

FORM 10-Q
UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

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

For the quarterly period ended September 30, 2019

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

For the transition period from _____ to _____

Commission file number 1-10816

MGIC
MGIC Investment Corporation

(Exact name of registrant as specified in its charter)

Wisconsin

(State or other jurisdiction of incorporation or organization)

39-1486475

(I.R.S. Employer Identification No.)

250 E. Kilbourn Avenue

Milwaukee, Wisconsin

(Address of principal executive offices)

53202

(Zip Code)

(414) 347-6480

(Registrant's telephone number, including area code)

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

Title of each class

Common stock

Trading Symbol

MTG

Name of each exchange on which registered

New York Stock Exchange

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

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

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company (Do not check if a smaller reporting company)

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: As of November 1, 2019, there were 348,709,277 shares of common stock of the registrant, par value \$1.00 per share, outstanding.

Forward Looking and Other Statements

All statements in this report that address events, developments or results that we expect or anticipate may occur in the future are “forward looking statements.” Forward looking statements consist of statements that relate to matters other than historical fact. In most cases, forward looking statements may be identified by words such as “believe,” “anticipate” or “expect,” or words of similar import. The risk factors referred to in “Forward Looking Statements and Risk Factors – Location of Risk Factors” in Management’s Discussion and Analysis of Financial Condition and Results of Operations below, may cause our actual results to differ materially from the results contemplated by forward looking statements that we may make. We are not undertaking any obligation to update any forward looking statements or other statements we may make 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 this document was filed with the Securities and Exchange Commission.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES

FORM 10-Q

FOR THE QUARTER ENDED SEPTEMBER 30, 2019

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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 investments

/ 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

/ 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

When referring to insurance or risk written or in force, "direct" means before giving effect to reinsurance

/ 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

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

Legacy book

Mortgage insurance policies written prior to 2009

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

MIC

MGIC Indemnity Corporation, a subsidiary of MGIC

Minimum Required Assets

The greater of \$400 million or the total of the minimum amount of Available Assets that must be held under the PMIERS based upon a percentage of RIF weighted by certain risk attributes

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

The 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

/ 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

/ 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 CFPB’s ability-to-repay rule under TILA. 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

/ 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

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

<i>(In thousands)</i>	Note	September 30, 2019	December 31, 2018
		(Unaudited)	
ASSETS			
Investment portfolio:	7 / 8		
Fixed income, available-for-sale, at fair value (amortized cost 2019 - \$5,473,893; 2018 - \$5,196,784)		\$ 5,660,992	\$ 5,151,987
Equity securities, at fair value (cost 2019 - \$17,205; 2018 - \$3,993)	2 / 7 / 8	17,360	3,932
Other invested assets, at cost	2 / 7 / 8	3,100	3,100
Total investment portfolio		5,681,452	5,159,019
Cash and cash equivalents		165,425	151,892
Restricted cash and cash equivalents		6,329	3,146
Accrued investment income		48,320	48,001
Reinsurance recoverable on loss reserves	4	19,566	33,328
Reinsurance recoverable on paid losses		1,573	2,948
Premiums receivable		51,804	55,090
Home office and equipment, net		50,540	51,734
Deferred insurance policy acquisition costs		18,010	17,888
Deferred income taxes, net		11,583	69,184
Other assets		92,149	85,572
Total assets		\$ 6,146,751	\$ 5,677,802
LIABILITIES AND SHAREHOLDERS' EQUITY			
Liabilities:			
Loss reserves	11	\$ 602,297	\$ 674,019
Unearned premiums		392,556	409,985
Federal Home Loan Bank advance	3	155,000	155,000
Senior notes	3	420,578	419,713
Convertible junior subordinated debentures	3	256,872	256,872
Other liabilities		159,831	180,322
Total liabilities		1,987,134	2,095,911
Contingencies	5		
Shareholders' equity:			
Common stock (one dollar par value, shares authorized 1,000,000; shares issued 2019 - 371,353; 2018 - 371,353; shares outstanding 2019 - 348,709; 2018 - 355,371)		371,353	371,353
Paid-in capital		1,864,973	1,862,536
Treasury stock at cost (shares 2019 - 22,644; 2018 - 15,982)		(263,196)	(175,059)
Accumulated other comprehensive income (loss), net of tax		63,782	(124,214)
Retained earnings		2,122,705	1,647,275
Total shareholders' equity		4,159,617	3,581,891
Total liabilities and shareholders' equity		\$ 6,146,751	\$ 5,677,802

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

(In thousands, except per share data)	Note	Three Months Ended September 30,		Nine Months Ended September 30,	
		2019	2018	2019	2018
Revenues:					
Premiums written:					
Direct		\$ 286,059	\$ 280,229	\$ 843,145	\$ 824,989
Assumed		1,793	(3,020)	4,405	(843)
Ceded	4	(28,438)	(25,326)	(100,257)	(79,921)
Net premiums written		259,414	251,883	747,293	744,225
Decrease (increase) in unearned premiums, net		8,443	(1,457)	17,427	(14,728)
Net premiums earned		267,857	250,426	764,720	729,497
Investment income, net of expenses		42,715	36,380	125,723	103,003
Net realized investment gains (losses)	7	4,205	1,114	3,986	(1,112)
Other revenue		3,606	2,525	7,921	6,827
Total revenues		318,383	290,445	902,350	838,215
Losses and expenses:					
Losses incurred, net	11	33,985	(1,518)	94,884	8,877
Amortization of deferred policy acquisition costs		3,142	3,156	8,380	8,573
Other underwriting and operating expenses, net		45,197	43,655	134,097	131,587
Interest expense		12,939	13,258	39,722	39,737
Total losses and expenses		95,263	58,551	277,083	188,774
Income before tax		223,120	231,894	625,267	649,441
Provision for income taxes		46,186	49,994	128,614	137,090
Net income		\$ 176,934	\$ 181,900	\$ 496,653	\$ 512,351
Earnings per share:					
Basic	6	\$ 0.50	\$ 0.50	\$ 1.40	\$ 1.40
Diluted	6	\$ 0.49	\$ 0.49	\$ 1.36	\$ 1.36
Weighted average common shares outstanding - basic	6	351,475	362,180	354,272	367,190
Weighted average common shares outstanding - diluted	6	372,575	382,905	375,266	387,765

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (Unaudited)

<i>(In thousands)</i>	Note	Three Months Ended September 30,		Nine Months Ended September 30,	
		2019	2018	2019	2018
Net income		\$ 176,934	\$ 181,900	\$ 496,653	\$ 512,351
Other comprehensive income (loss), net of tax:	9				
Change in unrealized investment gains and losses	7	31,372	(12,077)	183,197	(86,452)
Benefit plan adjustments		1,600	440	4,799	1,322
Other comprehensive income (loss), net of tax		32,972	(11,637)	187,996	(85,130)
Comprehensive income		\$ 209,906	\$ 170,263	\$ 684,649	\$ 427,221

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (Unaudited)

<i>(In thousands)</i>	Note	Three Months Ended September 30,		Nine Months Ended September 30,	
		2019	2018	2019	2018
Common stock					
Balance, beginning of period		\$ 371,353	\$ 371,348	\$ 371,353	\$ 370,567
Net common stock issued under share-based compensation plans		—	5	—	786
Balance, end of period		371,353	371,353	371,353	371,353
Paid-in capital					
Balance, beginning of period		1,860,578	1,852,251	1,862,536	1,850,582
Net common stock issued under share-based compensation plans		—	(63)	—	(8,917)
Reissuance of treasury stock, net under share-based compensation plans		(133)	—	(11,715)	—
Equity compensation		4,528	5,451	14,152	15,974
Balance, end of period		1,864,973	1,857,639	1,864,973	1,857,639
Treasury stock					
Balance, beginning of period		(194,070)	(100,059)	(175,059)	—
Reissuance of treasury stock, net under share-based compensation plans		59	—	5,989	—
Repurchase of common stock	12	(69,185)	—	(94,126)	(100,059)
Balance, end of period		(263,196)	(100,059)	(263,196)	(100,059)
Accumulated other comprehensive income (loss)					
Balance, beginning of period		30,810	(117,294)	(124,214)	(43,801)
Other comprehensive income (loss), net of tax	9	32,972	(11,637)	187,996	(85,130)
Balance, end of period		63,782	(128,931)	63,782	(128,931)
Retained earnings					
Balance, beginning of period		1,966,994	1,307,629	1,647,275	977,178
Net income		176,934	181,900	496,653	512,351
Cash dividends	12	(21,223)	—	(21,223)	—
Balance, end of period		2,122,705	1,489,529	2,122,705	1,489,529
Total shareholders' equity		\$ 4,159,617	\$ 3,489,531	\$ 4,159,617	\$ 3,489,531

