncertain and may not operate as intended. In addition, from time to time we seek to improve certain models, and the conversion process may result in material changes to assumptions, including those about returns and financial results. The models we employ are complex, which increases our risk of error in their design, implementation or use. Also, the associated input data, assumptions and calculations may not be correct, and the controls we have in place to mitigate that risk may not be effective in all cases. The risks related to our models may increase when we change assumptions and/or methodologies, or when we add or change modeling platforms. We have enhanced, and we intend to continue to enhance, our modeling capabilities. Moreover, we may use information we receive through enhancements to refine or otherwise change existing assumptions and/or methodologies.

Because we establish loss reserves only upon a loan delinquency rather than based on estimates of our ultimate losses on risk in force, losses may have a disproportionate adverse effect on our earnings in certain periods.

In accordance with accounting principles generally accepted in the United States, we establish case reserves for insurance losses and loss adjustment expenses only when notices of default on insured mortgage loans are received and for loans we estimate are in default but for which notices of default have not yet been reported to us by the servicers (this is often referred to as “IBNR”). Because our reserving method does not take account of losses that could occur from loans that are not delinquent, such losses are not reflected in our financial statements, except in the case where a premium deficiency exists. As a result, future losses on loans that are not currently delinquent may have a material impact on future results as such losses emerge.

Because loss reserve estimates are subject to uncertainties, paid claims may be substantially different than our loss reserves.

When we establish case reserves, we estimate the ultimate loss on delinquent loans by estimating the number of loans in our inventory of delinquent loans that will result in a claim payment, which is referred to as the claim rate, and further estimating the amount of the claim payment, which is referred to as claim severity. The estimated claim rate and claim severity represent our best estimates of what we will actually pay on the loans in default as of the reserve date and incorporate anticipated mitigation from rescissions and curtailments. The establishment of loss reserves is subject to inherent uncertainty and requires judgment by management. The actual amount of the claim payments may be substantially different than our loss reserve estimates. Our estimates could be affected by several factors, including a change in regional or national economic conditions, and a change in the length of time loans are delinquent before claims are received. The change in conditions may include changes in unemployment, affecting borrowers’ income and thus their ability to make mortgage payments, and changes in home prices, which may affect borrower willingness to continue to make mortgage payments when the value of the home is below the mortgage balance. Changes to our estimates could have a material impact on our future results, even in a stable economic environment. In addition, historically, losses incurred have followed a seasonal trend in which the second half of the year has weaker credit performance than the first half, with higher new default notice activity and a lower cure rate.

We rely on our management team and our business could be harmed if we are unable to retain qualified personnel or successfully develop and/or recruit their replacements.

Our success depends, in part, on the skills, working relationships and continued services of our management team and other key personnel. The unexpected departure of key personnel could adversely affect the conduct of our business. In such event, we would be required to obtain other personnel to manage and operate our business. In addition, we will be required to replace the knowledge and expertise of our aging workforce as our workers retire. In either case, there can be no assurance that we would be able to develop or recruit suitable replacements for the departing individuals; that replacements could be hired, if necessary, on terms that are favorable to us; or that we can successfully transition such replacements in a timely manner. We currently have not entered into any employment agreements with our officers or key personnel. Volatility or lack of performance in our stock price may affect our ability to retain our key personnel or attract replacements should key personnel depart. Without a properly skilled and experienced workforce, our costs, including productivity costs and costs to replace employees may increase, and this could negatively impact our earnings.

If the volume of low down payment home mortgage originations declines, the amount of insurance that we write could decline.

The factors that may affect the volume of low down payment mortgage originations include:

- restrictions on mortgage credit due to more stringent underwriting standards, liquidity issues or risk-retention and/or capital requirements affecting lenders,
- the level of home mortgage interest rates,
- the health of the domestic economy as well as conditions in regional and local economies and the level of consumer confidence,
- housing affordability,
- new and existing housing availability,
- the rate of household formation, which is influenced, in part, by population and immigration trends,
- homeownership rates,
- the rate of home price appreciation, which in times of heavy refinancing can affect whether refinanced loans have LTV ratios that require private mortgage insurance, and
- government housing policy encouraging loans to first-time homebuyers.

A decline in the volume of low down payment home mortgage originations could decrease demand for mortgage insurance and limit our NIW. For other factors that could decrease the demand for mortgage insurance, see our risk factor titled *"The amount of insurance we write could be adversely affected if lenders and investors select alternatives to private mortgage insurance."*

State capital requirements may prevent us from continuing to write new insurance on an uninterrupted basis.

The insurance laws of 16 jurisdictions, including Wisconsin, MGIC's domiciliary state, require a mortgage insurer to maintain a minimum amount of statutory capital relative to its risk in force (or a similar measure) in order for the mortgage insurer to continue to write new business. We refer to these requirements as the "State Capital Requirements." While they vary among jurisdictions, the most common State Capital Requirements allow for a maximum risk-to-capital ratio of 25 to 1. A risk-to-capital ratio will increase if (i) the percentage decrease in capital exceeds the percentage decrease in insured risk, or (ii) the percentage increase in capital is less than the percentage increase in insured risk. Wisconsin does not regulate capital by using a risk-to-capital measure but instead requires a minimum policyholder position ("MPP"). The "policyholder position" of a mortgage insurer is its net worth or surplus, contingency reserve and a portion of the reserves for unearned premiums.

At December 31, 2019, MGIC's risk-to-capital ratio was 9.7 to 1, below the maximum allowed by the jurisdictions with State Capital Requirements, and its policyholder position was $3.0 billion above the required MPP of $1.7 billion. Our risk-to-capital ratio and MPP reflect full credit for the risk ceded under our quota share reinsurance and excess of loss transactions with unaffiliated reinsurers. It is possible that under the revised State Capital Requirements discussed below, MGIC will not be allowed full credit for the risk ceded under such transactions. If MGIC is not allowed an agreed level of credit under the State Capital Requirements, MGIC may terminate the reinsurance transactions, without penalty. At this time, we expect MGIC to continue to comply with the current State Capital Requirements; however, you should read the rest of these risk factors for information about matters that could negatively affect such compliance. At December 31, 2019, the risk-to-capital ratio of our combined insurance operations was 9.6 to 1.

The NAIC has previously announced plans to revise the minimum capital and surplus requirements for mortgage insurers that are provided for in its Mortgage Guaranty Insurance Model Act. In December 2019, a working group of state regulators released an exposure draft of a revised Mortgage Guaranty Insurance Model Act and a risk-based capital framework to establish capital requirements for mortgage insurers, although no date has been established by which the NAIC must propose revisions to the capital requirements and certain items have not yet been completely addressed by the framework, including the treatment of ceded risk and minimum capital floors. Currently we believe that the PMIERs contain more restrictive capital requirements than the draft Mortgage Guaranty Insurance Model Act in most circumstances.

While MGIC currently meets, and expects to continue to meet, the State Capital Requirements of Wisconsin and all other jurisdictions, it could be prevented from writing new business in the future in all jurisdictions if it fails to meet the State Capital Requirements of Wisconsin, or it could be prevented from writing new business in a particular jurisdiction if it fails to meet the State Capital Requirements of that jurisdiction, and in each case if MGIC does not obtain a waiver of such requirements. It is possible that regulatory action by one or more jurisdictions, including those that do not have specific State Capital Requirements, may prevent MGIC from continuing to write new insurance in such jurisdictions. If we are unable to write business in a particular jurisdiction, lenders may be unwilling to procure insurance from us anywhere. In addition, a lender's assessment of the future ability of our insurance operations to meet the State Capital Requirements or the PMIERs may affect its willingness to procure insurance from us. In this regard, see our risk factor titled *"Competition or changes in our relationships with our customers could reduce our revenues, reduce our premium yields and/or increase our losses."* A possible future failure by MGIC to meet the State Capital Requirements or the PMIERs will not necessarily mean that MGIC lacks sufficient resources to pay claims on its insurance liabilities. While we believe MGIC has sufficient claims paying resources to meet its claim obligations on its insurance in force on a timely basis, you should read the rest of these risk factors for information about matters that could negatively affect MGIC's claims paying resources.

Downturns in the domestic economy or declines in the value of borrowers' homes from their value at the time their loans closed may result in more homeowners defaulting and our losses increasing, with a corresponding decrease in our returns.

Losses result from events that reduce a borrower's ability or willingness to continue to make mortgage payments, such as unemployment, health issues, family status, and whether the home of a borrower who defaults on his mortgage can be sold for an amount that will cover unpaid principal and interest and the expenses of the sale. In general, favorable economic conditions reduce the likelihood that borrowers will lack sufficient income to pay their mortgages and also favorably affect the value of homes, thereby reducing and in some cases even eliminating a loss from a mortgage default. A deterioration in economic conditions, including an increase in unemployment, generally increases the likelihood that borrowers will not have sufficient income to pay their mortgages and can also adversely affect home prices, which in turn can influence the willingness of borrowers with sufficient resources to make mortgage payments to do so when the mortgage balance exceeds the value of the home. Home prices may decline even absent a deterioration in economic conditions due to declines in demand for homes, which in turn may result from changes in buyers' perceptions of the potential for future appreciation, restrictions on and the cost of mortgage credit due to more stringent underwriting standards, higher interest rates generally, changes to the deductibility of mortgage interest for income tax purposes, decreases in the rate of household formations, or other factors. Changes in home prices and unemployment levels are inherently difficult to forecast given the uncertainty in the current market environment, including uncertainty about the effect of actions the federal government has taken and may take with respect to tax policies, mortgage finance programs and policies, and housing finance reform.

The mix of business we write affects our Minimum Required Assets under the PMIERs, our premium yields and the likelihood of losses occurring.

The Minimum Required Assets under the PMIERs are, in part, a function of the direct risk-in-force and the risk profile of the loans we insure, considering LTV ratio, credit score, vintage, Home Affordable Refinance Program ("HARP") status and delinquency status; and whether the loans were insured under lender-paid mortgage insurance policies or other policies that are not subject to automatic termination consistent with the Homeowners Protection Act requirements for borrower paid mortgage insurance. Therefore, if our direct risk-in-force increases through increases in NIW, or if our mix of business changes to include loans with higher LTV ratios or lower FICO scores, for example, or if we insure a higher percentage of loans under lender-paid mortgage insurance policies, all other things equal, we will be required to hold more Available Assets in order to maintain GSE eligibility.

The minimum capital required by the risk-based capital framework contained in the exposure draft released by the NAIC in December 2019 would be, in part, a function of certain loan and economic factors, including property location, LTV ratio and credit score; general underwriting quality in the market at the time of loan origination; the age of the loan; and the premium rate we charge. Depending upon the provisions of the capital requirements when they are released in final form and become effective, our mix of business may affect the minimum capital we are required to hold under the new framework.

The percentage of our NIW from all single-premium policies has ranged from approximately 10% in 2013 to 19% in 2017 and was 17% in 2018 and 16% in 2019. Depending upon the actual life of a single premium policy and its premium rate relative to that of a monthly premium policy, a single premium policy may generate more or less premium than a monthly premium policy over its life.

We have in place quota share reinsurance ("QSR") transactions with unaffiliated reinsurers that cover most of our insurance written from 2013 through 2019, and a portion of our insurance written prior to 2013. Although the transactions reduce our premiums, they have a lesser impact on our overall results, as losses ceded under the transactions reduce our losses incurred and the ceding commissions we receive reduce our underwriting expenses. The effect of the QSR transactions on the various components of pre-tax income will vary from period to period, depending upon the level of ceded losses.

In 2018 and 2019, MGIC entered into reinsurance agreements that provide excess-of-loss reinsurance coverage for a portion of the risk associated with certain mortgage insurance policies having an insurance coverage in force date on or after July 1, 2016 and before April 1, 2019. The transactions were entered into with special purpose insurers that issued notes linked to the reinsurance coverage ("Insurance Linked Notes" or "ILNs"). We expect that we may enter into other ILN transactions if capital market conditions remain favorable.

In addition to the effect of reinsurance on our premiums, we expect a decline in our premium yield because an increasing percentage of our insurance in force is from recent book years whose premium rates have been trending lower.

Our ability to rescind insurance coverage became more limited for insurance we wrote beginning in mid-2012. As a result of revised PMIERs requirements, we have revised our master policy and expect it to be effective for new insurance written beginning March 1, 2020. Our ability to rescind insurance coverage will become further limited for insurance we write under the new master policy, potentially resulting in higher losses than would be the case under our existing master policies.

From time to time, in response to market conditions, we change the types of loans that we insure and the requirements under which we insure them. We also change our underwriting guidelines, in part through aligning most of them with the GSEs for loans that receive and are processed in accordance with certain approval recommendations from a GSE automated underwriting system. We also make exceptions to our underwriting requirements on a loan-by-loan basis and for certain customer programs. Our underwriting requirements are available on our website at http://www.mgic.com/underwriting/index.html.

Even when home prices are stable or rising, mortgages with certain characteristics have higher probabilities of claims. As of December 31, 2019, mortgages with these characteristics in our primary risk in force included mortgages with LTV ratios greater than 95% (15.3%), loans with borrowers having FICO scores below 620 (2.0%), mortgages with borrowers having FICO scores of 620-679 (9.0%), mortgages with limited underwriting, including limited borrower documentation (1.7%), and mortgages with borrowers having DTI ratios greater than 45% (or where no ratio is available) (14.2%), each attribute as determined at the time of loan origination. An individual loan may have more than one of these attributes.

Beginning in 2017, the percentage of NIW that we have written on mortgages with LTV ratios greater than 95% and mortgages with DTI ratios greater than 45% has increased, although the percentage of NIW that we have written on mortgages with DTI ratios greater than 45% has declined in 2019 from its 2018 level. In 2018, we started considering DTI ratios when setting our premium rates, and we changed our methodology for calculating DTI ratios for pricing and eligibility purposes to exclude the impact of mortgage insurance premiums. As a result of this change, loan originators may have changed the information they provide to us. Although we have revised our operational procedures to account for this possibility, we cannot be sure that the DTI ratio we report for each loan beginning in late 2018 includes the related mortgage insurance premiums in the calculation. In addition, we expect to insure certain loans that would not have previously met our guidelines and to offer premium rates for certain loans lower than would have been offered under our previous methodology.

The widespread use of risk-based pricing systems by the private mortgage insurance industry (discussed in our risk factor titled *"Competition or changes in our relationships with our customers could reduce our revenues, reduce our premium yields and / or increase our losses"*) makes it more difficult to compare our premium rates to those offered by our competitors. We may not be aware of industry rate changes until we observe that our mix of new insurance written has changed and our mix may fluctuate more as a result.

If state or federal regulations or statutes are changed in ways that ease mortgage lending standards and/or requirements, or if lenders seek ways to replace business in times of lower mortgage originations, it is possible that more mortgage loans could be originated with higher risk characteristics than are currently being originated, such as loans with lower FICO scores and higher DTI ratios. Lenders could pressure mortgage insurers to insure such loans, which are expected to experience higher claim rates. Although we attempt to incorporate these higher expected claim rates into our underwriting and pricing models, there can be no assurance that the premiums earned and the associated investment income will be adequate to compensate for actual losses even under our current underwriting requirements.

The premiums we charge may not be adequate to compensate us for our liabilities for losses and as a result any inadequacy could materially affect our financial condition and results of operations.

We set premiums at the time a policy is issued based on our expectations regarding likely performance of the insured risks over the long term. Our premiums are subject to approval by state regulatory agencies, which can delay or limit our ability to increase our premiums. Generally, we cannot cancel mortgage insurance coverage or adjust renewal premiums during the life of a mortgage insurance policy. As a result, higher than anticipated claims generally cannot be offset by premium increases on policies in force or mitigated by our non-renewal or cancellation of insurance coverage. The premiums we charge, the investment income we earn and the amount of reinsurance we carry may not be adequate to compensate us for the risks and costs associated with the insurance coverage provided to customers. An increase in the number or size of claims, compared to what we anticipate, could adversely affect our results of operations or financial condition. Our premium rates are also based in part on the amount of capital we are required to hold against the insured risk. If the amount of capital we are required to hold increases from the amount we were required to hold when a policy was written, we cannot adjust premiums to compensate for this and our returns may be lower than we assumed.

The losses we have incurred on our 2005-2008 books of business have exceeded our premiums from those books. The incurred losses from those books, although declining, continue to generate a material portion of our total incurred losses. The ultimate amount of these losses will depend in part on general economic conditions, including unemployment, and the direction of home prices.

We are susceptible to disruptions in the servicing of mortgage loans that we insure and we rely on third-party reporting for information regarding the mortgage loans we insure.

We depend on reliable, consistent third-party servicing of the loans that we insure. Over the last several years, the mortgage loan servicing industry has experienced consolidation and an increase in the number of specialty servicers servicing delinquent loans. The resulting change in the composition of servicers could lead to disruptions in the servicing of mortgage loans covered by our insurance policies. Further changes in the servicing industry resulting in the transfer of servicing could cause a disruption in the servicing of delinquent loans which could reduce servicers' ability to undertake mitigation efforts that could help limit our losses. Future housing market conditions could lead to additional increases in delinquencies and transfers of servicing.

The information presented in this report and on our website with respect to the mortgage loans we insure is based on information reported to us by third parties, including the servicers and originators of the mortgage loans. Consequently, information presented may be subject to lapses or inaccuracies in reporting from such third parties. In many cases, we may not be aware that information reported to us by third parties is incorrect until such time as a claim is made against us under the relevant insurance policy. We do not receive monthly information from servicers for single premium policies, and may not be aware that the mortgage loans insured by such policies have been repaid. We periodically attempt to determine if coverage is still in force on such policies by asking the last servicer of record or through the periodic reconciliation of loan information with certain servicers. It may be possible that our reports continue to reflect, as active, policies on mortgage loans that have been repaid.

Changes in interest rates, house prices or mortgage insurance cancellation requirements may change the length of time that our policies remain in force.

The premium from a single premium policy is collected upfront and generally earned over the estimated life of the policy. In contrast, premiums from a monthly premium policy are received and earned each month over the life of the policy. In each year, most of our premiums earned are from insurance that has been written in prior years. As a result, the length of time insurance remains in force, which is generally measured by persistency (the percentage of our insurance remaining in force from one year prior), is a significant determinant of our revenues. Future premiums on our monthly premium policies in force represent a material portion of our claims paying resources and a low persistency rate will reduce those future premiums. In contrast, a higher than expected persistency rate will decrease the profitability from single premium policies because they will remain in force longer than was estimated when the policies were written.

Our persistency rate was 75.8% at December 31, 2019, 81.7% at December 31, 2018, and 80.1% at December

31, 2017. Since 2000, our year-end persistency ranged from a high of 84.7% at December 31, 2009 to a low of 47.1% at December 31, 2003.

Our persistency rate is primarily affected by the level of current mortgage interest rates compared to the mortgage coupon rates on our insurance in force, which affects the vulnerability of the insurance in force to refinancing. Our persistency rate is also affected by the mortgage insurance cancellation policies of mortgage investors along with the current value of the homes underlying the mortgages in the insurance in force. In 2018, the GSEs announced changes to various mortgage insurance termination requirements that are intended to further simplify the process of evaluating borrower-initiated requests for mortgage insurance termination and may reduce our persistency rate in the future.

Our holding company debt obligations materially exceed our holding company cash and investments.

At December 31, 2019, we had approximately $325 million in cash and investments at our holding company and our holding company's debt obligations were $815 million in aggregate principal amount, consisting of $425 million of 5.75% Senior Notes due in 2023 ("5.75% Notes") and $390 million of 9% Debentures due in 2063 (of which approximately $133 million was purchased, and is held, by MGIC, and is eliminated on the consolidated balance sheet). Annual debt service on the 5.75% Notes and 9% Debentures outstanding as of December 31, 2019, is approximately $60 million (of which approximately $12 million will be paid to MGIC and will be eliminated on the consolidated statement of operations).

The 5.75% Senior Notes and 9% Debentures are obligations of our holding company, MGIC Investment Corporation, and not of its subsidiaries. The payment of dividends from our insurance subsidiaries which, other than investment income and raising capital in the public markets, is the principal source of our holding company cash inflow, is restricted by insurance regulation. MGIC is the principal source of dividends, and in 2019 and 2018, it paid a total of $280 million and $220 million, respectively, in quarterly dividends to our holding company. We have received the appropriate approvals for MGIC to pay to our holding company, in the first quarter of 2020, a special dividend of $320 million and a quarterly dividend of $70 million. We expect to use most of the proceeds of the special dividend to repurchase our common stock as discussed below. We expect MGIC to pay quarterly dividends totaling at least $280 million per year, subject to approval by its Board of Directors. We ask the OCI not to object before MGIC pays dividends.

In 2019 and 2018, we repurchased approximately 8.7 million and 16.0 million shares of our common stock, respectively, using approximately $114 million and $175 million of holding company resources, respectively. As of December 31, 2019, we had $111 million of authorization remaining to repurchase our common stock through the end of 2020 under a share repurchase program approved by our Board of Directors in 2019. From January 1, 2020 through February 19, 2020, we repurchased approximately 2.5 million shares of our common stock for approximately $35 million. In addition, in January 2020, our Board of Directors approved the repurchase of up to an additional $300 million of our common stock through the end of 2021. Repurchases may be made from time to time on the open market (including through 10b5-1 plans) or through privately negotiated transactions. The repurchase program may be suspended for periods or discontinued at any time. If any additional capital contributions to our subsidiaries were required, such contributions would decrease our holding company cash and investments. As described in our Current Report on Form 8-K filed on February 11, 2016, MGIC borrowed $155 million from the Federal Home Loan Bank of Chicago. This is an obligation of MGIC and not of our holding company.

Your ownership in our company may be diluted by additional capital that we raise or if the holders of our outstanding convertible debt convert that debt into shares of our common stock.

As noted above under our risk factor titled *"We may not continue to meet the GSEs' private mortgage insurer eligibility requirements and our returns may decrease if we are required to maintain more capital in order to maintain our eligibility,"* although we are currently in compliance with the requirements of the PMIERs, there can be no assurance that we would not seek to issue non-dilutive debt capital or to raise additional equity capital to manage our capital position under the PMIERs or for other purposes. Any future issuance of equity securities may dilute your ownership interest in our company. In addition, the market price of our common stock could decline as a result of sales of a large number of shares or similar securities in the market or the perception that such sales could occur.

At December 31, 2019, we had outstanding $390 million principal amount of 9% Convertible Junior Subordinated Debentures due in 2063 ("9% Debentures") (of which approximately $133 million was purchased, and is held, by MGIC, and is eliminated on the consolidated balance sheet). The principal amount of the 9% Debentures is currently convertible, at the holder's option, at a conversion rate, which is subject to adjustment, of 74.4718 common shares per $1,000 principal amount of debentures. This represents a conversion price of approximately $13.43 per share. The payment of dividends by our holding company will result in an adjustment to the conversion rate and price, with such adjustment generally deferred until the end of the year.

We may redeem the 9% Debentures in whole or in part from time to time, at our option, at a redemption price equal to 100% of the principal amount of the 9% Debentures being redeemed, plus any accrued and unpaid interest, if the closing sale price of our common stock exceeds $17.46 for at least 20 of the 30 trading days preceding notice of the redemption.

We have the right, and may elect, to defer interest payable under the debentures in the future. If a holder elects to convert its debentures, the interest that has been deferred on the debentures being converted is also convertible into shares of our common stock. The conversion rate for such deferred interest is based on the average price that our shares traded at during a 5-day period immediately prior to the election to convert the associated debentures. We may elect to pay cash for some or all of the shares issuable upon a conversion of the debentures.

For a discussion of the dilutive effects of our convertible securities on our earnings per share, see Note 4 – “Earnings Per Share” to our consolidated financial statements. As noted above, during 2019 and 2018, we repurchased shares of our common stock and may do so in the future. In addition, we have in the past purchased, and may in the future purchase, our debt securities.

The price of our common stock may fluctuate significantly, which may make it difficult for holders to resell common stock when they want or at a price they find attractive.

The market price for our common stock may fluctuate significantly. In addition to the risk factors described herein, the following factors may have an adverse impact on the market price for our common stock: announcements by us or our competitors of acquisitions or strategic initiatives; our actual or anticipated quarterly and annual operating results; changes in expectations of future financial performance (including incurred losses on our insurance in force); changes in estimates of securities analysts or rating agencies; actual or anticipated changes in our share repurchase program or dividends; changes in general conditions in the economy, the mortgage insurance industry or the financial markets; changes in operating performance or market valuation of companies in the mortgage insurance industry; the addition or departure of key personnel; changes in tax law; and adverse press or news announcements affecting us or the industry. In addition, ownership by certain types of investors may affect the market price and trading volume of our common stock. For example, ownership in our common stock by investors such as index funds and exchange-traded funds can affect the stock’s price when those investors must purchase or sell our common stock because the investors have experienced significant cash inflows or outflows, the index to which our common stock belongs has been rebalanced, or our common stock is added to and/or removed from an index (due to changes in our market capitalization, for example).

We could be adversely affected if personal information on consumers that we maintain is improperly disclosed, and damage to, or interruption in, our information technology systems may disrupt our operations.

As part of our business, we maintain large amounts of personal information on consumers. Federal and state laws designed to promote the protection of personal information of consumers require businesses that collect or maintain consumer information to adopt information security programs, notify individuals, and in some jurisdictions, regulatory authorities, of security breaches involving personally identifiable information. Those laws may require free credit monitoring services to be provided to individuals affected by security breaches. While we believe we have appropriate information security policies and systems to prevent unauthorized disclosure, there can be no assurance that unauthorized disclosure, either through the actions of third parties or employees, will not occur. Unauthorized disclosure could adversely affect our reputation, result in a loss of business and expose us to material claims for damages.

We rely on the efficient and uninterrupted operation of complex information technology systems. All information technology systems are potentially vulnerable to damage or interruption from a variety of sources, including through the actions of third parties. Due to our reliance on information technology systems, including ours and those of our customers and third party service providers, their damage or interruption could severely disrupt our operations, which could have a material adverse effect on our business, business prospects and results of operations.

In addition, we are in the process of upgrading certain of our information systems that have been in place for a number of years and continue to deploy and enhance our risk-based pricing system. The implementation of these technological improvements, as well as their integration with customer and third party systems when applicable, is complex, expensive and time consuming. If we fail to timely and successfully implement and integrate the new technology systems, or if the systems do not operate as expected, it could have an adverse impact on our business, business prospects and results of operations.

Our success depends, in part, on our ability to manage risks in our investment portfolio.

Our investment portfolio is an important source of revenue and is our primary source of claims paying resources. Although our investment portfolio consists mostly of highly-rated fixed income investments, our investment portfolio is affected by general economic conditions and tax policy, which may adversely affect the markets for credit and interest-rate-sensitive securities, including the extent and timing of investor participation in these markets, the level and volatility of interest rates and credit spreads and, consequently, the value of our fixed income securities, and as such, we may not achieve our investment objectives. Volatility or lack of liquidity in the markets in which we hold securities has at times reduced the market value of some of our investments, and if this worsens substantially it could have a material adverse effect on our liquidity, financial condition and results of operations.

For the significant portion of our investment portfolio that is held by MGIC, to receive full capital credit under insurance regulatory requirements and under the PMIERs, we generally are limited to investing in investment grade fixed income securities whose yields reflect their lower credit risk profile. Our investment income depends upon the size of the portfolio and its reinvestment at prevailing interest rates. A prolonged period of low investment yields would have an adverse impact on our investment income as would a decrease in the size of the portfolio.

In addition, we structure our investment portfolio to satisfy our expected liabilities, including claim payments in our mortgage insurance business. If we underestimate our liabilities or improperly structure our investments to meet these liabilities, we could have unexpected losses resulting from the forced liquidation of fixed income investments before their maturity, which could adversely affect our results of operations.

Hurricanes and other natural disasters may impact our incurred losses, the amount and timing of paid claims, our inventory of notices of default and our Minimum Required Assets under PMIERs.

Natural disasters, such as hurricanes, tornadoes, earthquakes, wildfires and floods, or other events related to changing climatic conditions, could trigger an economic downturn in the affected areas, which could result in a decline in our business and an increased claim rate on policies in those areas. Natural disasters, rising sea levels and increased cost of flood insurance could lead to a decrease in home prices in the affected areas, or in areas with similar risks, which could result in an increase in claim severity on policies in those areas. If we were to attempt to limit our new insurance written in disaster-prone areas, lenders may be unwilling to procure insurance from us anywhere.

Natural disasters could also lead to increased reinsurance rates or reduced availability of reinsurance. This may cause us to retain more risk than we otherwise would retain and could negatively affect our compliance with the financial requirements of the PMIERs.

The PMIERs require us to maintain significantly more "Minimum Required Assets" for delinquent loans than for performing loans; however, the increase in Minimum Required Assets is not as great for certain delinquent loans in areas that the Federal Emergency Management Agency has declared major disaster areas. An increase in delinquency notices resulting from a natural disaster may result in an increase in "Minimum Required Assets" and a decrease in the level of our excess "Available Assets" which is discussed in our risk factor titled *"We may not continue to meet the GSEs' private mortgage insurer eligibility requirements and our returns may decrease if we are required to maintain more capital in order to maintain our eligibility."*

The Company may be adversely impacted by the transition from LIBOR as a reference rate.

In 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, announced that after 2021 it would no longer compel banks to submit rate quotations required to calculate LIBOR. As a result, it is uncertain whether LIBOR will continue to be quoted after 2021. Efforts are underway to identify and transition to a set of alternative reference rates. The set of alternative rates includes the Secured Overnight Financing Rate ("SOFR"), which the Federal Reserve Bank of New York began publishing in 2018. SOFR is calculated based on different criteria than LIBOR. Accordingly, SOFR and LIBOR may diverge. In addition, SOFR may be subject to direct influence by activities of the Federal Reserve and the Federal Reserve Bank of New York in ways that other rates may not be.

There is considerable uncertainty as to how the financial services industry will address the discontinuance of LIBOR in financial instruments. Financial instruments indexed to LIBOR could experience disparate outcomes based on their contractual terms, ability to amend those terms, market or product type, legal or regulatory jurisdiction, and other factors. Alternative reference rates that replace LIBOR may not yield the same or similar economic results over the lives of the financial instruments, which could adversely affect the value of and return on these instruments.

While it is not currently possible to determine precisely whether, or to what extent, the replacement of LIBOR would affect us, the implementation of alternative benchmark rates to LIBOR may have an adverse effect on our business, results of operations or financial condition.

Our transactions involving financial instruments that reference LIBOR, include:

- Buying and selling fixed income securities (as of December 31, 2019, approximately 6.0% of the fair value of our investment portfolio consisted of securities referencing LIBOR).

- Insuring adjustable rate mortgages ("ARMs") whose interest is referenced to LIBOR (as of December 31, 2019, approximately $1.1 billion of our risk in force was on ARMs referencing LIBOR). A change in reference rate associated with these loans may affect their principal balance, which may affect our risk-in-force and the amount of Minimum Required Assets we are required to maintain under PMIERs. A change in reference rate may also affect the amount of principal and/or accrued interest we are required to pay in the event of a claim payment.

- Entering into reinsurance agreements under which our premiums are determined, in part, by the difference between interest payable on the reinsurers' notes which reference LIBOR and earnings from a pool of securities receiving interest that may reference LIBOR (in 2019, our total premiums on such transactions was approximately $17.6 million).

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f)). Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, however, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our internal control over financial reporting using the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on such evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2019.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the consolidated financial statements and effectiveness of internal control over financial reporting as of December 31, 2019, as stated in their report which appears herein.

CHANGES IN INTERNAL CONTROL DURING THE FOURTH QUARTER

As of October 1, 2019, we implemented a new financial management system, by transitioning certain of our operations, including the general ledger, to the new system. We have modified our existing controls infrastructure, as well as added other processes and internal controls, to adapt to our new financial management system. There are no other changes in our internal control over financial reporting (as defined in Rule 13a-15(f) and Rule 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of
MGIC Investment Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of MGIC Investment Corporation and its subsidiaries (the “Company”) as of December 31, 2019 and 2018, and the related consolidated statements of operations, of comprehensive income, of shareholders' equity and of cash flows for each of the three years in the period ended December 31, 2019, including the related notes and financial statement schedules listed in the index appearing under Item 15(a)(2) (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Report On Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of loss reserves

As described in Notes 3 and 8 to the consolidated financial statements, the Company establishes reserves to recognize the estimated liability for losses related to reported defaults on insured mortgage loans. As of December 31, 2019, the Company's recorded loss reserves were $555 million. A significant portion of total loss reserves relate to primary case reserves established for the Company's primary insurance business. Case reserves are established by estimating the number of loans in the inventory of delinquent loans that will result in a claim payment, which is referred to as the claim rate, and further estimating the amount of the claim payment, which is referred to as claim severity. Our case reserve estimates are established based upon historical experience, including rescissions of policies, curtailments of claims, and loan modification activity. The conditions that affect the claim rate and claim severity include the current and future state of the domestic economy, including unemployment and the current and future strength of local housing markets; exposure on insured loans; the amount of time between default and claim filing; and curtailments and rescissions.

The principal considerations for our determination that performing procedures relating to the valuation of loss reserves is a critical audit matter are (i) there was significant judgment by management when developing their estimate, which in turn led to a high degree of auditor judgment and subjectivity in performing procedures relating to loss reserves; (ii) there was significant auditor effort and judgment in evaluating the audit evidence relating to the significant assumptions, including the claim rate and claim severity; and (iii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the valuation of loss reserves, including controls over the development of significant assumptions, including the claim rate and claim severity. These procedures also included, among others, the involvement of professionals with specialized skill and knowledge to assist in developing an independent estimate of loss reserves using historical experience and comparing this independent estimate to management's recorded loss reserves to evaluate the reasonableness of the recorded loss reserves. Developing the independent estimate involved testing the completeness, accuracy, and relevance of data provided by management and independently developing assumptions, including the claim rate and claim severity.

PricewaterhouseCoopers LLP

Milwaukee, Wisconsin
February 21, 2020

We have served as the Company's auditor since 1985.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

		December 31,	
(In thousands)	Note	**2019**	2018
Assets			
Investment portfolio:	5 / 6		
Fixed income, available-for-sale, at fair value (amortized cost, 2019 - $5,562,550; 2018 - $5,196,784)		**$ 5,737,892**	$ 5,151,987
Equity securities, at fair value (cost, 2019 - $17,188; 2018 - $3,993)		**17,328**	3,932
Other invested assets, at cost		**3,100**	3,100
Total investment portfolio		**5,758,320**	5,159,019
Cash and cash equivalents		**161,847**	151,892
Restricted cash and cash equivalents		**7,209**	3,146
Accrued investment income		**49,705**	48,001
Reinsurance recoverable on loss reserves	9	**21,641**	33,328
Reinsurance recoverable on paid losses	9	**1,521**	2,948
Premiums receivable		**55,587**	55,090
Home office and equipment, net		**50,121**	51,734
Deferred insurance policy acquisition costs		**18,531**	17,888
Deferred income taxes, net	12	**5,742**	69,184
Other assets		**99,347**	85,572
Total assets		**$ 6,229,571**	$ 5,677,802
Liabilities and shareholders' equity			
Liabilities:			
Loss reserves	8	**$ 555,334**	$ 674,019
Unearned premiums		**380,302**	409,985
Federal Home Loan Bank Advance	7	**155,000**	155,000
Senior notes	7	**420,867**	419,713
Convertible junior subordinated debentures	7	**256,872**	256,872
Other liabilities		**151,962**	180,322
Total liabilities		**1,920,337**	**2,095,911**
Contingencies	17		
Shareholders' equity:	13		
Common stock (one dollar par value, shares authorized 1,000,000; shares issued 2019 - 371,353; 2018 - 371,353; outstanding 2019 - 347,308; 2018 - 355,371)		**371,353**	371,353
Paid-in capital		**1,869,719**	1,862,536
Treasury stock (shares at cost 2019 - 24,045; 2018 - 15,982)		**(283,196)**	(175,059)
Accumulated other comprehensive income (loss), net of tax	10	**72,708**	(124,214)
Retained earnings		**2,278,650**	1,647,275
Total shareholders' equity		**4,309,234**	3,581,891
Total liabilities and shareholders' equity		**$ 6,229,571**	$ 5,677,802

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

		Years Ended December 31,		
(In thousands, except per share data)	Note	**2019**	2018	2017
Revenues:				
Premiums written:				
Direct		**$ 1,124,196**	$ 1,103,332	$ 1,121,776
Assumed		**6,446**	271	1,905
Ceded	9	**(129,334)**	(111,341)	(125,726)
Net premiums written		**1,001,308**	992,262	997,955
Decrease (increase) in unearned premiums		**29,680**	(17,100)	(63,208)
Net premiums earned	9	**1,030,988**	975,162	934,747
Investment income, net of expenses	5	**167,045**	141,331	120,871
Net realized investment gains (losses)	5	**5,306**	(1,353)	231
Other revenue		**10,638**	8,708	10,205
Total revenues		**1,213,977**	1,123,848	1,066,054
Losses and expenses:				
Losses incurred, net	8 / 9	**118,575**	36,562	53,709
Amortization of deferred policy acquisition costs		**12,001**	11,932	11,111
Other underwriting and operating expenses, net		**182,768**	178,211	159,638
Interest expense	7	**52,656**	52,993	57,035
Loss on debt extinguishment	13	**—**	—	65
Total losses and expenses		**366,000**	279,698	281,558
Income before tax		**847,977**	844,150	784,496
Provision for income taxes	12	**174,214**	174,053	428,735
Net income		**$ 673,763**	$ 670,097	$ 355,761
Earnings per share:	4			
Basic		**$ 1.91**	$ 1.83	$ 0.98
Diluted		**$ 1.85**	$ 1.78	$ 0.95
Weighted average common shares outstanding - basic	4	**352,827**	365,406	362,380
Weighted average common shares outstanding - diluted	4	**373,924**	386,078	394,766

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

		Years Ended December 31,		
(In thousands)	Note	**2019**	2018	2017
Net income		**$ 673,763**	$ 670,097	$ 355,761
Other comprehensive income (loss), net of tax:	10			
Change in unrealized investment gains and losses	5	**173,910**	(64,646)	47,547
Benefit plans adjustment	11	**23,012**	(15,767)	(5,839)
Foreign currency translation adjustment		**—**	—	31
Other comprehensive income (loss), net of tax		**196,922**	(80,413)	41,739
Comprehensive income		**$ 870,685**	$ 589,684	$ 397,500

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(In thousands)	Note	Years Ended December 31, 2019	2018	2017
Common stock				
Balance, beginning of year		**$ 371,353**	$ 370,567	$ 359,400
Issuance of common stock	13	**—**	—	10,386
Net common stock issued under share-based compensation plans		**—**	786	781
Balance, end of year		**371,353**	371,353	370,567
Paid-in capital				
Balance, beginning of year		**1,862,536**	1,850,582	1,782,337
Cumulative effect of share-based compensation accounting standard update		**—**	—	49
Issuance of common stock	13	**—**	—	60,903
Net common stock issued under share-based compensation plans		**—**	(8,917)	(7,602)
Reissuance of treasury stock, net under share-based compensation plans		**(11,715)**	—	—
Equity compensation		**18,898**	20,871	14,895
Balance, end of year		**1,869,719**	1,862,536	1,850,582
Treasury stock				
Balance, beginning of year		**(175,059)**	—	(150,359)
Purchases of common stock	13	**(114,126)**	(175,059)	—
Reissuance of treasury stock, net		**—**	—	150,359
Reissuance of treasury stock, net under share-based compensation plans		**5,989**	—	—
Balance, end of year		**(283,196)**	(175,059)	—
Accumulated other comprehensive loss				
Balance, beginning of year		**(124,214)**	(43,783)	(75,100)
Cumulative effect of financial instruments accounting standard update	3	**—**	(18)	—
Other comprehensive income (loss)	10	**196,922**	(80,413)	41,739
Cumulative effect to reclassify certain tax effects from accumulated other comprehensive loss		**—**	—	(10,422)
Balance, end of year		**72,708**	(124,214)	(43,783)
Retained earnings				
Balance, beginning of year		**1,647,275**	977,160	632,564
Cumulative effect of financial instruments accounting standard update	3	**—**	18	—
Cumulative effect of share-based compensation accounting standard update		**—**	—	153
Net income		**673,763**	670,097	355,761
Cash dividends		**(42,388)**	—	—
Reissuance of treasury stock, net	13	**—**	—	(21,740)
Cumulative effect to reclassify certain tax effects from accumulated other comprehensive loss	13	**—**	—	10,422
Balance, end of year		**2,278,650**	1,647,275	977,160
Total shareholders' equity		**$ 4,309,234**	$ 3,581,891	$ 3,154,526

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
(In thousands)	**2019**	2018	2017
Cash flows from operating activities:			
Net income	**$ 673,763**	$ 670,097	$ 355,761
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and other amortization	**48,784**	58,215	64,430
Deferred tax expense	**11,096**	186,572	355,044
Net realized investment (gains) losses	**(5,306)**	1,353	(231)
Loss on debt extinguishment	**—**	—	65
Change in certain assets and liabilities:			
Accrued investment income	**(1,704)**	(1,941)	(1,987)
Reinsurance recoverable on loss reserves	**11,687**	15,146	2,019
Reinsurance recoverable on paid losses	**1,427**	924	1,092
Premiums receivable	**(497)**	(1,045)	(1,653)
Deferred insurance policy acquisition costs	**(643)**	953	(1,082)
Profit commission receivable	**4,945**	(5,479)	(2,844)
Loss reserves	**(118,685)**	(311,616)	(453,178)
Unearned premiums	**(29,683)**	17,051	63,197
Return premium accrual	**(11,500)**	(22,900)	(25,400)
Current income taxes	**1,057**	(77,551)	51,296
Other, net	**24,791**	14,738	128
Net cash provided by operating activities	**609,532**	544,517	406,657
Cash flows from investing activities:			
Purchases of investments	**(1,394,126)**	(1,459,473)	(1,293,695)
Proceeds from sales of investments	**229,796**	370,449	246,908
Proceeds from maturity of fixed income securities	**748,165**	785,175	759,212
Net (decrease) increase in payables for securities	**(307)**	307	—
Additions to property and equipment	**(5,636)**	(14,238)	(16,066)
Net cash used in investing activities	**(422,108)**	(317,780)	(303,641)
Cash flows from financing activities:			
Proceeds from revolving credit facility	**—**	—	150,000
Repayment of revolving credit facility	**—**	—	(150,000)
Purchase or repayment of convertible senior notes	**—**	—	(145,620)
Payment of original issue discount - convertible senior notes	**—**	—	(4,504)
Repurchase of common stock	**(125,766)**	(163,419)	—
Dividends paid	**(41,914)**	—	—
Payment of debt issuance costs	**—**	—	(1,630)
Payment of withholding taxes related to share-based compensation net share settlement	**(5,726)**	(8,131)	(6,821)
Net cash used in financing activities	**(173,406)**	(171,550)	(158,575)
Net increase (decrease) in cash and cash equivalents and restricted cash and cash equivalents	**14,018**	55,187	(55,559)
Cash and cash equivalents and restricted cash and cash equivalents at beginning of year	**155,038**	99,851	155,410
Cash and cash equivalents and restricted cash and cash equivalents at end of year	**$ 169,056**	$ 155,038	$ 99,851

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 Nature of Business

MGIC Investment Corporation is a holding company which, through Mortgage Guaranty Insurance Corporation ("MGIC"), is principally engaged in the mortgage insurance business. We provide mortgage insurance to lenders throughout the United States and to government sponsored entities to protect against loss from defaults on low down payment residential mortgage loans. Primary mortgage insurance provides mortgage default protection on individual loans and covers unpaid loan principal, delinquent interest and certain expenses associated with the default and subsequent foreclosure or sale approved by us. Through certain non-insurance subsidiaries, we also provide various services for the mortgage finance industry, such as contract underwriting, analysis of loan originations and portfolios, and mortgage lead generation. MGIC Assurance Corporation ("MAC"), an insurance subsidiary of MGIC, provides insurance for certain mortgages under Fannie Mae and Freddie Mac (the "GSEs") credit risk transfer programs and is a participant in the Fannie Mae Enterprise-Paid Mortgage Insurance program.