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

<i>(In thousands)</i>	Nine Months Ended September 30,	
	2019	2018
Cash flows from operating activities:		
Net income	\$ 496,653	\$ 512,351
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	35,778	45,267
Deferred tax expense	7,628	145,397
Net realized investment (gains) losses	(3,986)	1,112
Change in certain assets and liabilities:		
Accrued investment income	(319)	694
Reinsurance recoverable on loss reserves	13,762	15,193
Reinsurance recoverable on paid losses	1,375	761
Premium receivable	3,286	2,405
Deferred insurance policy acquisition costs	(122)	176
Profit commission receivable	3,868	(9,098)
Loss reserves	(71,722)	(264,589)
Unearned premiums	(17,429)	14,680
Return premium accrual	(9,600)	(18,600)
Current income taxes	(8,765)	(75,393)
Other, net	7,756	13,191
Net cash provided by operating activities	458,163	383,547
Cash flows from investing activities:		
Purchases of investments	(1,043,003)	(1,074,849)
Proceeds from sales of investments	201,369	338,939
Proceeds from maturity of fixed income securities	536,747	594,679
Net increase in payable for securities	—	43,679
Additions to property and equipment	(4,079)	(10,659)
Net cash used in investing activities	(308,966)	(108,211)
Cash flows from financing activities:		
Repurchase of common stock	(105,766)	(100,059)
Dividends paid	(20,989)	—
Payment of withholding taxes related to share-based compensation net share settlement	(5,726)	(8,131)
Net cash used in financing activities	(132,481)	(108,190)
Net increase in cash and cash equivalents and restricted cash and cash equivalents	16,716	167,146
Cash and cash equivalents and restricted cash and cash equivalents at beginning of period	155,038	99,851
Cash and cash equivalents and restricted cash and cash equivalents at end of period	\$ 171,754	\$ 266,997

See accompanying notes to consolidated financial statements.

MGIC INVESTMENT CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
September 30, 2019
(Unaudited)

Note 1. Nature of Business and Basis of Presentation

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. MGIC Assurance Corporation ("MAC") and MGIC Indemnity Corporation ("MIC"), insurance subsidiaries of MGIC, provide insurance for certain mortgages under Fannie Mae and Freddie Mac (the "GSEs") credit risk transfer programs.

The accompanying unaudited consolidated financial statements of MGIC Investment Corporation and its wholly-owned subsidiaries have been prepared in accordance with the instructions to Form 10-Q as prescribed by the Securities and Exchange Commission ("SEC") for interim reporting and do not include all of the other information and disclosures required by accounting principles generally accepted in the United States of America ("GAAP"). These statements should be read in conjunction with the consolidated financial statements and notes thereto for the year ended December 31, 2018 included in our 2018 Annual Report on Form 10-K. As used below, "we," "our" and "us" refer to MGIC Investment Corporation's consolidated operations or to MGIC Investment Corporation, as the context requires.

In the opinion of management, the accompanying financial statements include all adjustments, consisting primarily of normal recurring accruals, necessary to fairly state our consolidated financial position and consolidated results of operations for the periods indicated. The consolidated results of operations for the interim period may not be indicative of the results that may be expected for the year ending December 31, 2019.

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 and subject to a floor amount). Based on our application of the more restrictive PMIERS, as of September 30, 2019, MGIC's Available Assets are in excess of its Minimum Required Assets; and MGIC is in compliance with the financial requirements of the PMIERS and eligible to insure loans purchased by the GSEs.

Reclassifications

Certain reclassifications to 2018 amounts have been made in the accompanying financial statements to conform to the 2019 presentation.

Subsequent events

We have considered subsequent events through the date of this filing.

Note 2. Significant Accounting Policies

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.

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 Financial Accounting Standards Board (“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. The adoption of the updated guidance did not have a material effect on our consolidated results of operations or liquidity. Our minimum future operating lease payments as of September 30, 2019 totaled \$2.0 million.

Prospective Accounting Standards

Table 2.1 shows the relevant new amendments to accounting standards, which are not yet effective or adopted.

Standard / Interpretation

Table 2.1

Amended Standards	Effective date
ASC 326 Financial Instruments - Credit Losses <ul style="list-style-type: none">ASU 2016-13 - Measurement of Credit Losses on Financial Instruments	January 1, 2020
ASC 820 Fair Value Measurement <ul style="list-style-type: none">ASU 2018-13 - Changes to the Disclosure Requirements for Fair Value Measurements	January 1, 2020
ASC 715 Compensation - Retirement Benefits <ul style="list-style-type: none">ASU 2018-14 - Changes to the Disclosure Requirements for Defined Benefit Plans	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. Entities will be 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. Early adoption is permitted for annual and interim periods in fiscal years beginning after December 15, 2018. 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. The effective dates remain the same. We are currently evaluating the impacts the adoption of this guidance will have on our consolidated financial statements and disclosures, but do not expect it to 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 will require 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. An entity is permitted to early adopt any guidance that removed or modified disclosures upon issuance of this update and to delay adoption of the additional disclosures until its effective date. 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.

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 disclosures 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.

Note 3. Debt

Debt obligations

The par value of our long-term debt obligations and their aggregate carrying values as of September 30, 2019 and December 31, 2018 are presented in table 3.1 below.

Long-term debt obligations

(In millions)	September 30, 2019	December 31, 2018
FHLB Advance - 1.91%, due February 2023	\$ 155.0	\$ 155.0
5.75% Notes, due August 2023 (par value: \$425 million)	420.6	419.7
9% Debentures, due April 2063 ⁽¹⁾	256.9	256.9
Long-term debt, carrying value	\$ 832.5	\$ 831.6

(1) Convertible at any time prior to maturity at the holder's option, at an initial conversion rate, which is subject to adjustment, of 74.0741 shares per \$1,000 principal amount, representing an initial conversion price of approximately \$13.50 per share. In the event of a cash dividend to all or substantially all holders of our common stock, the conversion rate shall be increased by multiplying the conversion rate in effect immediately prior to the ex-dividend date for such distribution by a fraction, (a) the numerator shall be the current market price of our common stock on the ex-dividend date; and (b) the denominator shall be the current market price of our common stock on the ex-dividend date less the amount by which the dividend per share exceeds \$0.025. No adjustment in the conversion rate shall be required unless such adjustment would require an increase or decrease of at least one percent in such rate; provided that any such adjustments that are not required to be made shall be carried forward and such carry-forward adjustments shall be made, regardless of whether the aggregate adjustment is less than one percent at the end of each fiscal year, or in certain other circumstances. The conversion price per share is \$1,000 divided by the conversion rate, and will change upon a change in the conversion rate. If a holder elects to convert its debentures, deferred interest owed on the 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. In lieu of issuing shares of common stock upon conversion of the debentures, we may, at our option, make a cash payment to converting holders for all or some of the shares of our common stock otherwise issuable upon conversion.

The 5.75% Senior Notes ("5.75% Notes"), 9% Convertible Junior Subordinated Debentures ("9% Debentures") are obligations of our holding company, MGIC Investment Corporation, and not of its subsidiaries. The Federal Home Loan Bank Advance (the "FHLB Advance") is an obligation of MGIC.

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 for the nine months ended September 30, 2019 and 2018 were \$38.5 million and \$38.8 million, respectively.

Note 4. Reinsurance

The reinsurance agreements to which we are a party, excluding captive agreements (which were immaterial), are discussed below. The effect of all of our reinsurance agreements on premiums earned and losses incurred is shown in table 4.1 below.