At December 31, 2019, our direct primary insurance in force ("IIF") was $222.3 billion, which represents the principal balance in our records of all mortgage loans that we insure, and our direct primary risk in force ("RIF") was $57.2 billion, which represents the IIF multiplied by the insurance coverage percentage.

Substantially all of our insurance written since 2008 has been for loans purchased by the GSEs. The current private mortgage insurer eligibility requirements ("PMIERs") of the GSEs include financial requirements, as well as business, quality control and certain transactional approval requirements. The financial requirements of the PMIERs require a mortgage insurer's "Available Assets" (generally only the most liquid assets of an insurer) to equal or exceed its "Minimum Required Assets" (which are based on an insurer's book of insurance in force, calculated from tables of factors with several risk dimensions, reduced for credit given for risk ceded under reinsurance transactions, and subject to a floor amount). Based on our interpretation of the more restrictive application of the PMIERs, as of December 31, 2019, MGIC's Available Assets are in excess of its Minimum Required Assets; and MGIC is in compliance with the PMIERs and eligible to insure loans purchased by the GSEs.

NOTE 2 Basis of Presentation

BASIS OF PRESENTATION

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"), as codified in the Accounting Standards Codification ("ASC"). Our consolidated financial statements include the accounts of MGIC Investment Corporation and its majority-owned subsidiaries. Intercompany transactions and balances have been eliminated. In accordance with GAAP, we are required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates. We have considered subsequent events through the date of this filing.

RECLASSIFICATIONS

Certain reclassifications to 2018 and 2017 amounts have been made in the accompanying consolidated financial statements to conform to the 2019 presentation. See Note 3 - "Significant Accounting Policies" for a discussion of our adoption of accounting guidance in 2019 that resulted in other reclassifications.

NOTE 3 Significant Accounting Policies

CASH AND CASH EQUIVALENTS

We consider money market funds and investments with original maturities of three months or less to be cash equivalents.

RESTRICTED CASH AND CASH EQUIVALENTS

Restricted cash and cash equivalents consists of cash and money market funds held in trusts for the benefit of contractual counterparties under reinsurance agreements.

FAIR VALUE MEASUREMENTS

We carry certain financial instruments at fair value and disclose the fair value of all financial instruments. Our financial instruments carried at fair value are predominantly measured on a recurring basis. Financial instruments measured on a nonrecurring basis are subject to fair value adjustments only in certain circumstances (for example, when there is evidence of impairment).

The fair value of an asset or liability is defined as the price that would be received upon a sale of an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. Fair value is based on quoted market prices or inputs, where available. If prices or quotes are not available, fair value is based on valuation models or other valuation techniques that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters including yield curves, interest rates, volatilities, equity or debt prices, foreign exchange rates and credit curves. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value, as described below.

Valuation process

We use independent pricing sources to determine the fair value of a substantial majority of our financial instruments, which primarily consist of assets in our investment portfolio, but also includes amounts included in cash and cash equivalents and restricted cash and cash equivalents. A variety of inputs are used; in approximate order of priority, they are: benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, and reference data including market research publications.

Market indicators, industry and economic events are also considered. This information is evaluated using a multidimensional pricing model. This model combines all inputs to arrive at a value assigned to each security. Quality controls are performed by the independent pricing sources throughout this process, which include reviewing tolerance reports, trading information, data changes, and directional moves compared to market moves.

On a quarterly basis, we perform quality controls over values received from the pricing sources which also include reviewing tolerance reports, data changes, and directional moves compared to market moves. We have not made any adjustments to the prices obtained from the independent pricing sources.

Valuation hierarchy

A three-level valuation hierarchy has been established under GAAP for disclosure of fair value measurements. The valuation hierarchy is based on the transparency of inputs to the valuation of a financial instrument as of the measurement date. To determine the fair value of securities available-for-sale in Level 1 and Level 2 of the fair value hierarchy, independent pricing sources, as described in "*Valuation process,*" have been utilized. One price is provided per security based on observable market data. To ensure securities are appropriately classified in the fair value hierarchy, we review the pricing techniques and methodologies of the independent pricing sources and believe that their policies adequately consider market activity, either based on specific transactions for the issue valued or based on modeling of securities with similar credit quality, duration, yield and structure that were recently traded.

The three levels are defined as follows:

➔ Level 1	Quoted prices for identical instruments in active markets that we can access. Financial assets using Level 1 inputs primarily include U.S. Treasury securities, money market funds, and certain equity securities.
➔ Level 2	Quoted prices for similar instruments in active markets that we can access; quoted prices for identical or similar instruments in markets that are not active; and inputs, other than quoted prices, that are observable in the marketplace for the instrument. The observable inputs are used in valuation models to calculate the fair value of the instruments. Financial assets using Level 2 inputs primarily include obligations of U.S. government corporations and agencies, corporate bonds, mortgage-backed securities, asset-backed securities, and most municipal bonds. The independent pricing sources used for our Level 2 investments vary by type of investment. See Note 6 - "Fair Value Measurements" for further information.
➔ Level 3	Valuations derived from valuation techniques in which one or more significant inputs or value drivers are unobservable or, from par values due to restrictions on certain securities that require them to be redeemed or sold only to the security issuer at par value. The inputs used to derive the fair value of Level 3 securities reflect our own assumptions about the assumptions a market participant would use in pricing an asset or liability. Financial assets using Level 3 inputs include obligations of U.S. states and political subdivisions and certain equity securities (2017 only). Our non-financial assets that are classified as Level 3 securities consist of real estate acquired through claim settlement. The fair value of real estate acquired is the lower of our acquisition cost or a percentage of the appraised value. The percentage applied to the appraised value is based upon our historical sales experience adjusted for current trends.

INVESTMENTS

Fixed income securities. Our fixed income securities are classified as available-for-sale and are reported at fair value. The related unrealized investment gains or losses are, after considering the related tax expense or benefit, recognized as a component of accumulated other comprehensive income (loss) in shareholders' equity. Realized investment gains and losses on fixed income securities are reported in income based upon specific identification of securities sold as well as any "other than temporary" impairments ("OTTI") recognized in earnings.

Equity securities. Equity securities are reported at fair value, except for certain securities that are carried at cost. Equity securities carried at cost are reported as Other invested assets. Effective January 1, 2018, realized investment gains and losses, after considering the related tax expense or benefit, are accounted for as a function of the periodic change in fair value. For 2017, realized investment gains and losses were accounted for as a function of the difference between the amount received on the sale of an equity security and the equity security's cost basis, as well as any OTTI recognized in earnings.

Other invested assets. Other invested assets are carried at cost. These assets represent our investment in Federal Home Loan Bank of Chicago ("FHLB") stock, which due to restrictions, is required to be redeemed or sold only to the security issuer at par value.

Unrealized losses and OTTI

Each quarter we perform reviews of our investments in order to determine whether declines in fair value below amortized cost were considered other-than-temporary. In evaluating whether a decline in fair value is other-than-temporary, we consider several factors including, but not limited to:

- our intent to sell the security or whether it is more likely than not that we will be required to sell the security before recovery of its amortized cost basis;
- the present value of the discounted cash flows we expect to collect compared to the amortized cost basis of the security;
- extent and duration of the decline;
- failure of the issuer to make scheduled interest or principal payments;
- change in rating below investment grade; and
- adverse conditions specifically related to the security, an industry, or a geographic area.

Based on our evaluation, we will record an OTTI adjustment on a security if we intend to sell the impaired security, if it is more likely than not that we will be required to sell the impaired security prior to recovery of its amortized cost basis, or if the present value of the discounted cash flows we expect to collect is less than the amortized cost basis of the security. If the fair value of a security is below its amortized cost at the time of our intent to sell, the security is classified as other-than-temporarily impaired and the full amount of the impairment is recognized as a loss in the statement of operations. Otherwise, when a security is considered to be other-than-temporarily impaired, the losses are separated into the portion of the loss that represents the credit loss and the portion that is due to other factors. The credit loss portion is recognized as a loss in the statement of operations, while the loss due to other factors is recognized in accumulated other comprehensive loss, net of taxes. A credit loss is determined to exist if the present value of the discounted cash flows, using the security's original yield, expected to be collected from the security is less than the cost basis of the security.

HOME OFFICE AND EQUIPMENT

Home office and equipment is carried at cost net of depreciation. For financial reporting purposes, depreciation is determined on a straight-line basis for the home office and equipment over estimated lives ranging from 3 to 45 years. For income tax purposes, we use accelerated depreciation methods.

Home office and equipment is shown net of accumulated depreciation of $43.0 million, $38.1 million and $33.9 million as of December 31, 2019, 2018 and 2017, respectively. Depreciation expense for the years ended December 31, 2019, 2018 and 2017 was $6.5 million, $6.0 million and $5.4 million, respectively.

DEFERRED INSURANCE POLICY ACQUISITION COSTS

Costs directly associated with the successful acquisition of mortgage insurance business, consisting of employee compensation and other policy issuance and underwriting expenses, are initially deferred and reported as deferred insurance policy acquisition costs ("DAC"). The deferred costs are net of any ceding commissions received associated with our reinsurance agreements. For each underwriting year of business, these costs are amortized to income in proportion to estimated gross profits over the estimated life of the policies. We utilize anticipated investment income in our calculation. This includes accruing interest on the unamortized balance of DAC. The estimates for each underwriting year are reviewed quarterly and updated when necessary to reflect actual experience and any changes to key variables such as persistency or loss development.

LOSS RESERVES

Case reserves and loss adjustment expenses ("LAE") reserves are established when we receive notices of delinquency on insured mortgage loans. We consider a loan delinquent when it is two or more payments past due. Even though the accounting standard, ASC 944, regarding accounting and reporting by insurance entities specifically excludes mortgage insurance from its guidance relating to loss reserves, we establish loss reserves using the general principles contained in the insurance standard. However, consistent with industry standards for mortgage insurers, we do not establish case reserves for future claims on insured loans which are not currently delinquent. Case reserves are established by estimating the number of loans in our inventory of delinquent loans that will result in a claim payment, which is referred to as the claim rate, and further estimating the amount of the claim payment, which is referred to as claim severity. Our case reserve estimates are established based upon historical experience, including rescissions of policies, curtailments of claims, and loan modification activity. Adjustments to reserve estimates are reflected in the financial statements in the years in which the adjustments are made. The liability for reinsurance assumed is based on information provided by the ceding companies.

Incurred but not reported ("IBNR") reserves are established for estimated losses from delinquencies occurring prior to the close of an accounting period on notices of delinquency not yet reported to us. IBNR reserves are also established using estimated claim rates and claim severities.

LAE reserves are established for the estimated costs of settling claims, including legal and other expenses and general expenses of administering the claims settlement process.

Loss reserves are ceded to reinsurers under our reinsurance agreements. (See Note 8 – “Loss Reserves” and Note 9 – “Reinsurance.”)

PREMIUM DEFICIENCY RESERVE

After our loss reserves are initially established, we perform premium deficiency tests using our best estimate assumptions as of the testing date. Premium deficiency reserves are established, if necessary, when the present value of expected future losses and expenses exceeds the present value of expected future premium and already established reserves. Products are grouped for premium deficiency testing purposes based on similarities in the way the products are acquired, serviced and measured for profitability.

REVENUE RECOGNITION

We write policies which are guaranteed renewable contracts at the insured's option on a monthly, single, or annual premium basis. We have no ability to re-underwrite or reprice these contracts. Premiums written on monthly premium policies are earned as coverage is provided. Premiums written on single premium policies and annual premium policies are initially deferred as unearned premium reserve and earned over the estimated policy life. Premiums written on policies covering more than one year are amortized over the estimated policy life based on historical experience, which includes the anticipated incurred loss pattern. Premiums written on annual premium policies are earned on a monthly pro rata basis. When a policy is cancelled for a reason other than rescission or claim payment, all premium that is non-refundable is immediately earned. Any refundable premium is returned to the servicer or borrower. When a policy is cancelled due to rescission, all previously collected premium is returned to the servicer and when a policy is cancelled because a claim is paid, premium collected since the date of delinquency is returned. The liability associated with our estimate of premium to be returned is accrued for separately and included in "Other liabilities" on our consolidated balance sheets. Changes in this liability, and the actual return of premiums for all periods, affects premiums written and earned.

Fee income of our non-insurance subsidiaries is earned and recognized as the services are provided and the customer is obligated to pay. Fee income consists primarily of contract underwriting and related fee-based services provided to lenders and is included in “Other revenue” on the consolidated statements of operations.

INCOME TAXES

Deferred income taxes are provided under the liability method, which recognizes the future tax effects of temporary differences between amounts reported in the consolidated financial statements and the tax bases of these items. The estimated tax effects are computed at the enacted federal statutory income tax rate. Changes in tax laws, rates, regulations, and policies or the final determination of tax audits or examinations, could materially affect our estimates and can be significant to our operating results. We evaluate the realizability of the deferred tax assets based on the weight of all available positive and negative evidence. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that all or some portion of the deferred tax assets will not be realized.

The recognition of a tax position is determined using a two-step approach. The first step applies a more-likely-than-not threshold for recognition and derecognition. The second step measures the tax position as the greatest amount of benefit that is cumulatively greater than 50% likely to be realized. When evaluating a tax position for recognition and measurement, we presume that the tax position will be examined by the relevant taxing authority that has full knowledge of all relevant information. We recognize interest accrued and penalties related to unrecognized tax benefits in our provision for income taxes.

Federal tax law permits mortgage guaranty insurance companies to deduct from taxable income, subject to certain limitations, the amounts added to contingency loss reserves that are recorded for regulatory purposes. The amounts we deduct must generally be included in taxable income in the tenth subsequent year. The deduction is allowed only to the extent that we purchase and hold U.S. government non-interest-bearing tax and loss bonds in an amount equal to the tax benefit attributable to the deduction. We account for these purchases as a payment of current federal income tax. (See "Note 12 - Income Taxes.")

BENEFIT PLANS

We have a non-contributory defined benefit pension plan covering substantially all domestic employees, as well as a supplemental executive retirement plan. Retirement benefits are based on compensation and years of service. We recognize these retirement benefit costs over the period during which employees render the service that qualifies them for benefits. Our policy is to fund pension cost as required under the Employee Retirement Income Security Act of 1974.

We offer both medical and dental benefits for retired domestic employees, their eligible spouses and dependents until the retiree reaches the age of 65. Under the plan retirees pay a premium for these benefits. We accrue the estimated costs of retiree medical and dental benefits over the period during which employees render the service that qualifies them for benefits. (See Note 11 – "Benefit Plans.")

REINSURANCE

Loss reserves and unearned premiums are reported before taking credit for amounts ceded under reinsurance agreements. Ceded loss reserves are reflected as "Reinsurance recoverable on loss reserves." Ceded unearned and prepaid reinsurance premiums are included in "Other assets." Amounts due from reinsurers on paid claims are reflected as "Reinsurance recoverable on paid losses." Ceded premiums payable are included in "Other liabilities." Any profit commissions are included with "Premiums written – Ceded" and any ceding commissions are included with "Other underwriting and operating expenses, net." We remain liable for all insurance ceded. (See Note 9 – "Reinsurance.")

SHARE-BASED COMPENSATION

We have certain share-based compensation plans. Under the fair value method, compensation cost is measured at the grant date based on the fair value of the award and is recognized over the service period which generally corresponds to the vesting period. Awards under our plans generally vest over periods ranging from one to three years . (See Note 15 – "Share-based Compensation Plans.")

EARNINGS PER SHARE

Basic earnings per share ("EPS") is calculated by dividing net income by the weighted average number of shares of common stock outstanding. The computation of basic EPS includes as "participating securities" an immaterial number of unvested share-based compensation awards that contain non-forfeitable rights to dividends or dividend equivalents, whether paid or unpaid, under the "two-class" method. Our participating securities are composed of vested restricted stock and restricted stock units ("RSUs") with non-forfeitable rights to dividends. Diluted EPS includes the components of basic EPS and also gives effect to dilutive common stock equivalents. We calculate diluted EPS using the treasury stock method and if-converted method. Under the treasury stock method, diluted EPS reflects the potential dilution that could occur if our unvested restricted stock units result in the issuance of common stock. Under the if-converted method, diluted EPS reflects the potential dilution that could occur if our convertible debt instruments result in the issuance of common stock. The determination of potentially issuable shares does not consider the satisfaction of the conversion requirements and the shares are included in the determination of diluted EPS as of the beginning of the period, if dilutive. In addition to our 9% Debentures, we had other convertible notes in 2017 that could have resulted in contingently issuable shares and we considered each potential issuance of shares separately to reflect the maximum potential dilution for the period the debt issuances were outstanding. For purposes of calculating basic and diluted EPS, vested restricted stock and RSUs are considered outstanding.

RELATED PARTY TRANSACTIONS

There were no related party transactions during 2019, 2018, or 2017.

RECENT ACCOUNTING AND REPORTING DEVELOPMENTS

Accounting standards effective in 2019, or early adopted, and relevant to our financial statements

Accounting Standard Update ("ASU") 2016-02 - Leases
In February 2016, the FASB amended the previous leasing standard and created ASC 842, Leases. ASC 842 requires a lessee to recognize a right-of-use asset and lease liability for substantially all leases. Effective for the quarter ended March 31, 2019, we adopted the updated guidance for leases and also elected to apply all practical expedients applicable to us in the updated guidance for transition of leases in effect at adoption. The adoption of the updated guidance resulted in the recognition of an immaterial right-of-use asset as part of other assets and a lease liability as part of other liabilities in the consolidated balance sheet.

➔ *Adoption impact: The adoption of the updated guidance did not have a material effect on our consolidated results of operations or liquidity.*

PROSPECTIVE ACCOUNTING STANDARDS

Table 3.1 shows the relevant new amendments to accounting standards, which are not yet effective or adopted.

Standard / Interpretation

Table 3.1

Amended Standards		Effective date
ASC 326	Financial Instruments - Credit Losses	
	• *ASU 2016-13 - Measurement of Credit Losses on Financial Instruments*	January 1, 2020
ASC 820	Fair Value Measurement	
	• *ASU 2018-13 - Changes to the Disclosure Requirements for Fair Value Measurements*	January 1, 2020
ASC 715	Compensation - Retirement Benefits	
	• *ASU 2018-14 - Changes to the Disclosure Requirements for Defined Benefit Plans*	January 1, 2021
ASC 740	Income Taxes	
	• *ASU 2019-12 - Simplifying the Accounting for Income Taxes*	January 1, 2021

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued updated guidance that requires immediate recognition of estimated credit losses expected to occur over the remaining life of many financial instruments. We have concluded that our mortgage insurance policies are outside the scope of this ASU, however, the provisions of this guidance do apply to our reinsurance transactions, which are highly rated, as discussed in Note 9 – "Reinsurance" to our consolidated financial statements. Entities are required to incorporate their forecast of future economic conditions into their loss estimate unless such forecast is not reasonable and supportable, in which case the entity will revert to historical loss experience. The allowance for current expected credit losses ("CECL") generally reduces the amortized cost basis of the financial instrument to the amount an entity expects to collect, however, credit losses relating to available-for-sale fixed maturity securities are to be recorded through an allowance for credit losses, with the amount of the allowance limited to the amount by which fair value is less than amortized cost. In addition, the length of time a security has been in an unrealized loss position will no longer impact the determination of whether a credit loss exists. The updated guidance is not prescriptive about certain aspects of estimating expected credit losses, including the specific methodology to use, and therefore will require significant judgment in application. The updated guidance is effective for annual periods beginning after December 15, 2019, including interim periods within those annual periods. In May 2019, the FASB amended this guidance to provide entities with an option to irrevocably elect the fair value option for eligible instruments in order to provide targeted transition relief that is intended to increase comparability of financial statement information for some entities that otherwise would have measured similar financial instruments using different measurement methodologies. We have evaluated the impacts the adoption of this guidance will have on our consolidated financial statements, and determined it will not have a material impact.

Changes to the Disclosure Requirements for Fair Value Measurement

In August 2018, the FASB issued updated guidance that changes the disclosure requirements for fair value measurements. The updated guidance removed the requirement to disclose the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy; the policy for timing of transfers between levels; and the valuation processes for Level 3 fair value measurements. The updated guidance clarifies that the measurement uncertainty disclosure is to communicate information about the uncertainty in measurements as of the reporting date. Further, the updated guidance requires disclosure of changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period; and the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. The updated guidance is effective for annual periods beginning after December 15, 2019, including interim periods within those annual periods. We have evaluated the impacts the adoption of this guidance will have on our consolidated financial statements, and determined it will not have a material impact.

Changes to the Disclosure Requirements for Defined Benefit Plans

In August 2018, the FASB issued amendments to modify the disclosure requirements for defined benefit plans. The updated guidance removed the requirements to identify amounts that are expected to be reclassified out of accumulated other comprehensive income and recognized as components of net periodic benefit cost in the coming year and the effects of a one-percentage-point change in assumed health care cost trend rates on service and interest cost and on the postretirement benefit obligation. The updated guidance added disclosure requirements for the weighted-average interest crediting rates for cash balance plans and other plans with interest crediting rates and explanations for significant gains and losses related to changes in the benefit obligation for the period. The updated guidance is effective for annual periods beginning after December 15, 2020. Early adoption is permitted. An entity should apply the amendments on a retrospective basis to all periods presented. We are currently evaluating the impacts the adoption of this guidance will have on our consolidated financial statement disclosures, but do not expect it to have a material impact.

Simplifying the Accounting for Income Taxes

In December 2019, the FASB issued guidance which simplifies Accounting for Income Taxes (Topic 740). The ASU intends to reduce complexity through clarification and amendments of existing guidance. The updated guidance is effective for fiscal years beginning after December 15, 2020. Early adoption is permitted in any interim periods for which financial statements have not been issued. We are currently evaluating the impacts the adoption of this guidance will have on our consolidated financial statements, but do not expect it to have a material impact.

NOTE 4 Earnings Per Share

Table 4.1 reconciles basic and diluted EPS amounts:

Earnings per share

Table 4.1	Years Ended December 31,		
(In thousands, except per share data)	**2019**	2018	2017
Basic earnings per share:			
Net income	**$ 673,763**	$ 670,097	$ 355,761
Weighted average common shares outstanding - basic	**352,827**	365,406	362,380
Basic earnings per share	**$ 1.91**	$ 1.83	$ 0.98
Diluted earnings per share:			
Net income	**$ 673,763**	$ 670,097	$ 355,761
Interest expense, net of tax [(1)]:			
2% Notes	**—**	—	907
5% Notes	**—**	—	1,709
9% Debentures	**18,264**	18,264	15,027
Diluted income available to common shareholders	**$ 692,027**	$ 688,361	$ 373,404
Weighted-average shares - basic	**352,827**	365,406	362,380
Effect of dilutive securities:			
Unvested restricted stock units	**2,069**	1,644	1,493
2% Notes	**—**	—	8,317
5% Notes	**—**	—	3,548
9% Debentures	**19,028**	19,028	19,028
Weighted average common shares outstanding - diluted	**373,924**	386,078	394,766
Diluted income per share	**$ 1.85**	$ 1.78	$ 0.95

(1) Interest expense for the years ended December 31, 2019, 2018 and 2017 has been tax effected at a rate of 21%, 21%, and 35%, respectively.

For the years ended December 31, 2019, 2018, and 2017, all of our then outstanding Convertible Senior Notes and Convertible Junior Subordinated Debentures are reflected in diluted earnings per share using the "if-converted" method. Under this method, if dilutive, the common stock related to the outstanding Convertible Senior Notes and/or Convertible Junior Subordinated Debentures is assumed issued as of the beginning of the reporting period and the related interest expense, net of tax, is added back to earnings in calculating diluted EPS.

NOTE 5 Investments

FIXED INCOME SECURITIES

The amortized cost, gross unrealized gains and losses and fair value of our fixed income securities as of December 31, 2019 and 2018 are shown below:

Details of fixed income investment securities by category as of December 31, 2019

Table 5.1a

(In thousands)	**Amortized Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses (1)**	**Fair Value**
U.S. Treasury securities and obligations of U.S. government corporations and agencies	**$ 195,176**	**$ 1,237**	**$ (210)**	**$ 196,203**
Obligations of U.S. states and political subdivisions	**1,555,394**	**99,328**	**(857)**	**1,653,865**
Corporate debt securities	**2,711,910**	**76,220**	**(3,008)**	**2,785,122**
ABS	**227,376**	**2,466**	**(178)**	**229,664**
RMBS	**271,384**	**429**	**(3,227)**	**268,586**
CMBS	**274,234**	**5,531**	**(779)**	**278,986**
CLOs	**327,076**	**33**	**(1,643)**	**325,466**
Total fixed income securities	**$ 5,562,550**	**$ 185,244**	**$ (9,902)**	**$ 5,737,892**

Details of fixed income investment securities by category as of December 31, 2018

Table 5.1b

(In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses (1)	Fair Value
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 167,655	$ 597	$ (1,076)	$ 167,176
Obligations of U.S. states and political subdivisions	1,701,826	29,259	(10,985)	1,720,100
Corporate debt securities	2,439,173	2,103	(40,514)	2,400,762
ABS	111,953	226	(146)	112,033
RMBS	189,238	32	(10,309)	178,961
CMBS	276,352	888	(9,580)	267,660
CLOs	310,587	2	(5,294)	305,295
Total fixed income securities	$ 5,196,784	$ 33,107	$ (77,904)	$ 5,151,987

(1) There were no OTTI losses recorded in other comprehensive (loss) income as of December 31, 2019 and 2018.

The increase in gross unrealized gains and the decrease in gross unrealized losses in our fixed income securities from December 31, 2018 to December 31, 2019 were primarily caused by declines in interest rates during that period.

We had $13.9 million and $13.5 million of investments at fair value on deposit with various states as of December 31, 2019 and 2018, respectively, due to regulatory requirements of those states' insurance departments. In connection with our insurance and reinsurance activities, we are required to maintain assets in trusts for the benefit of contractual counterparties. The fair value of the investments on deposit in these trusts was $89.9 million and $26.3 million at December 31, 2019 and 2018, respectively.

Table 5.2 compares the amortized cost and fair values of fixed income securities, by contractual maturity, as of December 31, 2019. Actual maturities may differ from contractual maturities because certain borrowers have the right to call or prepay certain obligations with or without call or prepayment penalties. Because most mortgage and asset-backed securities provide for periodic payments throughout their lives, they are listed separately in the table.

Fixed income securities maturity schedule

Table 5.2

	December 31, 2019	
(In thousands)	**Amortized Cost**	**Fair Value**
Due in one year or less	$ 425,739	$ 427,616
Due after one year through five years	1,911,433	1,952,278
Due after five years through ten years	1,031,056	1,088,012
Due after ten years	1,094,252	1,167,284
	4,462,480	4,635,190
ABS	227,376	229,664
RMBS	271,384	268,586
CMBS	274,234	278,986
CLOs	327,076	325,466
Total as of December 31, 2019	$ 5,562,550	$ 5,737,892

Proceeds from the sale of fixed income securities classified as available-for-sale were $228.1 million, $365.6 million, and $246.9 million during the years ended December 31, 2019, 2018, and 2017, respectively. Gross gains of $7.1 million, $0.7 million, and $1.6 million and gross losses of $3.5 million, $3.8 million and $1.4 million were realized on those sales during the years ended December 31, 2019, 2018, and 2017, respectively.

For the years ended December 31, 2019 and December 31, 2018, we recorded $0.1 million and $1.8 million of OTTI losses in earnings, respectively. For the year ended December 31, 2017, there were no OTTI losses in earnings.

EQUITY SECURITIES

The cost and fair value of investments in equity securities as of December 31, 2019 and December 31, 2018 are shown in tables 5.3a and 5.3b below. Under updated guidance regarding the *"Recognition and Measurement of Financial Assets and Financial Liabilities"* which became effective on January 1, 2018, the amount of our FHLB stock investment has been reclassified and presented in *"Other invested assets"* on our consolidated balance sheet.

Details of equity investment securities as of December 31, 2019

Table 5.3a

(In thousands)	Cost	Gross gains	Gross losses	Fair Value
Equity securities	17,188	154	(14)	17,328

Details of equity investment securities as of December 31, 2018

Table 5.3b

(In thousands)	Cost	Gross gains	Gross losses	Fair Value
Equity securities	3,993	11	(72)	3,932

Proceeds from the sale of equity securities were $1.7 million and $4.9 million during the years ended December 31, 2019 and 2018, respectively. Gross gains of $1.6 million and $3.7 million were realized on those sales during the year ended December 31, 2019 and 2018, respectively. There were no sales of equity securities in 2017. For the year ended December 31, 2019 and December 31, 2018, we recognized $201 thousand and $84 thousand of net losses on equity securities still held as of December 31, 2019 and December 31, 2018, respectively, which are reported in Net realized investment (losses) gains on our consolidated statements of operations.

OTHER INVESTED ASSETS

Other invested assets include an investment in Federal Home Loan Bank ("FHLB") stock that is carried at cost, which due to its nature approximates fair value. Ownership of FHLB stock provides access to a secured lending facility, and our current FHLB Advance amount is secured by eligible collateral whose fair value is maintained at a minimum of 102% of the outstanding principal balance of the FHLB Advance. As of December 31, 2019, that collateral consisted of fixed income securities included in our total investment portfolio, and cash and cash equivalents, with a total fair value of $165.7 million.

UNREALIZED INVESTMENT LOSSES

Tables 5.4a and 5.4b below summarize, for all available-for-sale investments in an unrealized loss position as of December 31, 2019 and 2018, the aggregate fair value and gross unrealized losses by the length of time those securities have been continuously in an unrealized loss position. Gross unrealized losses on our available-for-sale investments amounted to $10 million and $78 million as of December 31, 2019 and 2018, respectively. The fair value amounts reported in tables 5.4a and 5.4b below are estimated using the process described in Note 6 - "Fair Value Measurements" to these consolidated financial statements.

Unrealized loss aging for securities by type and length of time as of December 31, 2019

Table 5.4a

	Less Than 12 Months		12 Months or Greater		**Total**	
(In thousands)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	**Fair Value**	**Unrealized Losses**
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 57,301	$ (200)	$ 5,806	$ (10)	**$ 63,107**	**$ (210)**
Obligations of U.S. states and political subdivisions	74,859	(847)	6,957	(10)	**81,816**	**(857)**
Corporate debt securities	221,357	(2,847)	43,505	(161)	**264,862**	**(3,008)**
ABS	21,542	(118)	3,851	(60)	**25,393**	**(178)**
RMBS	105,443	(461)	110,452	(2,766)	**215,895**	**(3,227)**
CMBS	62,388	(728)	11,852	(51)	**74,240**	**(779)**
CLOs	81,444	(225)	196,988	(1,418)	**278,432**	**(1,643)**
Total	$ 624,334	$ (5,426)	$ 379,411	$ (4,476)	**$ 1,003,745**	**$ (9,902)**

Unrealized loss aging for securities by type and length of time as of December 31, 2018

Table 5.4b

	Less Than 12 Months		12 Months or Greater		Total	
(In thousands)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 23,710	$ (15)	$ 69,146	$ (1,061)	$ 92,856	$ (1,076)
Obligations of U.S. states and political subdivisions	316,655	(3,875)	358,086	(7,110)	674,741	(10,985)
Corporate debt securities	1,272,279	(18,130)	785,627	(22,384)	2,057,906	(40,514)
ABS	51,324	(146)	—	—	51,324	(146)
RMBS	24	—	178,573	(10,309)	178,597	(10,309)
CMBS	65,704	(1,060)	163,272	(8,520)	228,976	(9,580)
CLOs	296,497	(5,294)	—	—	296,497	(5,294)
Total	$ 2,026,193	$ (28,520)	$ 1,554,704	$ (49,384)	**$ 3,580,897**	**$ (77,904)**

For those securities in an unrealized loss position, the length of time the securities were in such a position, is measured by their month-end fair values. The unrealized losses in all categories of our investments as of December 31, 2019 and 2018 were primarily caused by changes in interest rates between the time of purchase and the respective year end. There were 217 and 721 securities in an unrealized loss position as of December 31, 2019 and 2018, respectively. As of December 31, 2019, the fair value as a percent of amortized cost of the securities in an unrealized loss position was 99% and approximately 28% of the securities in an unrealized loss position were backed by the U.S. Government.

The source of net investment income is shown in table 5.5 below.

Net investment income

Table 5.5

(In thousands)	**2019**	2018	2017
Fixed income securities	**$ 165,523**	$ 140,539	$ 122,105
Equity securities	**406**	228	206
Cash equivalents	**4,444**	3,423	1,447
Other	**974**	816	620
Investment income	**171,347**	145,006	124,378
Investment expenses	**(4,302)**	(3,675)	(3,507)
Net investment income	**$ 167,045**	$ 141,331	$ 120,871

The change in unrealized gains (losses) of investments is shown in table 5.6 below.

Change in unrealized gains (losses)

Table 5.6

(In thousands)	**2019**	2018	2017
Fixed income securities	**$ 220,139**	$ (81,834)	$ 69,026
Equity securities	**—**	—	39
Other	**—**	—	(13)
Change in unrealized gains/losses	**$ 220,139**	$ (81,834)	$ 69,052

NOTE 6 Fair Value Measurements

The following table describes the valuation methodologies generally used by the independent pricing sources, or by us, to measure financial instruments at fair value, including the general classification of such financial instruments pursuant to the valuation hierarchy.

Level 1 measurements

- Fixed income securities: Consist of primarily U.S. Treasury securities with valuations derived from quoted prices for identical instruments in active markets that we can access.
- Equity securities: Consist of actively traded, exchange-listed equity securities with valuations derived from quoted prices for identical assets in active markets that we can access.
- Other: Consists of money market funds with valuations derived from quoted prices for identical assets in active markets that we can access.

Level 2 measurements

- Fixed income securities:

  Corporate Debt & U.S. Government and Agency Bonds are valued by surveying the dealer community, obtaining relevant trade data, benchmark quotes and spreads and incorporating this information into the valuation process.

  Obligations of U.S. States & Political Subdivisions are valued by tracking, capturing, and analyzing quotes for active issues and trades reported via the Municipal Securities Rulemaking Board records. Daily briefings and reviews of current economic conditions, trading levels, spread relationships, and the slope of the yield curve provide further data for evaluation.

  Residential Mortgage-Backed Securities ("RMBS") are valued by monitoring interest rate movements, and other pertinent data daily. Incoming market data is enriched to derive spread, yield and/or price data as appropriate, enabling known data points to be extrapolated for valuation application across a range of related securities.

  Commercial Mortgage-Backed Securities ("CMBS") are valued using techniques that reflect market participants' assumptions and maximize the use of relevant observable inputs including quoted prices for similar assets, benchmark yield curves and market corroborated inputs. Evaluation uses regular reviews of the inputs for securities covered, including executed trades, broker quotes, credit information, collateral attributes and/or cash flow waterfall as applicable.

Asset-Backed Securities ("ABS") are valued using spreads and other information solicited from market buy-and-sell-side sources, including primary and secondary dealers, portfolio managers, and research analysts. Cash flows are generated for each tranche, benchmark yields are determined, and deal collateral performance and tranche level attributes including trade activity, bids, and offers are applied, resulting in tranche specific prices.

Collateralized loan obligations ("CLO") Collateralized Loan Obligations are valued by evaluating manager rating, seniority in the capital structure, assumptions about prepayment, default and recovery and their impact on cash flow generation. Loan level net asset values are determined and aggregated for tranches and as a final step prices are checked against available recent trade activity.

Level 3 measurements

- Real estate acquired are valued at the lower of our acquisition cost or a percentage of the appraised value. The percentage applied to the appraised value is based upon our historical sales experience adjusted for current trends.

RECURRING FAIR VALUE MEASUREMENTS

Assets carried at fair value included those listed, by hierarchy level, in the following tables as of December 31, 2019 and 2018:

Assets carried at fair value by hierarchy level as of December 31, 2019

Table 6.1a

(In thousands)	**Fair Value**	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ **196,203**	$ 34,240	$ 161,963	$ —
Obligations of U.S. states and political subdivisions	**1,653,865**	—	1,653,865	—
Corporate debt securities	**2,785,122**	—	2,785,122	—
ABS	**229,664**	—	229,664	—
RMBS	**268,586**	—	268,586	—
CMBS	**278,986**	—	278,986	—
CLOs	**325,466**	—	325,466	—
Total fixed income securities	**5,737,892**	34,240	5,703,652	—
Equity securities	**17,328**	17,328	—	—
Other [(1)]	**164,693**	164,693	—	—
Real estate acquired [(2)]	**7,252**	—	—	7,252
Total	$ **5,927,165**	$ 216,261	$ 5,703,652	$ 7,252

Assets carried at fair value by hierarchy level as of December 31, 2018

Table 6.1b

(In thousands)	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 167,176	$ 42,264	$ 124,912	$ —
Obligations of U.S. states and political subdivisions	1,720,100	—	1,720,087	13
Corporate debt securities	2,400,762	—	2,400,762	—
ABS	112,033	—	112,033	—
RMBS	178,961	—	178,961	—
CMBS	267,660	—	267,660	—
CLOs	305,295	—	305,295	—
Total fixed income securities	5,151,987	42,264	5,109,710	13
Equity securities [3]	3,932	3,932	—	—
Other [1]	96,403	96,403	—	—
Real estate acquired [2]	14,535	—	—	14,535
Total	$ 5,266,857	$ 142,599	$ 5,109,710	$ 14,548

(1) Consists of money market funds included in "Cash and Cash Equivalents" and "Restricted Cash and Cash Equivalents" on the consolidated balance sheet.

(2) Real estate acquired through claim settlement, which is held for sale, is reported in "Other assets" on the consolidated balance sheets.

(3) See *"Reconciliation of Level 3 assets"* below for information regarding a change in presentation of amounts previously included in Level 3 Equity securities.

Certain financial instruments, including insurance contracts, are excluded from fair value disclosure requirements. The carrying values of cash and cash equivalents (Level 1) and accrued investment income (Level 2) approximated their fair values.

RECONCILIATIONS OF LEVEL 3 ASSETS

For assets and liabilities measured at fair value using significant unobservable inputs (Level 3), a reconciliation of the beginning and ending balances for the years ended December 31, 2019, 2018, and 2017 is shown in tables 6.2a, 6.2b and 6.2c below. Under updated guidance regarding the "*Recognition and Measurement of Financial Assets and Financial Liabilities*" which became effective on January 1, 2018, our investment in FHLB stock is no longer presented with equity securities. Prior to the updated guidance, the FHLB stock was included in our Level 3 equity securities. As shown in table 6.2b below, for the year ended December 31, 2018, we have transferred the FHLB stock out of Level 3 assets, and it is carried at cost, which approximates fair value, on our consolidated balance sheet in *"Other invested assets"* as of December 31, 2018. There were no transfers into or out of Level 3 for the years ending December 31, 2019 and 2017. There were no losses included in earnings for the years ended December 31, 2019, 2018, and 2017 attributable to the change in unrealized losses on assets still held at the end of each applicable year.

Fair value roll-forward for financial instruments classified as Level 3 for the year ended December 31, 2019

Table 6.2a

(In thousands)	Debt Securities	Equity Securities	Total Investments	Real Estate Acquired
Balance at December 31, 2018	$ 13	$ —	$ 13	$ 14,535
Total realized/unrealized gains (losses):				
Included in earnings and reported as losses incurred, net	—	—	—	(476)
Acquisitions	—	—	—	24,204
Sales	(13)	—	(13)	(31,011)
Balance at December 31, 2019	**$ —**	**$ —**	**$ —**	**$ 7,252**

Fair value roll-forward for financial instruments classified as Level 3 for the year ended December 31, 2018

Table 6.2b

(In thousands)	Debt Securities	Equity Securities	Total Investments	Real Estate Acquired
Balance at December 31, 2017	$ 271	$ 4,268	$ 4,539	$ 12,713
Reclassification for adoption of new accounting standard	—	(3,100)	(3,100)	
Total realized/unrealized gains (losses):				
Included in earnings and reported as net realized investment gains	—	3,663	3,663	
Included in earnings and reported as losses incurred, net	—	—	—	(1,995)
Acquisitions	—	—	—	33,912
Sales	(258)	(4,831)	(5,089)	(30,095)
Balance at December 31, 2018	$ 13	$ —	$ 13	$ 14,535

Fair value roll-forward for financial instruments classified as Level 3 for the year ended December 31, 2017

Table 6.2c

(In thousands)	Debt Securities	Equity Securities	Total Investments	Real Estate Acquired
Balance at December 31, 2016	$ 691	$ 4,268	$ 4,959	$ 11,748
Total realized/unrealized gains (losses):				
Included in earnings and reported as losses incurred, net	—	—	—	(1,315)
Acquisitions	—	—	—	34,749
Sales	(420)	—	(420)	(32,469)
Balance at December 31, 2017	$ 271	$ 4,268	$ 4,539	$ 12,713

Additional fair value disclosures related to our investment portfolio are included in Note 5 – “Investments.”

FINANCIAL LIABILITIES NOT CARRIED AT FAIR VALUE

Other invested assets include an investment in FHLB stock that is carried at cost, which due to restrictions that require it to be redeemed or sold only to the security issuer at par value, approximates fair value. The fair value of other invested assets is categorized as Level 2.

Financial liabilities include our outstanding debt obligations. The fair values of our 5.75% Notes and 9% Debentures were based on observable market prices. The fair value of the FHLB Advance was estimated using cash flows discounted at current incremental borrowing rates for similar borrowing arrangements, and in all cases they are categorized as Level 2. See Note 7 - "Debt" for a description of the financial liabilities in table 6.3.

Table 6.3 compares the carrying value and fair value of our financial liabilities disclosed, but not carried, at fair value as of December 31, 2019 and 2018.

Financial liabilities not carried at fair value

Table 6.3

	December 31, 2019		December 31, 2018	
(In thousands)	**Carrying Value**	**Fair Value**	Carrying Value	Fair Value
Financial assets				
Other invested assets	**$ 3,100**	**$ 3,100**	$ 3,100	$ 3,100
Financial liabilities				
FHLB Advance	**$ 155,000**	**$ 156,422**	$ 155,000	$ 150,551
5.75% Notes	**420,867**	**471,827**	419,713	425,791
9% Debentures	**256,872**	**346,289**	256,872	338,069
Total financial liabilities	**$ 832,739**	**$ 974,538**	**$ 831,585**	**$ 914,411**

The 5.75% Notes and 9% Debentures are obligations of our holding company, MGIC Investment Corporation, and not of its subsidiaries.

NOTE 7 Debt

DEBT OBLIGATIONS

Table 7.1 shows the carrying value of our long-term debt obligations as of December 31, 2019 and 2018.

Long-term debt obligations

Table 7.1

	December 31,	
(In millions)	**2019**	2018
FHLB Advance - 1.91%, due February 2023	**$ 155.0**	$ 155.0
5.75% Notes, due August 2023 (par value: $425 million)	**420.9**	419.7
9% Debentures, due April 2063	**256.9**	256.9
Long-term debt, carrying value	**$ 832.7**	$ 831.6

FHLB Advance

MGIC borrowed $155.0 million in the form of a fixed rate advance from the Federal Home Loan Bank of Chicago ("Advance"). Interest on the Advance is payable monthly at an annual rate, fixed for the term of the Advance, of 1.91%. The principal of the Advance matures on February 10, 2023. MGIC may prepay the Advance at any time. Such prepayment would be below par if interest rates have risen after the Advance was originated, or above par if interest rates have declined. The Advance is secured by eligible collateral whose market value must be maintained at 102% of the principal balance of the Advance. MGIC provided eligible collateral from its investment portfolio.