Reinsurance

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Premiums earned:				
Direct	\$ 294,909	\$ 275,044	\$ 861,705	\$ 808,531
Assumed	1,388	709	3,275	936
Ceded	(28,440)	(25,327)	(100,260)	(79,970)
Net premiums earned	\$ 267,857	\$ 250,426	\$ 764,720	\$ 729,497
Losses incurred:				
Direct	\$ 36,755	\$ (2,081)	\$ 102,835	\$ 12,642
Assumed	(34)	55	(110)	45
Ceded	(2,736)	508	(7,841)	(3,810)
Losses incurred, net	\$ 33,985	\$ (1,518)	\$ 94,884	\$ 8,877

Quota share reinsurance

We utilize quota share reinsurance transactions ("QSR Transactions") to manage our exposure to losses resulting from our mortgage guaranty insurance policies and to provide reinsurance capital credit under the PMIERS. Each of the reinsurers under our QSR Transactions has an insurer financial strength rating of A- or better by Standard and Poor's Rating Services, A.M. Best or both.

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 new insurance written 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 or full financial statement 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 a profit commission provided that the loss ratio on the loans covered under the agreement remains below 62%.

2018 and prior QSR Transactions. See Note 9 of Notes to Consolidated Financial Statements in our 2018 Form 10-K for more information about our QSR Transactions entered into prior to 2019.

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 in July 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 through December 31, 2031, at which time the agreement expires. Early termination of the amended agreement can be elected by us effective June 30, 2021 for no fee, or under specified scenarios, including if we will receive less than 90% of the full credit amount under the PMIERS or full financial statement 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 a profit commission provided that the loss ratio on the covered loans remains below 68%.

Table 4.2 below presents a summary of our quota share reinsurance agreements for the three and nine months ended September 30, 2019 and 2018.

Quota Share Reinsurance

Table 4.2

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Ceded premiums written and earned, net of profit commission (1)	\$ 23,032	\$ 25,248	\$ 87,721	\$ 79,716
Ceded losses incurred	2,729	(522)	7,845	3,531
Ceding commissions (2)	11,042	12,983	37,807	38,268
Profit commission	32,177	39,664	108,079	111,622

(1) Premiums are ceded on an earned and received basis as defined in the agreements. The nine months ended September 30, 2019 include the \$6.8 million termination fee discussed in "2015 QSR Transaction" above.

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

Under the terms of the QSR Transactions, ceded premiums, ceding commission and profit commission are settled net on a quarterly basis. The ceded premiums 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 related to our QSR Transactions was \$19.5 million as of September 30, 2019 and \$33.2 million as of December 31, 2018. The reinsurance recoverable balance is secured by funds on deposit from the reinsurers which are based on the funding requirements of PMIERS that address ceded risk.

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.

Excess of Loss Reinsurance

Table 4.3

(In thousands)

Home Re Entity (Issue Date)	Policy Inforce Dates	Termination Option Date (1)	As of September 30, 2019	
			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	\$ 168,112	\$ 288,852
Home Re 2019-1 Ltd. (May - 2019)	January 1, 2018 - March 31, 2019	May 25, 2026	185,714	315,739
Total			\$ 353,826	\$ 604,591

(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 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 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 September 30, 2019, were not material to our consolidated balance sheet, and the change in fair values during the three and nine months ended September 30, 2019 were not material to our consolidated statements of operations. Total ceded premiums were \$5.4 million and \$12.4 million for the three and nine months ended September 30, 2019, respectively.

At the time the Home Re Transactions were entered into, we assessed whether each Home Re Entity was 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. We concluded that each Home Re Entity is a VIE. However, 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 September 30, 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 4.4 presents the total assets of the Home Re Entities as of September 30, 2019 and December 31, 2018.

Home Re total assets

Table 4.4

(In thousands)

Home Re Entity (Issue date)	Total VIE Assets
<u>September 30, 2019</u>	
Home Re 2018-01 Ltd. (Oct - 2018)	\$ 299,655
Home Re 2019-01 Ltd. (May - 2019)	\$ 315,739
<u>December 31, 2018</u>	
Home Re 2018-01 Ltd. (Oct - 2018)	\$ 318,636

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

Note 5. 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 2018, and the first nine months of 2019, curtailments reduced our average claim paid by approximately 5.8% and 4.7%, 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. Where we have determined that a loss is probable and can be reasonably estimated, we have recorded our best estimate of our probable loss, including recording a probable loss of \$23.5 million in the first quarter of 2019. Until settlement negotiations or legal proceedings for which we have recorded a probable loss are concluded; (including the receipt of any necessary GSE approvals), it is reasonably possible that we will record an additional loss. In addition to matters for which we have recorded a probable loss, we are involved in other 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 \$264.0 million more than the amount of probable loss we have recorded. 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 the third quarter of 2019, we entered into an agreement to settle a claims paying practices dispute for which we previously had recognized a probable loss. 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. The agreement remains subject to GSE approval.

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 underwriting remedy expense for 2018 and the first nine months of 2019 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 6. 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. For purposes of calculating basic EPS, vested restricted stock and restricted stock units ("RSUs") are considered outstanding. 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 unvested RSUs result in the issuance of common stock. Under the if-converted method, diluted EPS reflects the potential dilution that could occur if our 9% Debentures 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.

Table 6.1 reconciles the numerators and denominators used to calculate basic and diluted EPS.

Earnings per share

Table 6.1

<i>(In thousands, except per share data)</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Basic earnings per share:				
Net income	\$ 176,934	\$ 181,900	\$ 496,653	\$ 512,351
Weighted average common shares outstanding - basic	351,475	362,180	354,272	367,190
Basic earnings per share	\$ 0.50	\$ 0.50	\$ 1.40	\$ 1.40
Diluted earnings per share:				
Net income	\$ 176,934	\$ 181,900	\$ 496,653	\$ 512,351
Interest expense, net of tax ⁽¹⁾ :				
9% Debentures	4,566	4,566	13,698	13,698
Diluted income available to common shareholders	\$ 181,500	\$ 186,466	\$ 510,351	\$ 526,049
Weighted average common shares outstanding - basic	351,475	362,180	354,272	367,190
Effect of dilutive securities:				
Unvested RSUs	2,072	1,697	1,966	1,547
9% Debentures	19,028	19,028	19,028	19,028
Weighted average common shares outstanding - diluted	372,575	382,905	375,266	387,765
Diluted earnings per share	\$ 0.49	\$ 0.49	\$ 1.36	\$ 1.36

⁽¹⁾ The periods ended September 30, 2019 and 2018 were tax-effected at a rate of 21%.

Note 7. Investments

Fixed income securities

The amortized cost, gross unrealized gains and losses, and fair value of investments in fixed income securities classified as available-for-sale at September 30, 2019 and December 31, 2018 are shown in tables 7.1a and 7.1b below.

Details of fixed income securities by category as of September 30, 2019

Table 7.1a

<i>(In thousands)</i>	Amortized Cost	Gross Unrealized Gains	Gross Unrealized (Losses) ⁽¹⁾	Fair Value
U.S. Treasury securities and obligations of U.S. government corporations and agencies	\$ 197,748	\$ 1,456	\$ (75)	\$ 199,129
Obligations of U.S. states and political subdivisions	1,552,283	108,763	(494)	1,660,552
Corporate debt securities	2,653,124	74,630	(3,151)	2,724,603
Asset backed securities ("ABS")	212,792	2,819	(65)	215,546
Residential mortgage backed securities ("RMBS")	248,098	1,022	(2,663)	246,457
Commercial mortgage backed securities ("CMBS")	280,364	6,714	(266)	286,812
Collateralized loan obligations ("CLOs")	329,484	81	(1,672)	327,893
Total fixed income securities	\$ 5,473,893	\$ 195,485	\$ (8,386)	\$ 5,660,992

Details of fixed income securities by category as of December 31, 2018
Table 7.1b

<i>(In thousands)</i>	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⁾ At September 30, 2019 and December 31, 2018, there were no other-than-temporary impairment losses recorded in other comprehensive income.

The increase in gross unrealized gains and the decrease in gross unrealized losses in our fixed income securities from December 31, 2018 to September 30, 2019 were primarily caused by declines in interest rates during that period.

We had \$13.8 million and \$13.5 million of investments at fair value on deposit with various states as of September 30, 2019 and December 31, 2018, respectively, due to regulatory requirements of those state insurance departments.

The amortized cost and fair values of fixed income securities at September 30, 2019, by contractual maturity, are shown in table 7.2 below. Actual maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. Because most ABS, RMBS, CMBS, and CLOs provide for periodic payments throughout their lives, they are listed in separate categories.

Fixed income securities maturity schedule
Table 7.2

<i>(In thousands)</i>	September 30, 2019	
	Amortized cost	Fair Value
Due in one year or less	\$ 372,478	\$ 373,388
Due after one year through five years	1,928,972	1,966,387
Due after five years through ten years	1,001,486	1,059,774
Due after ten years	1,100,219	1,184,735
	4,403,155	4,584,284
ABS	212,792	215,546
RMBS	248,098	246,457
CMBS	280,364	286,812
CLOs	329,484	327,893
Total as of September 30, 2019	\$ 5,473,893	\$ 5,660,992

Proceeds from sales of fixed income securities classified as available-for-sale were \$201.4 million and \$338.9 million during the nine months ended September 30, 2019 and 2018, respectively. Gross gains of \$3.3 million and \$5.3 million and gross losses of \$0.7 million and \$3.0 million were realized on those sales during the three and nine months ended September 30, 2019, respectively. Gross gains of \$0.3 million and \$0.4 million and gross losses of \$2.3 million and \$3.3 million were realized on those sales during the three and nine months ended September 30, 2018, respectively. During the nine months ended September 30, 2019, we recorded other-than-temporary impairment (“OTTI”) losses of \$0.1 million. During the three and nine months ended September 30, 2018, we recorded OTTI losses of \$0.5 million and \$1.8 million, respectively.

Equity securities

The cost and fair value of investments in equity securities at September 30, 2019 and December 31, 2018 are shown in tables 7.3a and 7.3b below.

Details of equity security investments as of September 30, 2019

		Cost	Gross Gains	Gross Losses	Fair Value
<i>(In thousands)</i>					
Equity securities		\$ 17,205	\$ 163	\$ (8)	\$ 17,360

Details of equity security investments as of December 31, 2018

		Cost	Gross Gains	Gross Losses	Fair Value
<i>(In thousands)</i>					
Equity securities		\$ 3,993	\$ 11	\$ (72)	\$ 3,932

For the three and nine months ended September 30, 2019, we recognized an insignificant amount and \$0.2 million, respectively, of net gains on equity securities still held as of September 30, 2019. For the nine months ended September 30, 2018, we recognized \$3.6 million of net gains on equity securities still held as of September 30, 2018.

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. As of September 30, 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 \$165.4 million.

Unrealized investment losses

Tables 7.4a and 7.4b below summarize, for all available-for-sale investments in an unrealized loss position at September 30, 2019 and December 31, 2018, the aggregate fair value and gross unrealized loss by the length of time those securities have been continuously in an unrealized loss position. The fair value amounts reported in tables 7.4a and 7.4b are estimated using the process described in Note 8 - "Fair Value Measurements" to these consolidated financial statements and in Note 3 - "Significant Accounting Policies" of the notes to the consolidated financial statements in our 2018 Annual Report on Form 10-K.

Unrealized loss aging for securities by type and length of time as of September 30, 2019

<i>(In thousands)</i>	Less Than 12 Months		12 Months or Greater		Total	
	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	\$ 25,284	\$ (48)	\$ 7,364	\$ (27)	\$ 32,648	\$ (75)
Obligations of U.S. states and political subdivisions	4,965	(467)	10,007	(27)	14,972	(494)
Corporate debt securities	135,541	(2,818)	78,842	(333)	214,383	(3,151)
ABS	8,998	(65)	—	—	8,998	(65)
RMBS	47,166	(309)	116,534	(2,354)	163,700	(2,663)
CMBS	21,882	(196)	13,579	(70)	35,461	(266)
CLOs	147,272	(1,008)	113,322	(664)	260,594	(1,672)
Total	\$ 391,108	\$ (4,911)	\$ 339,648	\$ (3,475)	\$ 730,756	\$ (8,386)

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

Table 7.4b

(In thousands)	Less Than 12 Months		12 Months or Greater		Total	
	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)

The unrealized losses in all categories of our investments at September 30, 2019 and December 31, 2018 were primarily caused by changes in interest rates between the time of purchase and the respective fair value measurement date. There were 183 and 721 securities in an unrealized loss position at September 30, 2019 and December 31, 2018, respectively.

Note 8. Fair Value Measurements

Recurring fair value measurements

The following 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 ("CLOs") 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 is 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.

Assets measured at fair value, by hierarchy level, as of September 30, 2019 and December 31, 2018 are shown in tables 8.1a and 8.1b below. The fair value of the assets is estimated using the process described above, and more fully in Note 3 - "Significant Accounting Policies" of the notes to the consolidated financial statements in our 2018 Annual Report on Form 10-K.

Assets carried at fair value by hierarchy level as of September 30, 2019

<i>(In thousands)</i>	Total 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	\$ 199,129	\$ 40,545	\$ 158,584	\$ —
Obligations of U.S. states and political subdivisions	1,660,552	—	1,660,552	—
Corporate debt securities	2,724,603	—	2,724,603	—
ABS	215,546	—	215,546	—
RMBS	246,457	—	246,457	—
CMBS	286,812	—	286,812	—
CLOs	327,893	—	327,893	—
Total fixed income securities	5,660,992	40,545	5,620,447	—
Equity securities	17,360	17,360	—	—
Other (1)	161,518	161,518	—	—
Real estate acquired (2)	7,779	—	—	7,779
Total	\$ 5,847,649	\$ 219,423	\$ 5,620,447	\$ 7,779

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

<i>(In thousands)</i>	Total 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	3,932	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 sheets.

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

Reconciliations of Level 3 assets

For assets measured at fair value using significant unobservable inputs (Level 3), a reconciliation of the beginning and ending balances for the three and nine months ended September 30, 2019 and 2018 is shown in tables 8.2a through 8.2d below. As shown in table 8.2d below, we transferred our 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." There were no losses included in earnings for those periods attributable to the change in unrealized losses on assets still held at the end of the applicable period.

Fair value roll-forward for financial instruments classified as Level 3 for the three months ended September 30, 2019

(In thousands)	Fixed income	Equity Securities	Total Investments	Real Estate Acquired
Balance at June 30, 2019	\$ —	\$ —	\$ —	\$ 10,250
Purchases	—	—	—	4,681
Sales	—	—	—	(7,173)
Included in earnings and reported as losses incurred, net	—	—	—	21
Balance at September 30, 2019	\$ —	\$ —	\$ —	\$ 7,779

Fair value roll-forward for financial instruments classified as Level 3 for the nine months ended September 30, 2019

(In thousands)	Fixed income	Equity Securities	Total Investments	Real Estate Acquired
Balance at December 31, 2018	\$ 13	\$ —	\$ 13	\$ 14,535
Purchases	—	—	—	19,872
Sales	(13)	—	(13)	(26,197)
Included in earnings and reported as losses incurred, net	—	—	—	(431)
Balance at September 30, 2019	\$ —	\$ —	\$ —	\$ 7,779

Fair value roll-forward for financial instruments classified as Level 3 for the three months ended September 30, 2018

(In thousands)	Fixed income	Equity Securities	Total Investments	Real Estate Acquired
Balance at June 30, 2018	192	1,168	1,360	13,321
Purchases	—	—	—	7,979
Sales	(115)	—	(115)	(8,511)
Included in earnings and reported as net realized investment gains	—	3,663	3,663	—
Included in earnings and reported as losses incurred, net	—	—	—	(450)
Balance at September 30, 2018	\$ 77	\$ 4,831	\$ 4,908	\$ 12,339

Fair value roll-forward for financial instruments classified as Level 3 for the nine months ended September 30, 2018

(In thousands)	Fixed income	Equity Securities	Total Investments	Real Estate Acquired
Balance at December 31, 2017	271	4,268	4,539	12,713
Transfers out of Level 3	—	(3,100)	(3,100)	—
Purchases	—	—	—	24,742
Sales	(194)	—	(194)	(24,012)
Included in earnings and reported as net realized investment gains	—	3,663	3,663	—
Included in earnings and reported as losses incurred, net	—	—	—	(1,104)
Balance at September 30, 2018	\$ 77	\$ 4,831	\$ 4,908	\$ 12,339

Certain financial instruments, including insurance contracts, are excluded from these fair value disclosure requirements. The carrying values of cash and cash equivalents (Level 1) and accrued investment income (Level 2) approximated their fair values. Additional fair value disclosures related to our investment portfolio are included in [Note 7 – "Investments."](#)

Financial assets and liabilities not measured 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. In all cases the fair values of the financial liabilities below are categorized as Level 2.