5.75% Notes

Interest on the 5.75% Notes is payable semi-annually on February 15 and August 15 of each year. We have the option to redeem these notes, in whole or in part, at any time or from time to time prior to maturity at a redemption price equal to the greater of (i)100% of the aggregate principal amount of the notes to be redeemed and (ii) the make-whole amount, which is the sum of the present values of the remaining scheduled payments of principal and interest discounted at the treasury rate defined in the notes plus 50 basis points and accrued interest.

The 5.75% Notes have covenants customary for securities of this nature, including customary events of default, and further provide that the trustee or holders of at least 25% in aggregate principal amount of the outstanding 5.75% Notes may declare them immediately due and payable upon the occurrence of certain events of default after the expiration of the applicable grace period. In addition, in the case of an event of default arising from certain events of bankruptcy, insolvency or reorganization relating to the Company or any of its significant subsidiaries, the 5.75% Notes will become due and payable immediately. This description is not intended to be complete in all respects and is qualified in its entirety by the terms of the 5.75% Notes, including their covenants and events of default. We were in compliance with all covenants as of December 31, 2019.

9% Debentures

The 9% Debentures are currently convertible, at the holder's option, at an initial conversion rate, which is subject to adjustment, of 74.4718 common shares per $1,000 principal amount of the 9% Debentures at any time prior to the maturity date. This represents an initial conversion price of approximately $13.43 per share. If a holder elects to convert their 9% Debentures, deferred interest, if any, owed on the 9% Debentures being converted is also converted into shares of our common stock. The conversion rate for any deferred interest is based on the average price that our shares traded at during a 5-day period immediately prior to the election to convert. We have 19.1 million authorized shares reserved for conversion under our 9% debentures.

The 9% Debentures include a conversion feature that allows us, at our option, to make a cash payment to converting holders in lieu of issuing shares of common stock upon conversion of the 9% Debentures. We may redeem the 9% Debentures in whole or in part from time to time, at our option, at a redemption price equal to 100% of the principal amount of the 9% Debentures being redeemed, plus any accrued and unpaid interest, if the closing sale price of our common stock exceeds $17.46 for at least 20 of the 30 trading days preceding notice of the redemption.

Interest on the 9% Debentures is payable semi-annually in arrears on April 1 and October 1 of each year. As long as no event of default with respect to the debentures has occurred and is continuing, we may defer interest, under an optional deferral provision, for one or more consecutive interest periods up to 10 years without giving rise to an event of default. Deferred interest will accrue additional interest at the rate then applicable to the debentures. During an optional deferral period we may not pay or declare dividends on our common stock.

When interest on the 9% Debentures is deferred, we are required, not later than a specified time, to use reasonable commercial efforts to begin selling qualifying securities to persons who are not our affiliates. The specified time is one business day after we pay interest on the 9% Debentures that was not deferred, or if earlier, the fifth anniversary of the scheduled interest payment date on which the deferral started. Qualifying securities are common stock, certain warrants and certain non-cumulative perpetual preferred stock. The requirement to use such efforts to sell such securities is called the Alternative Payment Mechanism.

The net proceeds of Alternative Payment Mechanism sales are to be applied to the payment of deferred interest, including the compound portion. We cannot pay deferred interest other than from the net proceeds of Alternative Payment Mechanism sales, except at the final maturity of the debentures or at the tenth anniversary of the start of the interest deferral. The Alternative Payment Mechanism does not require us to sell common stock or warrants before the fifth anniversary of the interest payment date on which that deferral started if the net proceeds (counting any net proceeds of those securities previously sold under the Alternative Payment Mechanism) would exceed the 2% cap. The 2% cap is 2% of the average closing price of our common stock times the number of our outstanding shares of common stock. The average price is determined over a specified period ending before the issuance of the common stock or warrants being sold, and the number of outstanding shares is determined as of the date of our most recent publicly released financial statements.

We are not required to issue under the Alternative Payment Mechanism a total of more than 10 million shares of common stock, including shares underlying qualifying warrants. In addition, we may not issue under the Alternative Payment Mechanism qualifying preferred stock if the total net proceeds of all issuances would exceed 25% of the aggregate principal amount of the debentures.

The Alternative Payment Mechanism does not apply during any period between scheduled interest payment dates if there is a “market disruption event” that occurs over a specified portion of such period. Market disruption events include any material adverse change in domestic or international economic or financial conditions.

The provisions of the 9% Debentures are complex. The description above is qualified in its entirety by the terms of the 9% Debentures, including their covenants and events of default. We were in compliance with all covenants at December 31, 2019. The 9% Debentures rank junior to all of our existing and future senior indebtedness.

CREDIT FACILITY

In May 2019, we terminated our $175 million unsecured revolving credit facility. At the time of termination there were no amounts drawn on the credit facility. The unused portion of our revolving credit facility was subject to recurring commitment fees, which are reflected in interest payments.

INTEREST PAYMENTS

Interest payments were $50.8 million during 2019, $51.3 million during 2018, and $57.8 million during 2017.

NOTE 8 Loss Reserves

As described in Note 3 – “Summary of Significant Accounting Policies – Loss Reserves,” Case reserves and loss adjustment expenses ("LAE") reserves are established when we receive notices of delinquency on insured mortgage loans. We consider a loan delinquent when it is two or more payments past due. Case reserves are established by estimating the number of loans in our inventory of delinquent loans that will result in a claim payment, which is referred to as the claim rate, and further estimating the amount of the claim payment, which is referred to as claim severity.

IBNR reserves are established for estimated losses from delinquencies occurring prior to the close of an accounting period on notices of delinquency not yet reported to us. IBNR reserves are also established using estimated claim rates and claim severities

Estimation of losses is inherently judgmental. The conditions that affect the claim rate and claim severity include the current and future state of the domestic economy, including unemployment and the current and future strength of local housing markets; exposure on insured loans; the amount of time between delinquency and claim filing; and curtailments and rescissions. The actual amount of the claim payments may be substantially different than our loss reserve estimates. Our estimates could be adversely affected by several factors, including a deterioration of regional or national economic conditions, including unemployment, leading to a reduction in borrowers' income and thus their ability to make mortgage payments, and a drop in housing values which may affect borrower willingness to continue to make mortgage payments when the value of the home is below the mortgage balance. Changes to our estimates could result in a material impact to our consolidated results of operations and financial position, even in a stable economic environment.

LOSSES INCURRED

The "Losses incurred" section of table 8.1 below shows losses incurred on delinquencies that occurred in the current year and in prior years. The amount of losses incurred relating to delinquencies that occurred in the current year represents the estimated amount to be ultimately paid on such delinquencies. The amount of losses incurred relating to delinquencies that occurred in prior years represents the difference between the actual claim rate and severity associated with those delinquencies resolved in the current year compared to the estimated claim rate and severity at the prior year-end, as well as a re-estimation of amounts to be ultimately paid on delinquencies continuing from the end of the prior year. This re-estimation of the claim rate and severity is the result of our review of current trends in the delinquent inventory, such as percentages of delinquencies that have resulted in a claim, the amount of the claims relative to the average loan exposure, changes in the relative level of delinquencies by geography and changes in average loan exposure.
Losses incurred on delinquencies that occurred in the current year decreased in 2019 compared to 2018 and in 2018 compared to 2017, in each case, primarily due to a decrease in the number of new delinquencies, net of cures, as well as a decrease in the estimated claim rate on recently reported delinquencies.

LOSSES PAID

The "Losses paid" section of table 8.1 below shows the amount of losses paid on delinquencies that occurred in the current year and losses paid on delinquencies that occurred in prior years. For several years, the average time it took to receive a claim associated with a delinquency had increased significantly from our historical experience of approximately twelve months. This was, in part, due to new loss mitigation protocols established by servicers and to changes in some state foreclosure laws that may include, for example, a requirement for additional review and/or mediation processes. In recent quarters, we have experienced a decline in the average time it takes servicers are utilizing to process foreclosures, which has reduced the average time to receive a claim associated with new delinquent notices that do not cure. All else being equal, the longer the period between delinquency and claim filing, the greater the severity.

Premium refunds

Our estimate of premiums to be refunded on expected claim payments is accrued for separately in "Other liabilities" on our consolidated balance sheets and approximated $30 million and $40 million at December 31, 2019 and 2018, respectively.

Table 8.1 provides a reconciliation of beginning and ending loss reserves for each of the past three years:

Development of loss reserves

Table 8.1 *(In thousands)*	**2019**	2018	2017
Reserve at beginning of year	**$ 674,019**	$ 985,635	$ 1,438,813
Less reinsurance recoverable	**33,328**	48,474	50,493
Net reserve at beginning of year	**640,691**	937,161	1,388,320
Losses incurred:			
Losses and LAE incurred in respect of delinquent notices received in:			
Current year	**189,581**	203,928	284,913
Prior years [1]	**(71,006)**	(167,366)	(231,204)
Total losses incurred	**118,575**	36,562	53,709
Losses paid:			
Losses and LAE paid in respect of delinquent notices received in:			
Current year	**4,018**	7,298	11,267
Prior years	**235,551**	327,743	493,300
Reinsurance terminations	**(13,996)**	(2,009)	301
Total losses paid	**225,573**	333,032	504,868
Net reserve at end of year	**533,693**	640,691	937,161
Plus reinsurance recoverables	**21,641**	33,328	48,474
Reserve at end of year	**$ 555,334**	$ 674,019	$ 985,635

(1) A negative number for prior year losses incurred indicates a redundancy of prior year loss reserves. See table 8.2 below for more information about prior year loss development.

Table 8.2 below shows the development of reserves in 2019, 2018 and 2017 for previously received delinquencies.

Reserve development on previously received delinquencies

Table 8.2 *(In millions)*	**2019**	2018	2017
Decrease in estimated claim rate on primary delinquencies	**$ (112)**	$ (213)	$ (248)
(Decrease) increase in estimated severity on primary delinquencies	**(1)**	29	9
Change in estimates related to pool reserves, LAE reserves, reinsurance and other	**42**	17	8
Total prior year loss development [1]	**$ (71)**	$ (167)	$ (231)

(1) A negative number for prior year loss development indicates a redundancy of prior year loss reserves.

For the years ended December 31, 2019, 2018 and 2017, we experienced favorable development on previously received delinquencies. This development was, in part, due to the resolution of approximately 69%, 73% and 67% for the years ended December 31, 2019, 2018 and 2017, respectively, of the prior year delinquent inventory, with improved cure rates. During 2019, 2018, and 2017, cure activity on loans that were delinquent twelve months or more was significantly higher than our previous estimates. During 2019, the favorable development was offset by adjustments to LAE reserves and amounts paid in settlement of disputes for claim paying practices. See Note 17 – "Litigation and Contingencies." The favorable development for the years ended 2018 and 2017 was offset, in part, by an increase in the estimated severity on previously reported delinquencies remaining in the delinquent inventory.

DELINQUENT INVENTORY

A roll-forward of our primary delinquent inventory for the years ended December 31, 2019, 2018, and 2017 appears in table 8.3 below. The information concerning new notices and cures is compiled from monthly reports received from loan servicers. The level of new notice and cure activity reported in a particular month can be influenced by, among other things, the date on which a servicer generates its report, the number of business days in a month and transfers of servicing between loan servicers.

Primary delinquent inventory roll-forward

Table 8.3

	2019	2018	2017
Beginning delinquent inventory	**32,898**	46,556	50,282
New Notices	**54,239**	54,448	68,268
Cures	**(52,035)**	(60,511)	(61,094)
Paid claims	**(4,267)**	(5,750)	(9,206)
Rescissions and denials	**(168)**	(267)	(357)
Other items removed from inventory	**(639)**	(1,578)	(1,337)
Ending delinquent inventory	**30,028**	32,898	46,556

Hurricane activity

New delinquent notice activity increased in 2017 (particularly in the fourth quarter) because of hurricane activity that primarily impacted Puerto Rico, Texas, and Florida in the third quarter of 2017. In response to the hurricanes, the Federal Emergency Management Agency declared Individual Assistance Disaster Areas ("IADA") which we used to identify new notices of delinquency for reserving and loss mitigation purposes. We received 9,294 new notices of delinquency on loans in the IADAs in the fourth quarter of 2017. Loans in our ending delinquent inventory within the IADAs were 12,446 as of December 31, 2017. The majority of notices of delinquency received from the IADAs due to the hurricane activity cured during 2018.

Other items removed from inventory

During 2019, 2018, and 2017 our losses paid included amounts paid upon commutation of coverage on policies . The impacts of the commutations of coverage on policies and/or settlements in each of the past three years were as follows:

- 2019 - 639 notices removed from delinquent inventory with an amount paid of $30 million,
- 2018 - 1,578 notices removed from delinquent inventory with an amount paid of $50 million,
- 2017 - 1,337 notices removed from delinquent inventory with an amount paid of $54 million.

In 2019 our losses paid included $23.5 million paid in connection with settlements of disputes concerning our claims paying practices.

Aging of delinquent inventory

Historically as a delinquency ages it becomes more likely to result in a claim. The new notice activity from hurricane impacted areas in the fourth quarter of 2017 increased the percentage of our delinquent inventory that had been delinquent for three months or less (table 8.4) as of December 31, 2017.

The number of consecutive months that a borrower has been delinquent is shown in table 8.4 below.

Primary delinquent inventory - consecutive months delinquent

Table 8.4

	December 31,		
	2019	2018	2017
3 months or less	**9,447**	9,829	17,119
4 - 11 months	**9,664**	9,655	12,050
12 months or more [(1)]	**10,917**	13,414	17,387
Total	**30,028**	32,898	46,556
3 months or less	**32%**	30%	37%
4 - 11 months	**32%**	29%	26%
12 months or more	**36%**	41%	37%
Total	**100%**	100%	100%
Primary claims received inventory included in ending delinquent inventory	**538**	809	954

(1) Approximately 36%, 38%, and 45% of the delinquent inventory for 12 consecutive months or more has been delinquent for at least 36 consecutive months as of December 31, 2019, 2018 and 2017, respectively.

POOL INSURANCE DEFAULT INVENTORY

Pool insurance default inventory decreased to 653 at December 31, 2019 from 859 at December 31, 2018 and 1,309 at December 31, 2017.

CLAIMS PAYING PRACTICES

Our loss reserving methodology incorporates our estimates of future rescissions. A variance between ultimate actual rescission rates and our estimates, as a result of the outcome of litigation, settlements or other factors, could materially affect our losses. Our estimate of premiums to be refunded on expected future rescissions is accrued for separately and is included in "Other liabilities" on our consolidated balance sheets.

For information about discussions and legal proceedings with customers with respect to our claims paying practices, see Note 17 – "Litigation and Contingencies."

NOTE 9 Reinsurance

Our consolidated financial statements reflect the effects of assumed and ceded reinsurance transactions. Assumed reinsurance refers to the acceptance of certain insurance risks that other insurance companies have underwritten. Ceded reinsurance involves transferring certain insurance risks (along with the related earned premiums) we have underwritten to other insurance companies who agree to share these risks. The purpose of ceded reinsurance is to protect us, at a cost, against losses arising from our mortgage guaranty policies covered by the agreement and to manage our capital requirements under PMIERs. Reinsurance is currently placed on a quota share and excess of loss basis, but we also have immaterial captive reinsurance agreements that remain in effect.

Table 9.1 below shows the effect of all reinsurance agreements on premiums earned and losses incurred as reflected in the consolidated statements of operations.

Reinsurance

Table 9.1

	Years ended December 31,		
(In thousands)	**2019**	2018	2017
Premiums earned:			
Direct	**$1,155,240**	$ 1,084,748	$ 1,059,973
Assumed	**5,085**	1,805	509
Ceded	**(129,337)**	(111,391)	(125,735)
Net premiums earned	**$1,030,988**	$ 975,162	$ 934,747
Losses incurred:			
Direct	**$ 130,100**	$ 43,060	$ 74,727
Assumed	**(125)**	331	183
Ceded	**(11,400)**	(6,829)	(21,201)
Net losses incurred	**$ 118,575**	$ 36,562	$ 53,709

QUOTA SHARE REINSURANCE

Each of the reinsurers under our quota share reinsurance agreements described below has an insurer financial strength rating of A- or better (or a comparable rating) by Standard and Poor's Rating Services, A.M. Best, Moody's, or a combination of the three.

2019 QSR Transaction. We entered into a QSR transaction with a group of unaffiliated reinsurers with an effective date of January 1, 2019 (“2019 QSR Transaction”), which provides coverage on eligible NIW in 2019. Under the 2019 QSR Transaction, we will cede losses and premiums on or after the effective date through December 31, 2030, at which time the agreement expires. Early termination of the agreement can be elected by us effective December 31, 2021 or bi-annually thereafter, for a fee, or under specified scenarios for no fee upon prior written notice, including if we will receive less than 90% of the full credit amount under the PMIERs, full financial statement credit or full credit under applicable regulatory capital requirements for the risk ceded in any required calculation period.

The structure of the 2019 QSR Transaction is a 30% quota share, with a one-time option, elected by us, to reduce the cede rate to either 25% or 20% effective July 1, 2020, or bi-annually thereafter, for a fee, for all policies covered, with a 20% ceding commission as well as a profit commission. Generally, under the 2019 QSR Transaction, we will receive an annual profit commission provided the annual loss ratio on the loans covered under the transactions remains below 62%.

2018 QSR Transaction. Our 2018 quota share reinsurance agreement ("2018 QSR Transaction") provides coverage on eligible NIW in 2018. Under the 2018 QSR Transaction, we cede losses incurred and premiums on or after the effective date through December 31, 2029, at which time the agreement expires. Early termination of the agreement can be elected by us effective December 31, 2021, and annually thereafter, for a fee, or under specified scenarios for no fee upon prior written notice, including if we will receive less than 90% of the full credit amount under the PMIERs, full financial statement credit or full credit under applicable regulatory capital requirements for the risk ceded in any required calculation period.

The structure of the 2018 QSR Transaction is a 30% quota share for all policies covered, with a 20% ceding commission as well as a profit commission. Generally, under the 2018 QSR Transaction, we will receive an annual profit commission provided the annual loss ratio on the loans covered under the transactions remains below 62%.

2017 QSR Transaction. Our 2017 quota share reinsurance agreement ("2017 QSR Transaction") provides coverage on eligible NIW in 2017. Under our 2017 QSR Transaction, we cede losses incurred and premiums on or after the effective date through December 31, 2028, at which time the agreement expires. Early termination of the agreement can be elected by us effective December 31, 2021 for a fee, or under specified scenarios for no fee upon prior written notice, including if we will receive less than 90% of the full credit amount under the PMIERs, full financial statement credit or full credit under applicable regulatory capital requirements for the risk ceded in any required calculation period.

The structure of the 2017 QSR Transaction is a 30% quota share for all policies covered, with a 20% ceding commission as well as a profit commission.

Generally, under the 2017 QSR Transaction, we will receive an annual profit commission provided the annual loss ratio on the loans covered under the transactions remains below 60%.

2015 QSR Transaction. We terminated a portion of our 2015 QSR Transaction effective June 30, 2019 and entered into an amended quota share reinsurance agreement with certain participants from the existing reinsurance panel that effectively reduces the quota share cede rate from 30% to 15% on the remaining eligible insurance. During the second quarter of 2019, we incurred a termination fee of $6.8 million, which was paid to participants of the reinsurance panel that are not participating in the amended 2015 QSR Transaction. Under the amended 2015 QSR Transaction we cede losses and premiums on eligible insurance written before 2017 through December 31, 2031, at which time the agreement expires. Early termination of the amended agreement can be elected by us on or after June 30, 2021, bi-annually thereafter for no fee, or under specified scenarios, including if we will receive less than 90% of the full credit amount under the PMIERs, full financial statement credit or full credit under applicable regulatory capital requirements for the risk ceded in any required calculation period. Generally, under our amended 2015 QSR Transaction, we will receive an annual profit commission provided the annual loss ratio on the loans covered under the transactions remains below 68%.

Table 9.2 provides a summary of our quota share reinsurance agreements, excluding captive agreements, for 2019, 2018 and 2017.

Quota share reinsurance

Table 9.2

	Years ended December 31,		
(In thousands)	**2019**	2018	2017
Ceded premiums written and earned, net of profit commission [1]	**$111,550**	$ 108,337	$ 120,974
Ceded losses incurred	**11,395**	6,543	22,336
Ceding commissions [2]	**48,793**	51,201	49,321
Profit commission	**139,179**	147,667	125,629

(1) Under our QSR Transactions, premiums are ceded on an earned and received basis as defined in our agreements.

(2) Ceding commissions are reported within Other underwriting and operating expenses, net on the consolidated statements of operations.

Under the terms of our QSR Transactions currently in effect, reinsurance premiums, ceding commission and profit commission are settled net on a quarterly basis. The reinsurance premium due after deducting the related ceding commission and profit commission is reported within "Other liabilities" on the consolidated balance sheets.

The reinsurance recoverable on loss reserves was $21.6 million as of December 31, 2019 and $33.2 million as of December 31, 2018. The reinsurance recoverable balance is secured by funds on deposit from the reinsurers, the amount of which is based on the funding requirements of PMIERs.

2020 QSR Transaction. We have agreed to terms on a QSR Transaction with a group of unaffiliated reinsurers with an effective date of January 1, 2020 ("2020 QSR Transaction"), which provides coverage on eligible NIW in 2020

Under the 2020 QSR Transaction, we cede losses incurred and premiums on or after the effective date through December 31, 2031, at which time the agreement expires. Early termination of the agreement can be elected by us effective December 31, 2022, and bi-annually thereafter, for a fee, or under specified scenarios for no fee upon prior written notice, including if we will receive less than 90% of the full credit amount under the PMIERs for the risk ceded in any required calculation period.