Table 8.3 presents the carrying value and fair value of our financial assets and liabilities disclosed, but not carried, at fair value at September 30, 2019 and December 31, 2018.

Financial assets and liabilities not measured at fair value

Table 8.3

(In thousands)	September 30, 2019		December 31, 2018	
	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	\$ 156,637	\$ 155,000	\$ 150,551
5.75% Senior Notes	420,578	467,317	419,713	425,791
9% Convertible Junior Subordinated Debentures	256,872	351,699	256,872	338,069
Total financial liabilities	\$ 832,450	\$ 975,653	\$ 831,585	\$ 914,411

Note 9. Other Comprehensive Income

The pretax and related income tax (expense) benefit components of our other comprehensive income (loss) for the three and nine months ended September 30, 2019 and 2018 are included in table 9.1 below.

Components of other comprehensive income (loss)

Table 9.1

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Net unrealized investment gains (losses) arising during the period	\$ 39,712	\$ (15,288)	\$ 231,895	\$ (109,433)
Income tax (expense) benefit	(8,340)	3,211	(48,698)	22,981
Net of taxes	31,372	(12,077)	183,197	(86,452)
Net changes in benefit plan assets and obligations	2,024	558	6,074	1,674
Income tax expense	(424)	(118)	(1,275)	(352)
Net of taxes	1,600	440	4,799	1,322
Total other comprehensive income (loss)	41,736	(14,730)	237,969	(107,759)
Total income tax (expense) benefit	(8,764)	3,093	(49,973)	22,629
Total other comprehensive income (loss), net of tax	\$ 32,972	\$ (11,637)	\$ 187,996	\$ (85,130)

The pretax and related income tax benefit (expense) components of the amounts reclassified from our accumulated other comprehensive income (loss) ("AOCI") to our consolidated statements of operations for the three and nine months ended September 30, 2019 and 2018 are included in table 9.2 below.

Reclassifications from AOCI

Table 9.2

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Reclassification adjustment for net realized gains (losses) ⁽¹⁾	\$ 2,772	\$ (2,567)	\$ 1,794	\$ (6,279)
Income tax (expense) benefit	(582)	539	(376)	1,318
Net of taxes	2,190	(2,028)	1,418	(4,961)
Reclassification adjustment related to benefit plan assets and obligations ⁽²⁾	(2,024)	(558)	(6,074)	(1,674)
Income tax benefit	424	118	1,275	352
Net of taxes	(1,600)	(440)	(4,799)	(1,322)
Total reclassifications	748	(3,125)	(4,280)	(7,953)
Total income tax (expense) benefit	(158)	657	899	1,670
Total reclassifications, net of tax	\$ 590	\$ (2,468)	\$ (3,381)	\$ (6,283)

(1) Increases (decreases) Net realized investment (losses) gains on the consolidated statements of operations.

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

A rollforward of AOCI for the nine months ended September 30, 2019, including amounts reclassified from AOCI, are included in table 9.3 below.

Rollforward of AOCI

Table 9.3

(In thousands)	Nine Months Ended September 30, 2019		
	Net unrealized gains and (losses) on available-for-sale securities	Net benefit plan assets and (obligations) recognized in shareholders' equity	Total accumulated other comprehensive income (loss)
Balance, December 31, 2018, net of tax	\$ (35,389)	\$ (88,825)	\$ (124,214)
Other comprehensive income before reclassifications	184,615	—	184,615
Less: Amounts reclassified from AOCI	1,418	(4,799)	(3,381)
Balance, September 30, 2019, net of tax	\$ 147,808	\$ (84,026)	\$ 63,782

Note 10. Benefit Plans

Tables 10.1 and 10.2 provide the components of net periodic benefit cost for our pension, supplemental executive retirement and other postretirement benefit plans for the three and nine months ended September 30, 2019 and 2018.

Components of net periodic benefit cost

Table 10.1

(In thousands)	Three Months Ended September 30,			
	Pension and Supplemental Executive Retirement Plans		Other Postretirement Benefit Plans	
	2019	2018	2019	2018
Service cost	\$ 2,086	\$ 2,633	\$ 337	\$ 290
Interest cost	3,926	3,774	283	208
Expected return on plan assets	(4,866)	(5,563)	(1,447)	(1,590)
Amortization of net actuarial losses/(gains)	2,103	1,734	—	(62)
Amortization of prior service cost/(credit)	(71)	(88)	(8)	(1,026)
Net periodic benefit cost (benefit)	\$ 3,178	\$ 2,490	\$ (835)	\$ (2,180)

Components of net periodic benefit cost

Table 10.2

(in thousands)	Nine Months Ended September 30,			
	Pension and Supplemental Executive Retirement Plans		Other Postretirement Benefits	
	2019	2018	2019	2018
Service cost	\$ 6,258	\$ 7,898	\$ 1,009	\$ 870
Interest cost	11,779	11,321	848	625
Expected return on plan assets	(14,599)	(16,688)	(4,339)	(4,769)
Recognized net actuarial gain (loss)	6,309	5,203	—	(187)
Amortization of prior service cost	(211)	(263)	(25)	(3,078)
Net period benefit cost (benefit)	\$ 9,536	\$ 7,471	\$ (2,507)	\$ (6,539)

We currently intend to make contributions totaling \$10.2 million to our qualified pension plan and supplemental executive retirement plan in 2019.

Note 11. Loss Reserves

We establish reserves to recognize the estimated liability for losses and loss adjustment expenses ("LAE") related to defaults on insured mortgage loans. Loss 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.

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 default 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.

The "Losses incurred" section of table 11.1 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 the first nine months of 2019 compared to the same period in 2018, due to a decrease in the estimated claim rate on delinquencies that occurred in the current year.

For the nine months ended September 30, 2019 and 2018, we experienced favorable loss reserve development on previously received delinquencies. This was, in large part, due to the resolution of approximately 61% and 65%, respectively, of the prior year delinquent inventory, with lower claim rates due to improved cure rates. The favorable loss reserve development resulting from a reduction in the estimated claim rate was partially offset in the nine months ended September 30, 2019 by the recognition of a probable loss of \$23.5 million related to litigation of our claims paying practices and an increase in our LAE reserves, and for the nine months ended September 30, 2018, by an increase in our severity assumption on previously received delinquencies and an increase in our LAE reserves.

The "Losses paid" section of table 11.1 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 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.

During the first nine months of 2019 and 2018, our losses paid included amounts paid upon commutation of coverage of pools of non-performing loans (“NPLs”). The impacts of these payments were as follows:

- 2019 - 195 items were removed from the delinquent inventory with an amount paid of \$4 million.
- 2018 - 1,243 items were removed from the delinquent inventory with an amount paid of \$40 million.

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 \$31 million and \$40 million at September 30, 2019 and December 31, 2018, respectively.

Table 11.1 provides a reconciliation of beginning and ending loss reserves as of and for the nine months ended September 30, 2019 and 2018.

Development of reserves for losses and loss adjustment expenses

Table 11.1 (In thousands)	Nine Months Ended September 30,	
	2019	2018
Reserve at beginning of period	\$ 674,019	\$ 985,635
Less reinsurance recoverable	33,328	48,474
Net reserve at beginning of period	640,691	937,161
Losses incurred:		
Losses and LAE incurred in respect of delinquency notices received in:		
Current year	142,644	155,808
Prior years (1)	(47,760)	(146,931)
Total losses incurred	94,884	8,877
Losses paid:		
Losses and LAE paid in respect of delinquency notices received in:		
Current year	980	2,449
Prior years	165,844	257,808
Reinsurance terminations	(13,980)	(1,984)
Total losses paid	152,844	258,273
Net reserve at end of period	582,731	687,765
Plus reinsurance recoverables	19,566	33,281
Reserve at end of period	\$ 602,297	\$ 721,046

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

The prior year development of the reserves in the first nine months of 2019 and 2018 is reflected in table 11.2 below.

Reserve development on previously received delinquencies

Table 11.2 (In millions)	Nine Months Ended September 30,	
	2019	2018
Decrease in estimated claim rate on primary defaults	\$ (94)	\$ (184)
Increase in estimated severity on primary defaults	2	22
Change in estimates related to pool reserves, LAE reserves, reinsurance, and other	44	15
Total prior year loss development (1)	\$ (48)	\$ (147)

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

Delinquent inventory

A rollforward of our primary delinquent inventory for the three and nine months ended September 30, 2019 and 2018 appears in table 11.3 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 accuracy of the data provided by servicers, the number of business days in a month, transfers of servicing between loan servicers and whether all servicers have provided the reports in a given month.

Delinquent inventory rollforward

Table 11.3

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Delinquent inventory at beginning of period	29,795	36,037	32,898	46,556
New notices	14,019	13,569	40,545	40,351
Cures	(12,592)	(14,197)	(39,822)	(47,620)
Paid claims	(1,045)	(1,374)	(3,345)	(4,446)
Rescissions and denials	(42)	(56)	(141)	(200)
Other items removed from inventory	(195)	(581)	(195)	(1,243)
Delinquent inventory at end of period	29,940	33,398	29,940	33,398

When compared to the prior year periods, the decrease in the primary delinquent inventory experienced during the three and nine months ended September 30, 2019 and 2018 was generally across all markets and primarily in book years 2008 and prior. New notices increased in the three and nine months ended September 2019 when compared to the same periods of 2018 primarily due to our larger, more recent book years entering their expected peak loss years, and an overall increase in our insurance in force and policies in force. New notice activity in the three months ended September 30, 2019 exceeded the reductions to our delinquent inventory resulting in a slight increase in our delinquent inventory from June 30, 2019.

Table 11.4 below shows the number of consecutive months a borrower is delinquent. Historically as a delinquency ages it becomes more likely to result in a claim.

Primary delinquent inventory - consecutive months delinquent

Table 11.4

	September 30, 2019	December 31, 2018	September 30, 2018
3 months or less	9,462	9,829	9,484
4-11 months	9,082	9,655	9,564
12 months or more ⁽¹⁾	11,396	13,414	14,350
Total	29,940	32,898	33,398
3 months or less	32%	30%	28%
4-11 months	30%	29%	29%
12 months or more	38%	41%	43%
Total	100%	100%	100%
Primary claims received inventory included in ending delinquent inventory	557	809	766

⁽¹⁾ Approximately 36%, 38%, and 39% of the primary delinquent inventory delinquent for 12 consecutive months or more has been delinquent for at least 36 consecutive months as of September 30, 2019, December 31, 2018, and September 30, 2018, respectively.

Claims paying practices

Our loss reserving methodology incorporates our estimates of future rescissions and curtailments. A variance between ultimate actual rescission and curtailment 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 5 – "Litigation and Contingencies."

Note 12. Shareholders' Equity

Share repurchase programs

During the nine months ending September 30, 2019 we repurchased approximately 7.3 million shares of our common stock at a weighted average cost per share of \$12.92, which included commissions. We may repurchase up to an additional \$131 million of our common stock through the end of 2020 under a share repurchase program approved by our Board of Directors in the first quarter of 2019. Repurchases may be made from time to time on the open market or through privately negotiated transactions. The repurchase program may be suspended for periods or discontinued at any time.

Cash dividends

In September 2019, we paid a quarterly cash dividend of \$0.06 per share to shareholders which totaled \$21 million. On October 24, 2019, the Board of Directors declared a quarterly cash dividend to holders of the company's common stock of \$0.06 per share payable on November 25, 2019, to shareholders of record at the close of business on November 11, 2019.

Note 13. 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.

Table 13.1 shows the number of restricted stock units (RSUs) granted to employees and the weighted average fair value per share during the periods presented (shares in thousands).

Restricted stock unit grants

Table 13.1

	Nine months ended September 30,			
	2019		2018	
	RSUs Granted	Weighted Average Share Fair Value	RSUs Granted	Weighted Average Share Fair Value
RSUs subject to performance conditions	1,378	\$ 11.76	1,239	\$ 15.80
RSUs subject only to service conditions	605	12.21	447	15.39

Note 14. Statutory Information

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 net 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 September 30, 2019, MGIC's risk-to-capital ratio was 9.9 to 1, below the maximum allowed by the jurisdictions with State Capital Requirements, and its policyholder position was \$2.9 billion above the required MPP of \$1.6 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 financial requirements of 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, matters that could negatively affect such compliance are discussed in the rest of these consolidated financial statement footnotes.

At September 30, 2019, the risk-to-capital ratio of our combined insurance operations was 9.8 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 May 2016, a working group of state regulators released an exposure draft of 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, minimum capital floors, and action level triggers. 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 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. 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, matters that could negatively affect MGIC's claims paying resources are discussed in the rest of these consolidated financial statement footnotes.

Tax and Loss Bonds

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. During the nine months ended September 30, 2019, we had net purchases of T&L Bonds in the amount of \$126 million. 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.

Dividend restrictions

In each of the first three quarters of 2019, MGIC paid a \$70 million dividend to our holding company. 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 such dividends being subject to regulatory disapproval 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. 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 their contingency reserves through their income statement as a change in underwriting deduction. As a result, in periods in which MGIC is increasing contingency reserves, statutory net income is lowered.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Introduction

The following is management’s discussion and analysis of the financial condition and results of operations of MGIC Investment Corporation for the third quarter of 2019. As used below, “we” and “our” refer to MGIC Investment Corporation’s consolidated operations. This form 10-Q should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K for the year ended December 31, 2018. See the [“Glossary of terms and acronyms”](#) for definitions and descriptions of terms used throughout this MD&A. The Risk Factors referred to under “Forward Looking Statements and Risk Factors” below, discuss trends and uncertainties affecting us and are an integral part of the MD&A.

Forward Looking and Other Statements

As discussed under “Forward Looking Statements and Risk Factors” below, 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 this document was filed with the Securities and Exchange Commission.

Overview

Summary financial results of MGIC Investment Corporation

(In millions, except per share data, unaudited)	Three Months Ended September 30,			Nine Months Ended September 30,		
	2019	2018	% Change	2019	2018	% Change
Selected statement of operations data						
Total revenues	\$ 318.4	\$ 290.4	10	\$ 902.4	\$ 838.2	8
Losses incurred, net	34.0	(1.5)	N/M	94.9	8.9	N/M
Other underwriting and operating expenses, net	45.2	43.7	3	134.1	131.6	2
Income before tax	223.1	231.9	(4)	625.3	649.4	(4)
Provision for income taxes	46.2	50.0	(8)	128.6	137.1	(6)
Net income	176.9	181.9	(3)	496.7	512.4	(3)
Diluted income per share	\$ 0.49	\$ 0.49	—	\$ 1.36	\$ 1.36	—

Non-GAAP Financial Measures (1)

Adjusted pre-tax operating income	\$ 218.9	\$ 230.8	(5)	\$ 621.5	\$ 650.6	(4)
Adjusted net operating income	173.6	180.9	(4)	493.7	514.7	(4)
Adjusted net operating income per diluted share	\$ 0.48	\$ 0.48	—	\$ 1.35	\$ 1.36	(1)

(1) See "Explanation and reconciliation of our use of Non-GAAP financial measures."

Summary of third quarter 2019 results

Comparative quarterly results

We recorded third quarter 2019 net income of \$176.9 million, or \$0.49 per diluted share. Net income decreased by \$5.0 million (3%) from net income of \$181.9 million in the prior year, primarily reflecting an increase in losses incurred, net, partially offset by an increase in revenues and a decrease in our provision for income taxes. Diluted income per share was unchanged as a decrease in our weighted average shares outstanding offset the decline in net income.

Adjusted net operating income for the third quarter 2019 was \$173.6 million (Q3 2018: \$180.9 million) and adjusted net operating income per diluted share was \$0.48 (Q3 2018: \$0.48). Adjusted net operating income per diluted share was unchanged from the prior year period as a decrease in our diluted weighted average shares outstanding offset the decline in adjusted net operating income.

Losses incurred, net for the third quarter of 2019 were \$34.0 million, an increase of \$35.5 million compared to the prior year. The increase was primarily due to a lower level of favorable loss reserve development on previously received delinquencies when compared to the prior year. The estimated claim rate on new notices in the third quarter of 2019 was 8%, compared to 9% in the prior year.

The decrease in our provision for income taxes in the third quarter of 2019 as compared to the prior year was due to a decrease in income before tax and a lower effective tax rate.