The structure of the 2020 QSR Transaction is a 30% quota share on 2020 NIW, with an option to reduce the cede rate to either 25.0% or 20% effective July 1, 2021 or semiannually thereafter. Generally, under the 2020 QSR Transaction, we will receive an annual profit commission provided the annual loss ratio on the loans covered under the transactions remains below 62%.

2021 QSR Transaction. In addition, we have agreed to terms on a QSR Transaction with a group of unaffiliated reinsurers with an effective date of January 1, 2021 ("2021 QSR Transaction"), which provides coverage on eligible NIW in 2021.

Under the 2021 QSR Transaction, we cede losses incurred and premiums on or after the effective date through December 31, 2032 for 2021 NIW, at which time the agreement expires. Early termination of the agreement can be elected by us effective December 31, 2023, and bi-annually thereafter, for a fee, or under specified scenarios for no fee upon prior written notice, including if we will receive less than 90% of the full credit amount under the PMIERs for the risk ceded in any required calculation period.

The structure of the 2021 QSR Transaction is a 17.5% quota share on 2021 NIW, with an option to reduce the cede rate to either 14.5% or 12% effective July 1, 2022 or semiannually thereafter. Generally, under the 2021 QSR Transaction, we will receive an annual profit commission provided the annual loss ratio on the loans covered under the transactions remains below 62%.

EXCESS OF LOSS REINSURANCE

We have aggregate excess of loss reinsurance agreements (“Home Re Transactions”) with unaffiliated special purpose insurers domiciled in Bermuda (“Home Re Entities”). For the reinsurance coverage periods, we retain the first layer of the respective aggregate losses, and a Home Re special purpose entity will then provide second layer coverage up to the outstanding reinsurance coverage amount. We retain losses in excess of the outstanding reinsurance coverage amount. The aggregate excess of loss reinsurance coverage decreases over a ten-year period, subject to certain conditions, as the underlying covered mortgages amortize or are repaid, or mortgage insurance losses are paid. MGIC has rights to terminate the Home Re Transactions under certain circumstances. The Home Re entities financed the coverages by issuing mortgage insurance-linked notes (“ILNs”) to unaffiliated investors in an aggregate amount equal to the initial reinsurance coverage amounts. The ILNs each have ten-year legal maturities and are non-recourse to any assets of MGIC or affiliates. The proceeds of the ILNs, which were deposited into reinsurance trusts for the benefit of MGIC, will be the source of reinsurance claim payments to MGIC and principal repayments on the ILNs.

Table 9.3 provides a summary of our excess of loss reinsurance agreements as of December 31, 2019 and December 31, 2018.

Excess of Loss Reinsurance

Table 9.3

(In thousands)			**As of December 31, 2019**		As of December 31, 2018	
Home Re Entity (Issue Date)	Policy Inforce Dates	Termination Option Date (1)	**Remaining First Layer Retention**	**Remaining Excess of Loss Reinsurance Coverages**	Remaining First Layer Retention	Remaining Excess of Loss Reinsurance Coverages
Home Re 2018-1 Ltd. (Oct. - 2018)	July 1, 2016 - December 31, 2017	October 25, 2025	**$ 167,779**	**$ 260,957**	$ 168,691	$ 318,636
Home Re 2019-1 Ltd. (May - 2019)	January 1, 2018 - March 31, 2019	May 25, 2026	**185,636**	**271,021**	—	—
Total			**$ 353,415**	**$ 531,978**	$ 168,691	$ 318,636

(1) We have the right to terminate the excess-of-loss reinsurance agreements under certain circumstances and on any payment date on or after the respective termination option date.

The reinsurance premiums ceded to each Home Re Entity are composed of coverage, initial expense and supplemental premiums. The coverage premiums are generally calculated as the difference between the amount of interest payable by the Home Re Entity on the unpaid portion of the ILNs it issued to raise funds to collateralize its reinsurance obligations to us, and the investment income collected on the collateral assets. The amount of monthly reinsurance coverage premium ceded will fluctuate due to changes in one-month LIBOR, (or the fallback reference rate, as applicable) and changes in money market rates that affect investment income collected on the assets in the reinsurance trust. As a result, we concluded that each reinsurance agreement contains an embedded derivative that is accounted for separately as a freestanding derivative. The fair values of the derivatives at December 31, 2019, were not material to our consolidated balance sheet, and the change in fair values during the year ended December 31, 2019 were not material to our consolidated statements of operations. Total ceded premiums were $17.6 million and $2.8 million for the years ended December 31, 2019 and December 31, 2018, respectively.

At the time the Home Re Transactions were entered into, we concluded that each Home Re Entity is a variable interest entity ("VIE"). A VIE is a legal entity that does not have sufficient equity at risk to finance its activities without additional subordinated financial support or is structured such that equity investors lack the ability to make sufficient decisions relating to the entity's operations through voting rights or do not substantively participate in gains and losses of the entity. Given that MGIC (1) does not have the unilateral power to direct the activities that most significantly affect each Home Re Entity's economic performance and (2) does not have the obligation to absorb losses or the right to receive benefits of each Home Re Entity, consolidation of neither Home Re Entity is required.

We are required to disclose our maximum exposure to loss, which we consider to be an amount that we could be required to record in our statements of operations, as a result of our involvement with the VIEs under our Home Re Transactions. As of December 31, 2019, and December 31, 2018, we did not have material exposure to the VIEs as we have no investment in the VIEs and had no reinsurance claim payments due from either VIE under our reinsurance agreements. We are unable to determine the timing or extent of claims from losses that are ceded under the reinsurance agreements. The VIE assets are deposited in reinsurance trusts for the benefit of MGIC that will be the source of reinsurance claim payments to MGIC. The purpose of the reinsurance trusts is to provide security to MGIC for the obligations of the VIEs under the reinsurance agreements. The trustee of the reinsurance trusts, a recognized provider of corporate trust services, has established segregated accounts within the reinsurance trusts for the benefit of MGIC, pursuant to the trust agreements. The trust agreements are governed by, and construed in accordance with, the laws of the State of New York. If the trustee of the reinsurance trusts failed to distribute claim payments to us as provided in the reinsurance trusts, we would incur a loss related to our losses ceded under the reinsurance agreements and deemed unrecoverable. We are also unable to determine the impact such possible failure by the trustee to perform pursuant to the reinsurance trust agreements may have on our consolidated financial statements. As a result, we are unable to quantify our maximum exposure to loss related to our involvement with the VIEs. MGIC has certain termination rights under the reinsurance agreements should its claims not be paid. We consider our exposure to loss from our reinsurance agreements with the VIEs to be remote.

Table 9.4 presents the total assets of Home Re Entities as of December 31, 2019 and December 31, 2018.

Home Re Entities total assets

Table 9.4

(In thousands)

Home Re Entity		Total VIE Assets
December 31, 2019		
Home Re 2018-01 Ltd.	$	269,451
Home Re 2019-01 Ltd.	$	283,150
December 31, 2018		
Home Re 2018-1 Ltd.	$	318,636

The reinsurance trust agreements provide that the trust assets may generally only be invested in certain money market funds that (i) invest at least 99.5% of their total assets in cash or direct U.S. federal government obligations, such as U.S. Treasury bills, as well as other short-term securities backed by the full faith and credit of the U.S. federal government or issued by an agency of the U.S. federal government, (ii) have a principal stability fund rating of “AAAm” by S&P or a money market fund rating of “Aaa-mf” by Moody’s as of the Closing Date and thereafter maintain any rating with either S&P or Moody’s, and (iii) are permitted investments under the applicable credit for reinsurance laws and applicable PMIERs credit for reinsurance requirements.

The assets of the Home Re Entities provide capital credit under the PMIERs financial requirements (see Note 1 - "Nature of Business"). A decline in the assets available to pay claims would reduce the capital credit available to MGIC.

NOTE 10 Other Comprehensive Income (Loss)

The pretax components of our other comprehensive income (loss) and related income tax (expense) benefit for the years ended December 31, 2019, 2018 and 2017 are included in table 10.1 below.

Components of other comprehensive income (loss)

Table 10.1 *(In thousands)*	**2019**	2018	2017
Net unrealized investment gains (losses) arising during the year	**$ 220,139**	$ (81,834)	$ 69,052
Income tax (expense) benefit	**(46,229)**	17,188	(21,505)
Net of taxes	**173,910**	(64,646)	47,547
Net changes in benefit plan assets and obligations	**29,129**	(19,958)	(8,983)
Income tax (expense) benefit	**(6,117)**	4,191	3,144
Net of taxes	**23,012**	(15,767)	(5,839)
Net changes in unrealized foreign currency translation adjustment	**—**	—	45
Income tax benefit (expense)	**—**	—	(14)
Net of taxes	**—**	—	31
Total other comprehensive income (loss)	**249,268**	(101,792)	60,114
Total income tax (expense) benefit, net	**(52,346)**	21,379	(18,375)
Total other comprehensive income (loss), net of tax	**$ 196,922**	$ (80,413)	$ 41,739

The pretax and related income tax benefit (expense) components of the amounts reclassified from our accumulated other comprehensive income (loss) ("AOCI", "AOCL") to our consolidated statements of operations for the years ended December 31, 2019, 2018 and 2017 are included in table 10.2 below.

Reclassifications from Accumulated Other Comprehensive Income (Loss)

Table 10.2 *(In thousands)*	**2019**	2018	2017
Reclassification adjustment for net realized (losses) gains included in net income [(1)]	**$ 3,637**	$ (7,037)	$ (2,580)
Income tax (expense) benefit	**(763)**	1,477	903
Net of taxes	**2,874**	(5,560)	(1,677)
Reclassification adjustment related to benefit plan assets and obligations [(2)]	**(8,097)**	(2,232)	906
Income tax benefit (expense)	**1,701**	469	(317)
Net of taxes	**(6,396)**	(1,763)	589
Total reclassifications	**(4,460)**	(9,269)	(1,674)
Total income tax benefit, net	**938**	1,946	586
Total reclassifications, net of tax	**$ (3,522)**	$ (7,323)	$ (1,088)

(1) (Decreases) increases Net realized investment gains on the consolidated statements of operations.

(2) Decreases (increases) Other underwriting and operating expenses, net on the consolidated statements of operations.

A roll-forward of AOCI (AOCL) for the years ended December 31, 2019, 2018, and 2017, including amounts reclassified from AOCI (AOCL), is included in table 10.3 below.

Roll-forward of Accumulated Other Comprehensive Income (Loss)

Table 10.3

(In thousands)	Net unrealized gains and losses on available-for-sale securities	Net benefit plan assets and obligations recognized in shareholders' equity	Net unrealized foreign currency translation	Total AOCL
Balance, December 31, 2016, net of tax	$ (20,797)	$ (54,272)	$ (31)	$ (75,100)
Other comprehensive income (loss) before reclassifications	45,870	(5,250)	31	40,651
Less: Amounts reclassified from AOCL	(1,677)	589	—	(1,088)
Less: Amounts reclassified for lower enacted corporate tax rate	(2,525)	12,947	—	10,422
Balance, December 31, 2017, net of tax	29,275	(73,058)	—	(43,783)
Cumulative effect of adopting the accounting standard update for financial instruments	(18)	—	—	(18)
Other comprehensive income (loss) before reclassifications	(70,206)	(17,530)	—	(87,736)
Less: Amounts reclassified from AOCL	(5,560)	(1,763)	—	(7,323)
Balance, December 31, 2018, net of tax	(35,389)	(88,825)	—	(124,214)
Other comprehensive income (loss) before reclassifications	176,784	16,616	—	193,400
Less: Amounts reclassified from AOCL	2,874	(6,396)	—	(3,522)
Balance, December 31, 2019, net of tax	**$ 138,521**	**$ (65,813)**	**$ —**	**72,708**

NOTE 11 Benefit Plans

We have a non-contributory defined benefit pension plan covering substantially all domestic employees, as well as a supplemental executive retirement plan. We also offer both medical and dental benefits for retired domestic employees, their eligible spouses and dependents under a postretirement benefit plan. The following tables 11.1, 11.2, and 11.3 provide the components of aggregate annual net periodic benefit cost for each of the years ended December 31, 2019, 2018, and 2017 and changes in the benefit obligation and the funded status of the pension, supplemental executive retirement and other postretirement benefit plans as recognized in the consolidated balance sheets as of December 31, 2019 and 2018.

Components of net periodic benefit cost

Table 11.1

	Pension and Supplemental Executive Retirement Plans			Other Postretirement Benefits		
(In thousands)	**12/31/2019**	12/31/2018	12/31/2017	**12/31/2019**	12/31/2018	12/31/2017
1. Company Service Cost	**$ 8,345**	$ 10,530	$ 9,556	**$ 1,345**	$ 1,160	$ 813
2. Interest Cost	**15,705**	15,095	15,475	**1,130**	834	706
3. Expected Return on Assets	**(19,466)**	(22,250)	(20,099)	**(5,785)**	(6,359)	(5,248)
4. Other Adjustments	**—**	—	—	**—**	—	—
Subtotal	**4,584**	3,375	4,932	**(3,310)**	(4,365)	(3,729)
5. Amortization of:						
a. Net Transition Obligation/(Asset)	**—**	—	—	**—**	—	—
b. Net Prior Service Cost/(Credit)	**(281)**	(351)	(426)	**(34)**	(4,104)	(6,649)
c. Net Losses/(Gains)	**8,412**	6,937	6,169	**—**	(250)	—
Total Amortization	**8,131**	6,586	5,743	**(34)**	(4,354)	(6,649)
6. Net Periodic Benefit Cost	**12,715**	9,961	10,675	**(3,344)**	(8,719)	(10,378)
7. Cost of settlements	**1,933**	—	—	**—**	—	—
8. Total Expense for Year	**$ 14,648**	$ 9,961	$ 10,675	**$ (3,344)**	$ (8,719)	$ (10,378)

Development of funded status

Table 11.2

	Pension and Supplemental Executive Retirement Plans		Other Postretirement Benefits	
(In thousands)	**12/31/2019**	12/31/2018	**12/31/2019**	12/31/2018
Actuarial Value of Benefit Obligations				
1. Measurement Date	**12/31/2019**	12/31/2018	**12/31/2019**	12/31/2018
2. Accumulated Benefit Obligation	**$ 412,939**	$ 375,562	**$ 27,496**	$ 28,085
Funded Status/Asset (Liability) on the Consolidated Balance Sheet				
1. Projected Benefit Obligation	**$ (413,350)**	$ (376,153)	**$ (27,496)**	$ (28,085)
2. Plan Assets at Fair Value	**402,691**	359,719	**99,590**	77,762
3. Funded Status - Overfunded/Asset	**N/A**	N/A	**$ 72,094**	$ 49,677
4. Funded Status - Underfunded/Liability	**(10,659)**	(16,434)	**N/A**	N/A

Accumulated other comprehensive (income) loss

Table 11.3

(In thousands)	Pension and Supplemental Executive Retirement Plans 12/31/2019	12/31/2018	Other Postretirement Benefits 12/31/2019	12/31/2018
1. Net Actuarial (Gain)/Loss	**$ 99,826**	$ 110,321	**$ (18,005)**	$ 939
2. Net Prior Service Cost/(Credit)	**(1,237)**	(1,513)	**2,724**	2,690
3. Net Transition Obligation/(Asset)	**—**	—	**—**	—
4. Total at Year End	**$ 98,589**	$ 108,808	**$ (15,281)**	$ 3,629

The amortization of gains and losses resulting from actual experience different from assumed experience or changes in assumptions including discount rates is included as a component of Net Periodic Benefit Cost/(Income) for the year. The gain or loss in excess of a 10% corridor is amortized by the average remaining service period of participating employees expected to receive benefits under the plan.

Table 11.4 shows the changes in the projected benefit obligation for 2019 and 2018.

Change in projected benefit / accumulated benefit

Table 11.4

(In thousands)	Pension and Supplemental Executive Retirement Plans 12/31/2019	12/31/2018	Other Postretirement Benefits 12/31/2019	12/31/2018
1. Benefit Obligation at Beginning of Year	**$ 376,153**	$ 417,770	**$ 28,085**	$ 24,716
2. Company Service Cost	**8,345**	10,530	**1,345**	1,160
3. Interest Cost	**15,705**	15,095	**1,130**	834
4. Plan Participants' Contributions	**—**	—	**382**	475
5. Net Actuarial (Gain)/Loss due to Assumption Changes	**43,302**	(36,132)	**(1,215)**	(1,209)
6. Net Actuarial (Gain)/Loss due to Plan Experience	**3,811**	2,487	**(860)**	(692)
7. Benefit Payments from Fund [(1)]	**(30,829)**	(32,674)	**(826)**	(1,077)
8. Benefit Payments Directly by Company	**(3,105)**	(908)	**—**	—
9. Plan Amendments	**(5)**	(15)	**—**	3,928
10. Other Adjustment	**—**	—	**(545)**	(50)
11. Settlement (Gain)/Loss	**(27)**	—	**—**	—
11. Benefit Obligation at End of Year	**$ 413,350**	$ 376,153	**$ 27,496**	$ 28,085

(1) Includes lump sum payments of $18.5 million and $20.9 million in 2019 and 2018, respectively, from our pension plan to eligible participants, which were former employees with vested benefits.

The increase in our pension and supplemental executive retirement plans obligation in 2019 compared to 2018 was primarily due to a decrease in the discount rate used to calculate the obligation partially offset by benefits paid from the fund. Table 11.8 below includes the actuarial assumptions used to calculate the benefit obligations of our plans for 2019 and 2018.

Tables 11.5 and 11.6 shows the changes in the fair value of the net assets available for plan benefits, and changes in other comprehensive income (loss) during 2019 and 2018.

Change in plan assets

Table 11.5

(In thousands)	Pension and Supplemental Executive Retirement Plans 12/31/2019	Pension and Supplemental Executive Retirement Plans 12/31/2018	Other Postretirement Benefits 12/31/2019	Other Postretirement Benefits 12/31/2018
1. Fair Value of Plan Assets at Beginning of Year	**$ 359,719**	$ 401,142	**$ 77,762**	$ 85,303
2. Company Contributions	**10,205**	10,908	**—**	—
3. Plan Participants' Contributions	**—**	—	**382**	475
4. Benefit Payments from Fund	**(30,829)**	(32,674)	**(826)**	(1,077)
5. Benefit Payments paid directly by Company	**(3,105)**	(908)	**—**	—
6. Actual Return on Assets	**70,262**	(19,583)	**22,654**	(6,464)
7. Other Adjustment	**(3,561)**	834	**(382)**	(475)
8. Fair Value of Plan Assets at End of Year	**$ 402,691**	$ 359,719	**$ 99,590**	$ 77,762

Change in accumulated other comprehensive income (loss) ("AOCI")

Table 11.6

(In thousands)	Pension and Supplemental Executive Retirement Plans 12/31/2019	Pension and Supplemental Executive Retirement Plans 12/31/2018	Other Postretirement Benefits 12/31/2019	Other Postretirement Benefits 12/31/2018
1. AOCI in Prior Year	**$ 108,808**	$ 108,054	**$ 3,629**	$ (15,576)
2. Increase/(Decrease) in AOCI				
a. Recognized during year - Prior Service (Cost)/Credit	**281**	351	**34**	4,104
b. Recognized during year - Net Actuarial (Losses)/Gains	**(8,412)**	(6,937)	**—**	250
c. Occurring during year - Prior Service Cost	**(5)**	(15)	**—**	3,928
d. Occurring during year - Net Actuarial Losses/(Gains)	**(150)**	7,355	**(18,944)**	10,923
e. Occurring during year - Net Settlement Losses/(Gains)	**(1,933)**	—	**—**	—
3. AOCI in Current Year	**$ 98,589**	$ 108,808	**$ (15,281)**	$ 3,629

Table 11.7 shows the amount of amortization on components of net periodic benefit costs expected to be recognized during the year ending December 31, 2020.

Amortization expected to be recognized during fiscal year ending

Table 11.7

(In thousands)	Pension and Supplemental Executive Retirement Plans 12/31/2019	Other Postretirement Benefits 12/31/2019
1. Amortization of Net Transition Obligation/(Asset)	**$ —**	**$ —**
2. Amortization of Prior Service Cost/(Credit)	**(248)**	**51**
3. Amortization of Net Losses/(Gains)	**6,534**	**(761)**

The projected benefit obligations, net periodic benefit costs and accumulated postretirement benefit obligation for the plans were determined using the following weighted average assumptions.

Actuarial assumptions

Table 11.8

	Pension and Supplemental Executive Retirement Plans		Other Postretirement Benefits	
	12/31/2019	12/31/2018	**12/31/2019**	12/31/2018
Weighted-Average Assumptions Used to Determine				
Benefit Obligations at year end				
1. Discount Rate	**3.45%**	4.40%	**3.20%**	4.25%
2. Rate of Compensation Increase	**3.00%**	3.00%	**N/A**	N/A
Weighted-Average Assumptions Used to Determine				
Net Periodic Benefit Cost for Year				
1. Discount Rate	**4.40%**	3.75%	**4.25%**	3.55%
2. Expected Long-term Return on Plan Assets	**5.75%**	5.75%	**7.50%**	7.50%
3. Rate of Compensation Increase	**3.00%**	3.00%	**N/A**	N/A
Assumed Health Care Cost Trend Rates at year end				
1. Health Care Cost Trend Rate Assumed for Next Year	**N/A**	N/A	**6.00%**	6.25%
2. Rate to Which the Cost Trend Rate is Assumed to Decline (Ultimate Trend Rate)	**N/A**	N/A	**5.00%**	5.00%
3. Year That the Rate Reaches the Ultimate Trend Rate	**N/A**	N/A	**2024**	2024

In selecting a discount rate, we performed a hypothetical cash flow bond matching exercise, matching our expected pension plan and postretirement medical plan cash flows, respectively, against a selected portfolio of high quality corporate bonds. The modeling was performed using a bond portfolio of noncallable bonds with at least $50 million outstanding. The average yield of these hypothetical bond portfolios was used as the benchmark for determining the discount rate. In selecting the expected long-term rate of return on assets, we considered the average rate of earnings expected on the classes of funds invested or to be invested to provide for the benefits of these plans. This included considering the trusts' targeted asset allocation for the year and the expected returns likely to be earned over the next 20 years.