Comparative year to date results

We recorded net income of \$496.7 million, or \$1.36 per diluted share during the first nine months of 2019. Net income decreased by \$15.7 million from net income of \$512.4 million in the prior year, primarily reflecting an increase in losses incurred, net, partially offset by an increase in revenues and a decrease in our provision for income taxes. Diluted income per share was the same as the prior year as a decrease in our diluted weighted average shares outstanding offset the decline in net income.

Adjusted net operating income for the first nine months of 2019 was \$493.7 million (YTD 2018: \$514.7 million) and adjusted net operating income per diluted share was \$1.35 (YTD 2018: \$1.36). Adjusted net operating income per diluted share was comparable to the prior year as a decrease in our diluted weighted average shares outstanding partially offset the decline in adjusted net operating income.

Losses incurred, net for the first nine months of 2019 were \$94.9 million, an increase of \$86.0 million over the prior year. The increase was due to a lower level of favorable loss reserve development on previously received delinquencies and the recognition of a probable loss of \$23.5 million for litigation of our claims paying practices during the first quarter of 2019. The increase was offset in part by lower current year losses incurred as the estimated claim rate on new notices in the first nine months of 2019 was 8%, compared to 9% in the prior year.

The decrease in our provision for income taxes in the first nine months of 2019 as compared to the prior year was primarily due to a decrease in income before tax.

See "Consolidated Results of Operations" below for additional discussion of our results for the three and nine months ended September 30, 2019 compared to the respective prior year periods.

Capital

MGIC dividend payments to our holding company

In the first nine months of 2019, MGIC paid a total of \$210 million in dividends to our holding company. We expect MGIC to pay dividends of at least \$280 million in 2020, subject to approval by MGIC's Board of Directors. We ask the OCI not to object before MGIC pays dividends.

Share repurchase programs

In the first three quarters of 2019, we repurchased approximately 7.3 million shares of our common stock, using approximately \$94 million of holding company resources. We may repurchase up to an additional \$131 million of our common stock through the end of 2020 under a share repurchase program approved by our Board of Directors in the first quarter of 2019. Repurchases may be made from time to time on the open market or through privately negotiated transactions. The repurchase programs may be suspended for periods or discontinued at any time. As of September 30, 2019, we had approximately 349 million shares of common stock outstanding.

Dividends to shareholders

In September 2019, MGIC paid a dividend of \$0.06 per common share totaling \$21 million to its shareholders. On October 24, 2019, our Board of Directors declared a quarterly cash dividend of \$0.06 per common share to shareholders of record on November 11, 2019, payable on November 25, 2019.

GSEs

We must comply with the PMIERS to be eligible to insure loans delivered to or purchased by the GSEs. In addition to their financial requirements, the PMIERS include business, quality control and certain transaction approval requirements. Refer to "[Liquidity and Capital Resources - Capital Adequacy - PMIERS](#)" of this MD&A for additional information regarding our capital adequacy under PMIERS.

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:

- è The GSEs may amend the PMIERS at any time and may make the PMIERS more onerous in the future. The GSEs have indicated that there may be potential future implications for PMIERS based upon feedback the FHFA receives on its June 2018 proposed rule on regulatory capital requirements 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 the capital requirements will be finalized no earlier than the end of 2019 and may not be finalized until Spring 2020. Further, any changes to the GSEs' capital and liquidity requirements resulting from the Treasury Housing Reform Plan (discussed below) could have future implications for PMIERS. In addition, the PMIERS provide that the factors that determine Minimum Required Assets will be updated every two years and may be updated more frequently to reflect changes in macroeconomic conditions or loan performance. The GSEs have indicated that they will generally provide notice 180 days prior to the effective date of such updates.
- è 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.

- è 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.

While on an overall basis, the amount of Available Assets MGIC must hold in order to continue to insure GSE loans is greater under the PMIERS than what state regulation currently requires, our reinsurance transactions mitigate the negative effect of the PMIERS on our returns. 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 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, MGIC's domiciliary state, require a mortgage insurer to maintain a minimum amount of statutory capital relative to its net 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.

At September 30, 2019, MGIC's risk-to-capital ratio was 9.9 to 1, below the maximum allowed by the jurisdictions with State Capital Requirements, and its policyholder position was \$2.9 billion above the required MPP of \$1.6 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 September 30, 2019, the risk-to-capital ratio of our combined insurance operations was 9.8 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 May 2016, a working group of state regulators released an exposure draft of 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, minimum capital floors, and action level triggers. 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 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 QM rule of the 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. It does not refer to mortgage insurance explicitly; however, it refers to a requirement for credit enhancement on high LTV loans, which is a requirement of the current GSE charters. The Plan also indicates that the FHFA should continue to support efforts to expand 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 TILA (Regulation Z) to include mortgages eligible to be purchased by the GSEs, even if the mortgages do not meet the DTI ratio limit of 43% included in the standard QM definition.

The GSE Patch is scheduled to expire no later than January 2021. In July 2019, the CFPB released an Advanced Notice of Proposed Rulemaking on the QM definition. The director of the CFPB indicated that the CFPB would consider only a short-term extension of the GSE Patch. Approximately 30%, 24% and 22% of our NIW in the first, second and third quarters of 2019, respectively, was on loans with DTI ratios greater than 43%.

However, it is possible that not all future loans with DTI ratios greater than 43% will be affected by a sunset of the GSE Patch, in part because the standard QM definition may be liberalized under the new rules. In this regard, we note that the CFPB asked for comment about whether the definition of QM should retain a direct measure of a consumer's personal finances (for example, DTI ratio); whether the definition should include an alternative method for assessing financial capacity; whether, if the QM definition retains a DTI ratio limit, the limit should remain 43% or be increased or decreased; and whether loans with DTI ratios above a prescribed limit should be given QM status if certain compensating factors are present. In addition, the Plan indicates that, pending legislation, the GSE Patch should expire; the CFPB should amend its ability-to-repay rule under TILA ("ATR rule") to establish a clear bright line safe harbor that replaces the GSE Patch; and the FHFA and the CFPB should continue to coordinate their efforts to avoid market disruption in connection with the expiration of the GSE Patch and the implementation of any amendments to the CFPB's ATR rule.

We may 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 "ability to repay" rules 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 rule that includes the QM definition that applies to loans insured by the FHA was issued by the Department of Housing and Urban Development ("HUD") and that definition is less restrictive than the CFPB's definition in certain respects, including that (i) it has no DTI ratio limit, and (ii) it allows the lender 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 of 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 and high DTI 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."

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 refinancings 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 4 - "Reinsurance"](#) to our consolidated financial statements for a discussion of our reinsurance transactions.

Premiums 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 agreements. Also, NIW and

cancellations during a period will generally have a greater effect on premiums written and 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, stock issuances or repurchases, or dividends.

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" in our 2018 10-K MD&A, except in the case of a premium deficiency reserve, we recognize an estimate of this expense only for delinquent loans. 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 losses incurred.
- The rate at which we rescind policies or curtail claims. Our estimated loss reserves incorporate our estimates of future rescissions of policies and curtailments of claims, and reversals of rescissions and curtailments. We collectively refer to 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 transactions. See [Note 4 - “Reinsurance”](#) to our consolidated financial statements for a discussion of our reinsurance transactions.

[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 transactions. Employee compensation expenses are variable due to share-based compensation, changes in benefits, and headcount (which can fluctuate due to volume). See [Note 4 - “Reinsurance”](#) to our consolidated financial statements for a discussion of our reinsurance transactions.

[Interest expense](#)

Interest expense primarily reflects the interest associated with our outstanding debt obligations discussed in [Note 3 - “Debt”](#) to our consolidated financial statements and under [“Liquidity and Capital Resources”](#) below.

[Other](#)

Certain activities that we do not consider part of our fundamental operating activities may also impact our results of operations and include the following.

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. Realized investment gains and losses are a function of the periodic change in fair value, as well as any OTTI recognized in earnings.

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. The amounts of adjustments to components of pre-tax operating income (loss) are tax effected using a federal statutory tax rate of 21%.