The year-end asset allocations of the plans are shown in table 11.9 below.

Plan assets

Table 11.9

	Pension Plan		Other Postretirement Benefits	
	12/31/2019	12/31/2018	**12/31/2019**	12/31/2018
1. Equity Securities	**23%**	23%	**100%**	100%
2. Debt Securities	**77%**	77%	**—%**	—%
3. Total	**100%**	100%	**100%**	100%

In accordance with fair value guidance, we applied the following fair value hierarchy in order to measure fair value of our benefit plan assets:

- ➔ Level 1 — Quoted prices for identical instruments in active markets that we can access. Financial assets using Level 1 inputs include equity securities, mutual funds, money market funds, certain U.S. Treasury securities and exchange traded funds ("ETFs").
- ➔ Level 2 — Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and inputs, other than quoted prices, that are observable in the marketplace for the instrument. The observable inputs are used in valuation models to calculate the fair value of the instruments. Financial assets using Level 2 inputs include certain municipal, corporate and foreign bonds, obligations of U.S. government corporations and agencies, and pooled equity accounts.

To determine the fair value of securities in Level 1 and Level 2 of the fair value hierarchy, independent pricing sources have been used. One price is provided per security based on observable market data. To ensure securities are appropriately classified in the fair value hierarchy, we review the pricing techniques and methodologies of the independent pricing sources and believe that their policies adequately consider market activity, either based on specific transactions for the issue valued or based on modeling of securities with similar credit quality, duration, yield and structure that were recently traded. A variety of inputs are used by the independent pricing sources including benchmark yields, reported trades, non-binding broker/dealer quotes, issuer spreads, two sided markets, benchmark securities, bids, offers and reference data including market research publications. Inputs may be weighted differently for any security, and not all inputs are used for each security evaluation. Market indicators, industry and economic events are also considered. This information is evaluated using a multidimensional pricing model. In addition, on a quarterly basis, we perform quality controls over values received from the pricing source (the "Trustee") which include comparing values to other independent pricing sources. In addition, we review annually the Trustee's auditor's report on internal controls in order to determine that their controls around valuing securities are operating effectively. We have not made any adjustments to the prices obtained from the independent sources.

Tables 11.10a and 11.10b set forth by level, within the fair value hierarchy, the pension plan assets and related accrued investment income at fair value as of December 31, 2019 and 2018. There were no securities that used Level 3 inputs.

Pension plan assets at fair value as of December 31, 2019

Table 11.10a

(In thousands)	**Level 1**	**Level 2**	**Total**
Domestic Mutual Funds	**$ 7,325**	**$ —**	**$ 7,325**
Corporate Bonds	**—**	**203,684**	**203,684**
U.S. Government Securities	**32,166**	**2,511**	**34,677**
Municipal Bonds	**—**	**38,998**	**38,998**
Foreign Bonds	**—**	**34,024**	**34,024**
ETFs	**—**	**—**	**—**
Pooled Equity Accounts	**—**	**83,983**	**83,983**
Total Assets at fair value	**$ 39,491**	**$ 363,200**	**$ 402,691**

Pension plan assets at fair value as of December 31, 2018

Table 11.10b

(In thousands)	Level 1	Level 2	Total
Domestic Mutual Funds	$ 13,744	$ —	$ 13,744
Corporate Bonds	—	181,363	181,363
U.S. Government Securities	19,904	1,324	21,228
Municipal Bonds	—	43,424	43,424
Foreign Bonds	—	30,113	30,113
ETFs	5,241	—	5,241
Pooled Equity Accounts	—	64,606	64,606
Total Assets at fair value	$ 38,889	$ 320,830	$ 359,719

The pension plan has implemented a strategy to reduce risk through the use of a targeted funded ratio. The liability driven component is key to the asset allocation. The liability driven component seeks to align the duration of the fixed income asset allocation with the expected duration of the plan liabilities or benefit payments. Overall asset allocation is dynamic and specifies target allocation weights and ranges based on the funded status.

An improvement in funded status results in the de-risking of the portfolio, allocating more funds to fixed income and less to equity. A decline in funded status would result in a higher allocation to equity. The maximum equity allocation is 40%.

The equity investments use combinations of mutual funds, ETFs, and pooled equity account structures focused on the following strategies:

Strategy	Objective	Investment types
Return seeking growth	Funded ratio improvement over the long term	• Global quality growth • Global low volatility
Return seeking bridge	Downside protection in the event of a declining equity market	• Enduring asset • Durable company

The fixed income objective is to preserve capital and to provide monthly cash flows for the payment of plan liabilities. Fixed income investments can include government, government agency, corporate, mortgage-backed, asset-backed, and municipal securities, and other classes of bonds. The duration of the fixed income portfolio has an objective of being within one year of the duration of the accumulated benefit obligation. The fixed income investments have an objective of a weighted average credit of A3/A-/A- by Moody's, S&P, and Fitch, respectively.

Tables 11.11a and 11.11b set forth the other postretirement benefits plan assets at fair value as of December 31, 2019 and 2018. All are Level 1 assets.

Other postretirement benefits plan assets at fair value as of December 31, 2019

Table 11.11a

(In thousands)	**Level 1**	**Total**
Domestic Mutual Funds	**$ 77,640**	**$ 77,640**
International Mutual Funds	**21,950**	**21,950**
Total Assets at fair value	**$ 99,590**	**$ 99,590**

Other postretirement benefits plan assets at fair value as of December 31, 2018

Table 11.11b

(In thousands)	Level 1	Total
Domestic Mutual Funds	$ 60,405	$ 60,405
International Mutual Funds	17,357	17,357
Total Assets at fair value	$ 77,762	$ 77,762

Our postretirement plan portfolio is designed to achieve the following objectives over each market cycle and for at least 5 years:

- Total return should exceed growth in the Consumer Price Index by 5.75% annually
- Achieve competitive investment results

The primary focus in developing asset allocation ranges for the portfolio is the assessment of the portfolio's investment objectives and the level of risk that is acceptable to obtain those objectives. To achieve these objectives the minimum and maximum allocation ranges for fixed income securities and equity securities are:

	Minimum	Maximum
Equities (long only)	70%	100%
Real estate	0%	15%
Commodities	0%	10%
Fixed income/Cash	0%	10%

Given the long term nature of this portfolio and the lack of any immediate need for significant cash flow, it is anticipated that the equity investments will consist of growth stocks and will typically be at the higher end of the allocation ranges above.

Investment in international mutual funds is limited to a maximum of 30% of the equity range. The allocation as of December 31, 2019 included 3% that was primarily invested in equity securities of emerging market countries and another 19% was invested in securities of companies primarily based in Europe and the Pacific Basin.

Tables 11.12 and 11.13 show the current and estimated future contributions and benefit payments.

Company contributions

Table 11.12

(In thousands)	Pension and Supplemental Executive Retirement Plans **12/31/2019**	Other Postretirement Benefits **12/31/2019**
Company Contributions for the Year Ending:		
1. Current	**$ 10,205**	**$ —**
2. Current + 1	**12,350**	**—**

Benefits payments - total

Table 11.13

(In thousands)	Pension and Supplemental Executive Retirement Plans 12/31/2019	Other Postretirement Benefits 12/31/2019
Actual Benefit Payments for the Year Ending:		
1. Current	**$ 33,934**	**$ 989**
Expected Benefit Payments for the Year Ending:		
2. Current + 1	**34,943**	**1,600**
3. Current + 2	**31,008**	**1,847**
4. Current + 3	**30,981**	**2,087**
5. Current + 4	**31,175**	**2,254**
6. Current + 5	**30,547**	**2,367**
7. Current + 6 - 10	**141,768**	**11,874**

HEALTH CARE SENSITIVITIES

Assumed health care cost trend rates have a significant effect on the amounts reported for the other postretirement benefits plan. A one percentage point change in the health care trend rate assumption would have the following effects on other postretirement benefits:

Health care trend rate assumption

Table 11.14

(In thousands)	1-Percentage Point Increase	1-Percentage Point Decrease
Effect on total service and interest cost components	$ 380	$ (328)
Effect on postretirement benefit obligation	2,528	(2,239)

PROFIT SHARING AND 401(K)

We have a profit sharing and 401(k) savings plan for employees. At the discretion of the Board of Directors, we may make a contribution to the plan of up to 5% of each participant's eligible compensation. We provide a matching 401(k) savings contribution for employees of 100% up to the first 4% contributed. We recognized expenses related to these plans of $7.4 million, $6.0 million and $6.0 million in 2019, 2018 and 2017, respectively.

NOTE 12 Income Taxes

Net deferred tax assets and liabilities as of December 31, 2019 and 2018 are as follows:

Deferred tax assets and liabilities

Table 12.1

(In thousands)	2019	2018
Total deferred tax assets	**$ 63,533**	$ 83,082
Total deferred tax liabilities	**(57,791)**	(13,898)
Net deferred tax asset	**$ 5,742**	$ 69,184

Table 12.2 includes the components of the net deferred tax asset as of December 31, 2019 and 2018.

Deferred tax components

Table 12.2

(In thousands)	2019	2018
Unearned premium reserves	**$ 30,487**	$ 31,808
Benefit plans	**(10,790)**	(5,047)
Loss reserves	**2,175**	3,113
Unrealized (appreciation) depreciation in investments	**(36,822)**	9,407
Mortgage investments	**8,359**	8,307
Deferred compensation	**9,270**	8,662
AMT credit carryforward	**8,303**	17,521
Other, net	**(5,240)**	(4,587)
Net deferred tax asset	**$ 5,742**	$ 69,184

We used the remaining balance of our Federal net operating loss carryforward to offset taxable income during 2018. We believe that all gross deferred tax assets at December 31, 2018 and 2019 are fully realizable and no valuation allowance has been established.

Table 12.3 summarizes the components of the provision for (benefit from) income taxes:

Provision for (benefit from) income taxes

Table 12.3

(In thousands)	2019	2018	2017
Current Federal	**$ 162,911**	$ (16,272)	$ 73,348
Deferred Federal	**11,860**	185,598	351,677
Other	**(557)**	4,727	3,710
Provision for income taxes	**$ 174,214**	$ 174,053	$ 428,735

Our income tax expense for 2017 reflects the remeasurement of our net deferred tax assets to reflect the lower corporate tax rate of 21% under the Tax Act. As a result of the lower tax rate, we recorded a decrease to our net deferred tax assets of $133 million with a corresponding increase to our deferred income tax expense for the year ended December 31, 2017.

Current federal income tax payments were $158.3 million, $12.2 million, and $22.0 million in 2019, 2018 and 2017, respectively. At December 31, 2019 we owned $176.0 million of tax and loss bonds.

Table 12.6 reconciles the federal statutory income tax rate to our effective tax provision rate.

Effective tax rate reconciliation

Table 12.6

	2019	2018	2017
Federal statutory income tax rate	**21.0 %**	21.0 %	35.0 %
Additional income tax provision (benefit) related to the rate decrease included in the Tax Act	**— %**	— %	17.0 %
Additional income tax provision (benefit) related to IRS litigation	**— %**	(0.3)%	3.7 %
Tax exempt municipal bond interest	**(0.6)%**	(0.7)%	(1.4)%
Other, net	**0.1 %**	0.6 %	0.4 %
Effective tax rate	**20.5 %**	20.6 %	54.7 %

As previously disclosed, the Internal Revenue Service ("IRS") completed examinations of our federal income tax returns for the years 2000 through 2007 and issued proposed assessments for taxes, interest and penalties related to our treatment of the flow-through income and loss from an investment in a portfolio of residual interests of Real Estate Mortgage Investment Conduits ("REMICs").

In 2018, we finalized an agreement with the IRS to settle all issues in the examinations and related U.S. Tax Court case. As a result of our settlement, we made federal tax and interest payments of $14.8 million during 2018. We also made state tax and interest payments of $36.8 million during 2018. The impact of the agreed upon settlement was previously reflected in our consolidated statements of operations.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is shown in table 12.7.

Unrecognized tax benefits reconciliation

Table 12.7

(In thousands)	2018	2017
Balance at beginning of year	$ 142,821	$ 108,245
Additions for tax positions of prior years	—	35,003
Reductions for tax positions of prior years	(3,070)	(427)
Settlements	(139,751)	—
Balance at end of year	$ —	$ 142,821

We have no unrecognized tax benefits at December 31, 2018 and December 31, 2019. We have not recorded any uncertain tax positions during 2019. We recognize interest accrued and penalties related to unrecognized tax benefits in income taxes. The statute of limitations related to the consolidated federal income tax return is closed for all years prior to 2015.

NOTE 13 Shareholders' Equity

CHANGE IN ACCOUNTING PRINCIPLE

As of January 1, 2018, the updated guidance of *"Recognition and Measurement of Financial Assets and Financial Liabilities"* became effective. The application of this guidance resulted in an immaterial cumulative effect adjustment to our 2018 beginning accumulated other comprehensive (loss) income and retained earnings to recognize unrealized gains on equity securities.

As of January 1, 2017, we adopted the updated guidance of *"Improvements to Employee Share-Based Compensation Accounting."* The adoption of this guidance resulted in an immaterial cumulative effect adjustment to our 2017 beginning retained earnings. For the year ending December 31, 2017, we adopted the updated guidance of *"Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income."* The adoption of this guidance resulted in a $10.4 million reclassification from accumulated other comprehensive loss to retained earnings in the fourth quarter of 2017.

SHARE REPURCHASE PROGRAM

During 2019 we repurchased approximately 8.7 million shares of our common stock at a weighted average cost per share of $13.13, which included commissions. We may repurchase an additional $111 million of our common stock through the end of 2020 under share repurchase programs approved by our Board of Directors in 2019. We received authorization in the first quarter of 2020 to repurchase an additional $300 million of our common stock through the end of 2021.

During 2018, we repurchased approximately 16.0 million shares of our common stock at a weighted average cost per share of $10.95, which included commissions. As of December 31, 2018, the authorized share repurchase program had approximately $25 million remaining.

Repurchases may be made from time to time on the open market (including through 10b5-1 plans) or through privately negotiated transactions. The repurchase program may be suspended for periods or discontinued at any time.

Cash dividends

In September 2019 and November 2019, we paid a quarterly cash dividend of $0.06 per share to shareholders which totaled $42 million. On January 28, 2020, the Board of Directors declared a quarterly cash dividend to holders of the company's common stock of $0.06 per share payable on February 28, 2020, to shareholders of record at the close of business on February 11, 2020.

2017 CAPITAL TRANSACTIONS

2% Notes

In 2017, holders of approximately $202.5 million of the outstanding principal amount of our 2% Notes exercised their rights to convert their notes into shares of our common stock resulting in the delivery of approximately 29.1 million shares of our common stock to the holders. The transactions included the delivery of approximately 18.7 million from our treasury stock and an additional 10.4 million of newly issued shares. Shareholders' equity was increased by the carrying value of the notes at the time of conversion.

NOTE 14 Statutory Information

STATUTORY ACCOUNTING PRINCIPLES

The statutory financial statements of our insurance companies are presented on the basis of accounting principles prescribed, or practices permitted, by the Office of the Commissioner of Insurance of the State of Wisconsin (the "OCI"), which has adopted the National Association of Insurance Commissioners ("NAIC") Statements of Statutory Accounting Principles ("SSAP") as the basis of its statutory accounting principles. In converting from statutory to GAAP, typical adjustments include deferral of policy acquisition costs, the inclusion of net unrealized holding gains or losses in shareholders' equity relating to fixed income securities, and the inclusion of statutory non-admitted assets.

In addition to the typical adjustments from statutory to GAAP, mortgage insurance companies are required to maintain contingency loss reserves equal to 50% of premiums earned under SSAP and principles prescribed by the OCI, and such amounts cannot be withdrawn for a period of ten years except as permitted by insurance regulations. With regulatory approval, a mortgage guaranty insurance company may make early withdrawals from the contingency reserve when incurred losses exceed 35% of net premiums earned in a calendar year. For the year ended 2019, MGIC's losses incurred were 12% of net premiums earned. Changes in contingency loss reserves impact the statutory statement of operations. Contingency loss reserves are not reflected as liabilities under GAAP and changes in contingency loss reserves do not impact the GAAP statements of operations.

As a mortgage guaranty insurer, we are eligible for a tax deduction, subject to certain limitations, under Section 832(e) of the IRC for amounts required by state law or regulation to be set aside in statutory contingency reserves. The deduction is allowed only to the extent that we purchase tax and loss bonds ("T&L Bonds") in an amount equal to the tax benefit derived from deducting any portion of our statutory contingency reserves. Under statutory accounting practices, purchases of T&L Bonds are accounted for as investments. Under GAAP, purchases of T&L Bonds are accounted for as a payment of current taxes.

The statutory net income loss, policyholders' surplus and contingency reserve liability of the insurance subsidiaries of our holding company are show in table 14.1 below. The surplus amounts included in the following table are the combined policyholders' surplus of our insurance operations as utilized in our risk-to-capital calculations.

Statutory financial information of holding company and insurance subsidiaries

Table 14.1

	As of and for the Years Ended December 31,		
(In thousands)	**2019**	2018	2017
Statutory net income	**$ 305,857**	$ 375,484	$ 310,776
Statutory policyholders' surplus	**1,619,069**	1,683,058	1,622,115
Contingency reserve	**3,021,055**	2,442,996	1,896,701

For the years ended December 31, 2019, 2018, and 2017 there were no surplus contributions made to MGIC or distributions from other insurance subsidiaries to us. Dividends paid by MGIC are shown in table 14.2 below.

Surplus contributions and dividends of insurance subsidiaries

Table 14.2

	Years Ended December 31,		
(In thousands)	**2019**	2018	2017
Dividends paid by MGIC to the parent company	**$ 280,000**	220,000	140,000

STATUTORY CAPITAL REQUIREMENTS

The insurance laws of 16 jurisdictions, including Wisconsin, our domiciliary state, require a mortgage insurer to maintain a minimum amount of statutory capital relative to the RIF (or a similar measure) in order for the mortgage insurer to continue to write new business. We refer to these requirements as the “State Capital Requirements” and, together with the GSE Financial Requirements, the “Financial Requirements.” While they vary among jurisdictions, the most common State Capital Requirements allow for a maximum risk-to-capital ratio of 25 to 1. A risk-to-capital ratio will increase if (i) the percentage decrease in capital exceeds the percentage decrease in insured risk, or (ii) the percentage increase in capital is less than the percentage increase in insured risk. Wisconsin does not regulate capital by using a risk-to-capital measure but instead requires a minimum policyholder position ("MPP"). The “policyholder position” of a mortgage insurer is its net worth or surplus, contingency reserve, and a portion of the reserves for unearned premiums.

At December 31, 2019, MGIC’s risk-to-capital ratio was 9.7 to 1, below the maximum allowed by the jurisdictions with State Capital Requirements and its policyholder position was $3.0 billion above the required MPP of $1.7 billion. The calculation of our risk-to-capital ratio and MPP reflect credit for the risk ceded under our QSR Transactions and Home Re Transactions with a group of unaffiliated reinsurers. It is possible that under the revised State Capital Requirements discussed below, MGIC will not be allowed full credit for the risk ceded to the reinsurers. If MGIC is not allowed an agreed level of credit under either the State Capital Requirements or the PMIERs, MGIC may terminate the reinsurance agreements, without penalty. At this time, we expect MGIC to continue to comply with the current State Capital Requirements; however, you should read the rest of these financial statement footnotes for information about matters that could negatively affect such compliance.

At December 31, 2019, the risk-to-capital ratio of our combined insurance operations (which includes a reinsurance affiliate) was 9.6 to 1. In the first quarter of 2020, we received the appropriate approvals for MGIC to pay our holding company a special dividend of $320 million. The $320 million special dividend will reduce the statutory policyholder's position of MGIC, which will result in an increase to the risk-to-capital.

The NAIC has previously announced plans to revise the minimum capital and surplus requirements for mortgage insurers that are provided for in its Mortgage Guaranty Insurance Model Act. In December 2019, a working group of state regulators released an exposure draft of a revised Mortgage Guaranty Insurance Model Act and a risk-based capital framework to establish capital requirements for mortgage insurers, although no date has been established by which the NAIC must propose revisions to the capital requirements and certain items have not yet been completely addressed by the framework, including the treatment of ceded risk and minimum capital floors. Currently we believe that the PMIERs contain more restrictive capital requirements than the draft Mortgage Guaranty Insurance Model Act in most circumstances.

While MGIC currently meets the State Capital Requirements of Wisconsin and all other jurisdictions, it could be prevented from writing new business in the future in all jurisdictions if it fails to meet the State Capital Requirements of Wisconsin, or it could be prevented from writing new business in a particular jurisdiction if it fails to meet the State Capital Requirements of that jurisdiction and in each case MGIC does not obtain a waiver of such requirements. It is possible that regulatory action by one or more jurisdictions, including those that do not have specific State Capital Requirements, may prevent MGIC from continuing to write new insurance in such jurisdictions. If we are unable to write business in all jurisdictions, lenders may be unwilling to procure insurance from us anywhere. In addition, a lender's assessment of the future ability of our insurance operations to meet the State Capital Requirements or the PMIERs may affect its willingness to procure insurance from us. A possible future failure by MGIC to meet the State Capital Requirements or the PMIERs will not necessarily mean that MGIC lacks sufficient resources to pay claims on its insurance liabilities. While we believe MGIC has sufficient claims paying resources to meet its claim obligations on its IIF on a timely basis, you should read the rest of these financial statement footnotes for information about matters that could negatively affect MGIC's claims paying resources.

DIVIDEND RESTRICTIONS

In 2019, MGIC paid a total of $280 million in dividends to our holding company. We received the appropriate approvals for MGIC to pay our holding company, in the first quarter of 2020, a special dividend of $320 million and a quarterly dividend of $70 million. We expect MGIC to continue to pay dividends of at least $280 million per year.

MGIC is subject to statutory regulations as to payment of dividends. The maximum amount of dividends that MGIC may pay in any twelve-month period without regulatory approval by the OCI is the lesser of adjusted statutory net income or 10% of statutory policyholders' surplus as of the preceding calendar year end. Adjusted statutory net income is defined for this purpose to be the greater of statutory net income, net of realized investment gains, for the calendar year preceding the date of the dividend or statutory net income, net of realized investment gains, for the three calendar years preceding the date of the dividend less dividends paid within the first two of the preceding three calendar years. Before making any dividend payments in 2020, we will notify the OCI to ensure it does not object.

The OCI recognizes only statutory accounting principles prescribed, or practices permitted, by the State of Wisconsin for determining and reporting the financial condition and results of operations of an insurance company. The OCI has adopted certain prescribed accounting practices that differ from those found in other states. Specifically, Wisconsin domiciled companies record changes in the contingency reserves through the income statement as a change in underwriting deduction. As a result, in periods in which MGIC is increasing contingency reserves, statutory net income is reduced. For the year ended December 31, 2019, MGIC's increase in contingency reserves was $556 million and statutory net income was $273 million. As of December 31, 2019, MGIC's statutory policyholders' surplus was $1,619 million.

NOTE 15 Share-based Compensation Plans

We have certain share-based compensation plans. Under the fair value method, compensation cost is measured at the grant date based on the fair value of the award and is recognized over the service period which generally corresponds to the vesting period. Awards under our plans generally vest over periods ranging from one to three years.

We have an omnibus incentive plan that was adopted on April 23, 2015. The purpose of the 2015 plan is to motivate and incentive performance by, and to retain the services of, key employees and non-employee directors through receipt of equity-based and other incentive awards under the plan. The maximum number of shares of stock that can be awarded under the 2015 plan is 10.0 million. Awards issued under the plan that are subsequently forfeited will not count against the limit on the maximum number of shares that may be issued under the plan. The 2015 plan provides for the award of stock options, stock appreciation rights, restricted stock and restricted stock units, as well as cash incentive awards. No awards may be granted after April 23, 2025 under the 2015 plan. The vesting provisions of options, restricted stock and restricted stock units are determined at the time of grant. At December 31, 2019, 3.4 million shares were available for future grant under the 2015 plan.

The compensation cost that has been charged against income for share-based plans was $18.9 million, $20.9 million, and $14.9 million for the years ended December 31, 2019, 2018 and 2017, respectively. The related income tax benefit recognized for share-based plans was $2.7 million, $3.0 million, and $5.2 million for the years ended December 31, 2019, 2018, and 2017, respectively.

Table 15.1 summarizes restricted stock or restricted stock unit (collectively called "restricted stock") activity during 2019.

Restricted stock

Table 15.1

	Weighted Average Grant Date Fair Market Value	Shares
Restricted stock outstanding at December 31, 2018	$ 12.27	3,583,506
Granted	11.92	2,002,500
Vested	9.37	(1,067,890)
Forfeited	13.67	(367,722)
Restricted stock outstanding at December 31, 2019	**$ 12.81**	**4,150,394**

At December 31, 2019, the 4.2 million shares of restricted stock outstanding consisted of 3.2 million shares that are subject to performance conditions ("performance shares") and 1.0 million shares that are subject only to service conditions ("time vested shares"). The weighted-average grant date fair value of restricted stock granted during 2018 and 2017 was $15.69 and $10.41, respectively. The fair value of restricted stock granted is the closing price of the common stock on the New York Stock Exchange on the date of grant or previous trading day if the Exchange is closed on the date of grant. The total fair value of restricted stock vested during 2019, 2018 and 2017 was $13.7 million, $19.1 million, and $15.3 million, respectively.

As of December 31, 2019, there was $30.7 million of total unrecognized compensation cost related to non-vested share-based compensation agreements granted under the plans. Of this total, $20.2 million of unrecognized compensation costs relate to performance shares and $10.5 million relates to time vested shares. A portion of the unrecognized costs associated with the performance shares may or may not be recognized in future periods, depending upon whether or not the performance and service conditions are met. The cost associated with the time vested shares is expected to be recognized over a weighted-average period of 1.8 years.

NOTE 16 Leases

We lease certain office space as well as data processing equipment and autos under operating leases that expire during the next four years. Generally, rental payments are fixed.

Table 16.1 shows minimum the future operating lease payments as of December 31, 2019.

Minimum future operating lease payments

Table 16.1 *(In thousands)*	Amount
2020	$ **1,204**
2021	**588**
2022	**380**
2023	**83**
2024 and thereafter	**—**
Total	$ **2,255**

Table 16.2 shows minimum the future operating lease payments as of December 31, 2018.

Minimum future operating lease payments

Table 16.2 *(In thousands)*	Amount
2019	$ **1,406**
2020	**1,069**
2021	**371**
2022	**161**
2023 and thereafter	**—**
Total	$ **3,007**

Total lease expense under operating leases was $2.1 million in 2019, $1.9 million in 2018, and $2.0 million in 2017.

NOTE 17 Litigation and Contingencies

Before paying an insurance claim, we review the loan and servicing files to determine the appropriateness of the claim amount. When reviewing the files, we may determine that we have the right to rescind coverage on the loan. We refer to insurance rescissions and denials of claims collectively as "rescissions" and variations of that term. In addition, our insurance policies generally provide that we can reduce or deny a claim if the servicer did not comply with its obligations under our insurance policy. We call such reduction of claims "curtailments." In recent quarters, an immaterial percentage of claims received in a quarter have been resolved by rescissions. In 2019 and 2018 , curtailments reduced our average claim paid by approximately 5.0% and 5.8%, respectively.

Our loss reserving methodology incorporates our estimates of future rescissions, curtailments, and reversals of rescissions and curtailments. A variance between ultimate actual rescission, curtailment, and reversal rates and our estimates, as a result of the outcome of litigation, settlements or other factors, could materially affect our losses.

When the insured disputes our right to rescind coverage or curtail claims, we generally engage in discussions in an attempt to settle the dispute. If we are unable to reach a settlement, the outcome of a dispute ultimately may be determined by legal proceedings.

Under ASC 450-20, until a loss associated with settlement discussions or legal proceedings becomes probable and can be reasonably estimated, we consider our claim payment or rescission resolved for financial reporting purposes and do not accrue an estimated loss. When we determine that a loss is probable and can be reasonably estimated, we record our best estimate of our probable loss. In those cases, until settlement negotiations or legal proceedings are concluded (including the receipt of any necessary GSE approvals), it is reasonably possible that we will record an additional loss. In the fourth quarter of 2019, the agreement for which we had recorded a probable loss of $23.5 million, received necessary GSE approvals. There was no additional loss recognized as a result of entering into the agreement, as the settlement amount was consistent with our original estimate of the probable loss. We are currently involved in discussions and/or proceedings with insureds with respect to our claims paying practices. Although it is reasonably possible that when all of these matters are resolved we will not prevail in all cases, we are unable to make a reasonable estimate or range of estimates of the potential liability. We estimate the maximum exposure associated with matters where a loss is reasonably possible to be approximately $46 million. This estimate of maximum exposure is based upon currently available information; is subject to significant judgment, numerous assumptions and known and unknown uncertainties; will include an amount for matters for which we have recorded a probable loss until such matters are concluded; will include different matters from time to time; and does not include interest or consequential or exemplary damages.

Mortgage insurers, including MGIC, have in the past been involved in litigation and regulatory actions related to alleged violations of the anti-referral fee provisions of the Real Estate Settlement Procedures Act ("RESPA") and the notice provisions of the Fair Credit Reporting Act ("FCRA"). While these proceedings in the aggregate did not result in material liability for MGIC, there can be no assurance that the outcome of future proceedings, if any, under these laws would not have a material adverse effect on us. To the extent that we are construed to make independent credit decisions in connection with our contract underwriting activities, we also could be subject to increased regulatory requirements under the Equal Credit Opportunity Act (“EOCA”), FCRA, and other laws. Under ECOA, examination may also be made of whether a mortgage insurer’s underwriting decisions have a disparate impact on persons belonging to a protected class in violation of the law.

Through a non-insurance subsidiary, we utilize our underwriting skills to provide an outsourced underwriting service to our customers known as contract underwriting. As part of the contract underwriting activities, that subsidiary is responsible for the quality of the underwriting decisions in accordance with the terms of the contract underwriting agreements with customers. That subsidiary may be required to provide certain remedies to its customers if certain standards relating to the quality of our underwriting work are not met, and we have an established reserve for such future obligations. Claims for remedies may be made a number of years after the underwriting work was performed. The related contract underwriting remedy expense for each of the years ended December 31, 2019, 2018, and 2017, was immaterial to our consolidated financial statements.

In addition to the matters described above, we are involved in other legal proceedings in the ordinary course of business. In our opinion, based on the facts known at this time, the ultimate resolution of these ordinary course legal proceedings will not have a material adverse effect on our financial position or consolidated results of operations.

NOTE 18 Unaudited Quarterly Financial Data

Unaudited quarterly financial data - current year:

Table: 18.1a

2019:	Quarter				**Full**
(In thousands, except per share data)	First	Second	Third	Fourth	**Year**
Net premiums earned	$ 249,762	$ 247,102	$ 267,857	$ 266,267	**$ 1,030,988**
Investment income, net of expenses	40,585	42,423	42,715	41,322	**167,045**
Realized (losses) gains	(526)	307	4,205	1,320	**5,306**
Other revenue	1,830	2,485	3,606	2,717	**10,638**
Loss incurred, net	39,064	21,836	33,985	23,690	**118,575**
Underwriting and other expenses, net	61,650	59,270	61,278	65,227	**247,425**
Provision for income tax	38,996	43,433	46,186	45,599	**174,214**
Net income	151,941	167,778	176,934	177,110	**673,763**
Income per share [(a)] [(b)]:					
Basic	0.43	0.47	0.50	0.51	**1.91**
Diluted	0.42	0.46	0.49	0.49	**1.85**

Unaudited quarterly financial statements - prior year:

Table: 18.1b

2018:	Quarter				Full
(In thousands, except per share data)	First	Second	Third	Fourth	Year
Net premiums earned	$ 232,107	$ 246,964	$ 250,426	$ 245,665	$ 975,162
Investment income, net of expenses	32,121	34,502	36,380	38,328	141,331
Realized gains (losses)	(329)	(1,897)	1,114	(241)	(1,353)
Other revenue	1,871	2,431	2,525	1,881	8,708
Loss incurred, net	23,850	(13,455)	(1,518)	27,685	36,562
Underwriting and other expenses, net	61,895	57,933	60,069	63,239	243,136
Provision for income tax	36,388	50,708	49,994	36,963	174,053
Net income	143,637	186,814	181,900	157,746	670,097
Income per share [(a)] [(b)]:					
Basic	0.39	0.51	0.50	0.44	1.83
Diluted	0.38	0.49	0.49	0.43	1.78

(a) Due to the use of weighted average shares outstanding when calculating earnings per share, the sum of the quarterly per share data may not equal the per share data for the year.

(b) In periods where convertible debt instruments are dilutive to earnings per share the "if-converted" method of computing diluted EPS requires an interest expense adjustment, net of tax, to net income available to shareholders. See Note 4 – "Earnings Per Share" for further discussion on our calculation of diluted EPS.

Directors

MGIC Investment Corporation

Daniel A. Arrigoni
Former President & Chief Executive Officer
U.S. Bank Home Mortgage Corp.
Home loan originator and servicer

Cassandra C. Carr
Consultant; Former Global Vice Chair of Talent
Hill+Knowlton Strategies
Public relations consulting firm

C. Edward Chaplin
Former President & CFO
MBIA Inc.
Provider of financial guarantee insurance

Curt S. Culver
Chairman
Former Chief Executive Officer
MGIC Investment Corporation

Jay C. Hartzell
Dean
McCombs School of Business at the University of Texas at Austin

Timothy A. Holt
Former Senior Vice President & Chief Investment Officer
Aetna, Inc.
Diversified health care benefits company

Kenneth M. Jastrow, II
Corporate Director & Private Investor
Former Chairman & Chief Executive Officer
Temple-Inland Inc.
Paper & forest products company with financial services and real estate interests

Jodeen A. Kozlak
Founder and CEO
Kozlak Capital Partners, LLC
Former Senior Vice President of Human Resources
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Michael E. Lehman
Special Advisor to the Chancellor and Interim Chief Operating Officer of the School of Business
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Melissa B. Lora
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Timothy J. Mattke
Chief Executive Officer
MGIC Investment Corporation

Gary A. Poliner
Former President
Northwestern Mutual Life Ins. Co.
Financial services company

Sheryl L. Sculley
Former City Manager (CEO)
City of San Antonio

Mark M. Zandi
Chief Economist
Moody's Analytics, Inc.
Risk measurement and management firm

Officers

MGIC Investment Corporation

Chief Executive Officer
Timothy J. Mattke

President and Chief Operating Officer
Salvatore A. Miosi

Executive Vice Presidents
Nathaniel H. Colson
Chief Financial Officer

Paula C. Maggio
General Counsel and Secretary

Vice Presidents
Heidi A. Heyrman
Assistant Secretary

Lisa M. Pendergast
Treasurer

Brian M. Remington
Assistant Secretary

Julie K. Sperber
Controller & Chief Accounting Officer

Martha F. Tsuchihashi
Assistant Secretary

Officers

Mortgage Guaranty Insurance Corporation

Chief Executive Officer
Timothy J. Mattke

President and Chief Operating Officer
Salvatore A. Miosi

Executive Vice Presidents
Nathaniel H. Colson
Chief Financial Officer

James J. Hughes
Sales and Business Development

Paula C. Maggio
General Counsel and Secretary

Steven M. Thompson
Chief Risk Officer

Senior Vice Presidents
Robert J. Candelmo
Chief Information Officer

Sean A. Dilweg
Government Relations

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Vice Presidents
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Jane S. Coleman
National Accounts

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Geoffrey F. Cooper
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Margaret M. Crowley
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Dean D. Dardzinski
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Managing Director

Hans F. DeSelms
Risk, Loss Forecasting & Analytics

Mary L. Elkins
Systems Development

Heidi A. Heyrman
Regulatory Relations, Assistant General Counsel and Assistant Secretary

Dianna L. Higgins
Internal Audit

Michael E. Jacobson
Product Strategy

Mark J. Krauter
National Accounts

Michael L. Kull
Managing Director

Elyse M. Mitchell
National Accounts

Stacey B. Murphy
Talent and Total Rewards

Jeffrey N. Nielsen
Financial Planning/Analysis

Lisa M. Pendergast
Treasurer & Investments

Christopher T. Perry
Sales

W. Todd Pittman
Managing Director

Tara E. Radmann
Business Automation

Brian M. Remington
Loss Mitigation, Assistant General Counsel and Assistant Secretary

David H. Schroeder
Claims & Policy Servicing

John R. Schroeder
Corporate Development

Bryan D. Specht
Underwriting & Customer Care

Julie K. Sperber
Controller and Chief Accounting Officer

Paul A. Spiroff
Finance

Jennifer M. Steffens
Credit Policy and Analytics

Martha F. Tsuchihashi
Securities Law, Assistant General Counsel and Assistant Secretary

Sean R. Valcamp
Chief Technology Officer

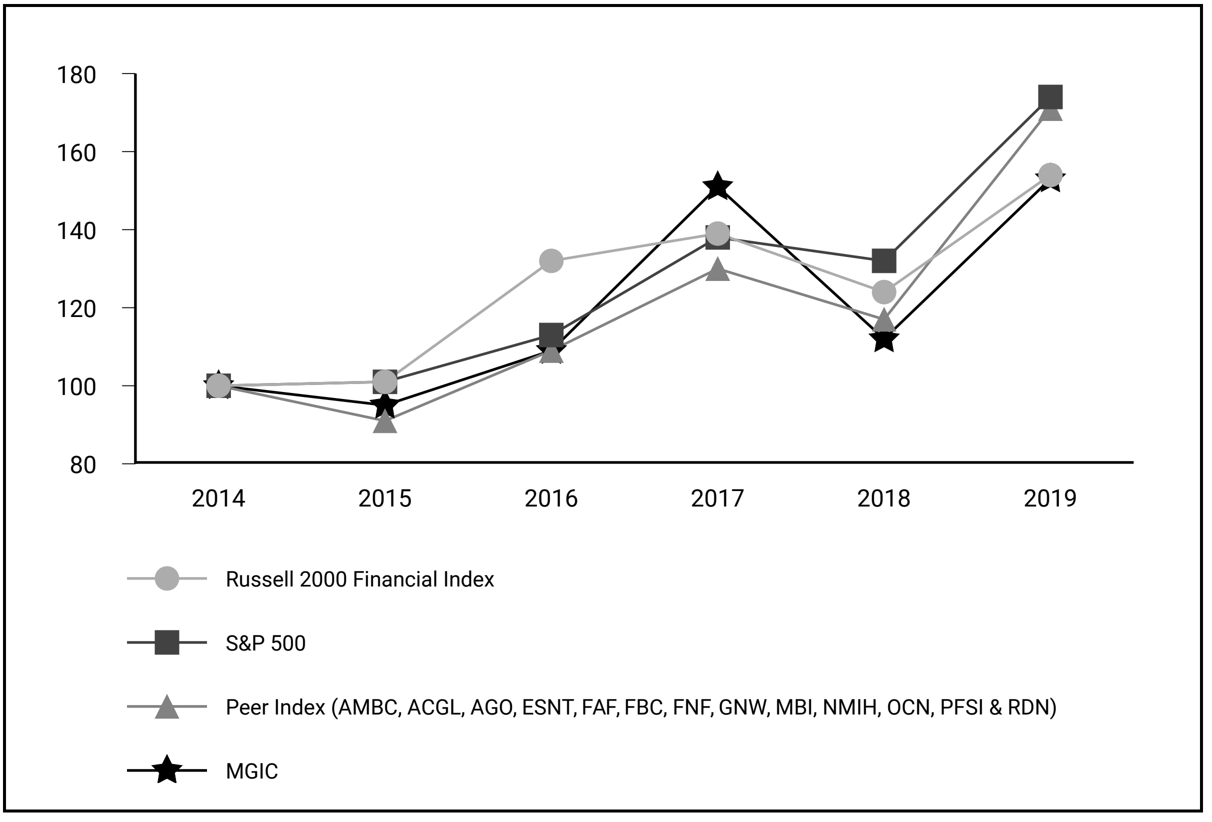
Kathleen E. Valenti
Chief Compliance Officer

Jerry L. Wormmeester
National Accounts

Performance Graph

The graph below compares the cumulative total return on (a) our Common Stock, (b) a composite peer group index selected by us, (c) the Russell 2000 Financial Services Index and (d) the S&P 500.

Our peer group index consists of the peers against which we analyzed our 2019 executive compensation: Ambac Financial Group, Inc., Arch Capital Group Ltd., Assured Guaranty Ltd., Essent Group Ltd., Fidelity National Financial Inc., First American Financial Corp., Flagstar Bancorp Inc., Genworth Financial Inc., MBIA Inc., NMI Holdings Inc., Ocwen Financial Corp., PennyMac Financial Services Inc. and Radian Group. We selected this peer group because it includes all of our direct competitors that were public companies in 2019 and whose mortgage insurance operations are a significant part of their overall business, financial guaranty insurers, and other financial services companies focused on the residential real estate industry that are believed to be potential competitors for executive talent.



	2014	2015	2016	2017	2018	2019
Russell 2000 Financial Index	100	101	132	139	124	154
S&P 500	100	101	113	138	132	174
Peer Index (AMBC, ACGL, AGO, ESNT, FAF, FBC, FNF, GNW, MBI, NMIH, OCN, PFSI, PHH & RDN)	100	91	109	130	117	171
MGIC	100	95	109	151	112	153

Shareholder Information

The Annual Meeting
The Annual Meeting of Shareholders of MGIC Investment Corporation will convene at 9 a.m. Central Time on April 23, 2020, at the Corporation's headquarters, 270 East Kilbourn Avenue, Milwaukee, Wisconsin.

10-K Report
Copies of the Annual Report on Form 10-K for the year ended December 31, 2019, filed with the Securities and Exchange Commission, are available without charge to shareholders on request from:

Secretary
MGIC Investment Corporation
P. O. Box 488
Milwaukee, WI 53201

The Annual Report on Form 10-K referred to above includes as exhibits certifications from the Company's Chief Executive Officer and Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act. Following the 2019 Annual Meeting of Shareholders, the Company's Chief Executive Officer submitted a Written Affirmation to the New York Stock Exchange that he was not aware of any violation by the Company of the corporate governance listing standards of Exchange.

Transfer Agent and Registrar
American Stock Transfer & Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219
800-937-5549

Corporate Headquarters
MGIC Plaza
270 East Kilbourn Avenue
Milwaukee, Wisconsin 53202

Mailing Address
P. O. Box 488
Milwaukee, Wisconsin 53201

Shareholder Services
(414) 347-6596

MGIC Stock
MGIC Investment Corporation Common Stock is listed on the New York Stock Exchange under the symbol MTG. At March 6, 2020, 340,860,286 shares of our common stock were entitled to vote.

The payment of dividends is subject to the discretion of our Board and will depend on many factors, including our operating results, financial condition and capital position. See Note 7 - "Debt" to our consolidated financial statements for dividend restrictions that apply when we elect to defer interest on our Convertible Junior Subordinated Debentures.

The Company is a holding company and the payment of dividends from its insurance subsidiaries is restricted by insurance regulations. For a discussion of these restrictions, see Note 14 - "Statutory Information, Dividend Restrictions" to our consolidated financial statements.

As of March 6, 2020, the number of shareholders of record was 242. In addition, we estimate that there are approximately 42,000 beneficial owners of shares held by brokers and fiduciaries.

MGIC Investment Corporation

MGIC Plaza
Milwaukee, WI 53202
mtg.mgic.com

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