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 adjustments. 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*. Income tax expense in 2018 related to our IRS dispute 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

<i>(In thousands, except per share amounts)</i>	Three Months Ended September 30,					
	2019			2018		
	Pre-tax	Tax effect	Net (after-tax)	Pre-tax	Tax effect	Net (after-tax)
Income before tax / Net income	\$ 223,120	\$ 46,186	\$ 176,934	\$ 231,894	\$ 49,994	\$ 181,900
Adjustments:						
Additional income tax benefit (provision) related to IRS litigation	—	—	—	—	154	(154)
Net realized investment (gains) losses	(4,175)	(877)	(3,298)	(1,114)	(234)	(880)
Adjusted pre-tax operating income / Adjusted net operating income	\$ 218,945	\$ 45,309	\$ 173,636	\$ 230,780	\$ 49,914	\$ 180,866

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

Weighted average diluted shares outstanding	372,575	382,905
Net income per diluted share	\$ 0.49	\$ 0.49
Additional income tax (benefit) provision related to IRS litigation	—	— (1)
Net realized investment (gains) losses	(0.01)	— (1)
Adjusted net operating income per diluted share	\$ 0.48	\$ 0.48

(1) For the three months ended September 30, 2018, the individual adjustments are each less than \$0.01 per diluted share, but collectively aggregate to \$0.01 per diluted share.

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

<i>(In thousands, except per share amounts)</i>	Nine Months Ended September 30,					
	2019			2018		
	Pre-tax	Tax effect	Net (after-tax)	Pre-tax	Tax effect	Net (after-tax)
Income before tax / Net income	\$ 625,267	\$ 128,614	\$ 496,653	\$ 649,441	\$ 137,090	\$ 512,351
Adjustments:						
Additional income tax benefit (provision) related to IRS litigation	—	—	—	—	(1,477)	1,477
Net realized investment (gains) losses	(3,772)	(792)	(2,980)	1,112	234	878
Adjusted pre-tax operating income / Adjusted net operating income	\$ 621,495	\$ 127,822	\$ 493,673	\$ 650,553	\$ 135,847	\$ 514,706

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

Weighted average diluted shares outstanding	375,266	387,765
Net income per diluted share	\$ 1.36	\$ 1.36
Additional income tax (benefit) provision related to IRS litigation	—	—
Net realized investment (gains) losses	(0.01)	—
Adjusted net operating income per diluted share	\$ 1.35	\$ 1.36

Mortgage Insurance Portfolio

New insurance written

According to *Inside Mortgage Finance* and GSE estimates, total mortgage originations for the third quarter and first nine months of 2019, on average, are estimated to have increased from the respective prior year periods. The total amount of mortgage originations is generally influenced by the level of new and existing home sales, the percentage of homes purchased for cash, and the level of refinance activity. PMI market share of total mortgage originations is influenced by the mix of purchase and refinance originations as PMI market share is 3-4 times higher for purchase originations than refinance originations. PMI market share is also impacted by the market share of total originations of the FHA, VA, USDA, and other alternatives to mortgage insurance, including GSE programs that may reduce or eliminate the demand for mortgage insurance.

NIW for the third quarter of 2019 was \$19.1 billion (Q3 2018: \$14.5 billion) and for the first nine months of 2019 was \$44.1 billion (YTD 2018: \$38.3 billion).

The following tables present characteristics of our primary NIW for the three and nine months ended September 30, 2019 and 2018.

Primary NIW by FICO score

(% of primary NIW)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
760 and greater	46.0%	42.1%	44.3%	42.3%
740 - 759	18.7%	17.0%	18.1%	17.2%
720 - 739	13.7%	14.4%	13.8%	14.6%
700 - 719	10.3%	12.2%	11.1%	11.9%
680 - 699	6.8%	7.2%	7.1%	7.2%
660 - 679	2.5%	3.8%	3.1%	3.7%
640 - 659	1.4%	2.3%	1.7%	2.2%
639 and less	0.6%	1.0%	0.8%	1.0%

Primary NIW by loan-to-value

(% of primary NIW)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
95.01% and above	12.3%	17.4%	14.8%	15.5%
90.01% to 95.00%	43.6%	43.1%	43.1%	43.7%
85.01% to 90.00%	29.7%	28.4%	28.8%	28.7%
80.01% to 85%	14.4%	11.1%	13.3%	12.1%

Primary NIW by debt-to-income ratio (1)

(% of primary NIW)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
45.01% and above	12.3%	19.5%	14.6%	19.7%
38.01% to 45.00%	32.8%	33.7%	32.8%	32.5%
38.00% and below	54.9%	46.8%	52.6%	47.8%

(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.

The percentage of our NIW on loans with DTI ratios greater than 45% has declined in 2019, which we believe is due in part to changes in GSE underwriting guidelines and our pricing for loans with such DTI ratios. We are continuing to monitor our exposure to such loans and may take further action.

Primary NIW by policy payment type

(% of primary NIW)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Monthly premiums	84.5%	83.9%	84.3%	82.9%
Single premiums	15.4%	15.9%	15.6%	16.9%
Annual premiums	0.1%	0.2%	0.1%	0.2%

Primary NIW by type of mortgage

(% of primary NIW)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Purchases	79.8%	95.2%	85.7%	92.9%
Refinances	20.2%	4.8%	14.3%	7.1%

Insurance and risk in force

The amount of our IIF and RIF is impacted by the amount of NIW and cancellations of primary IIF during the period. 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 was 78.6% at September 30, 2019 compared to 81.7% at December 31, 2018 and 81.0% at September 30, 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.

IIF and RIF

<i>(In billions)</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
NIW	\$ 19.1	\$ 14.5	\$ 44.1	\$ 38.3
Cancellations	(14.9)	(9.4)	(35.7)	(27.4)
Increase in primary IIF	\$ 4.2	\$ 5.1	\$ 8.4	\$ 10.9

<i>(In billions)</i>	2019	2018
Direct primary IIF as of September 30,	\$ 218.1	\$ 205.8
Direct primary RIF as of September 30,	\$ 56.2	\$ 53.1

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 origination years. 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.

As shown in the following table, as of September 30, 2019 approximately 11% of our primary RIF has been modified.

Modifications

Policy year	HARP Modifications ⁽¹⁾	HAMP & Other Modifications
2003 and prior	9.4%	47.3%
2004	16.9%	52.1%
2005	25.0%	49.3%
2006	28.3%	46.4%
2007	40.8%	35.7%
2008	57.9%	22.1%
2009	49.9%	10.7%
2010 - Q3 2019	—%	0.5%
Total	5.0%	5.8%

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

As of September 30, 2019, based on loan count, the loans associated with 97.7% of HARP modifications and 80.0% of HAMP and other modifications were current.

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 aggregate of our 2009-2019 books and our HARP modifications accounted for approximately 92% of our total primary RIF at September 30, 2019.

Primary RIF

Policy Year	September 30, 2019		December 31, 2018		September 30, 2018	
	RIF	% of RIF	RIF	% of RIF	RIF	% of RIF
2009+	\$ 48,701	87%	\$ 45,083	83%	\$ 43,670	82%
2005 - 2008 (HARP)	2,646	5%	3,109	5%	3,245	6%
Other years (HARP)	119	—%	229	1%	246	1%
Subtotal	51,466	92%	48,421	89%	47,161	89%
2005- 2008 (Non-HARP)	4,025	7%	4,796	9%	5,011	9%
Other years (Non-HARP)	736	1%	846	2%	892	2%
Subtotal	4,761	8%	5,642	11%	5,903	11%
Total Primary RIF	\$ 56,227	100%	\$ 54,063	100%	\$ 53,064	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 PMI and customer demands, MGIC may write pool risk in the future. Our direct pool risk in force was \$387 million (\$214 million on pool policies with aggregate loss limits and \$173 million on pool policies without aggregate loss limits) at September 30, 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 delinquencies under the pool would be removed from our delinquent inventory.

In connection with the GSEs' CRT programs, insurance subsidiaries of MGIC provide 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 \$120 million as of September 30, 2019.

Consolidated Results of Operations

The following section of the MD&A provides a comparative discussion of MGIC Investment Corporation's Consolidated Results of Operations for the three and nine months ended September 30, 2019 and 2018.

Revenues

Revenues

(in millions)	Three Months Ended September 30,			Nine Months Ended September 30,		
	2019	2018	% Change	2019	2018	% Change
Net premiums written	\$ 259.4	\$ 251.9	3	\$ 747.3	\$ 744.2	—
Net premiums earned	\$ 267.9	\$ 250.4	7	\$ 764.7	\$ 729.5	5
Investment income, net of expenses	42.7	36.4	17	125.7	103.0	22
Net realized investment gains (losses)	4.2	1.1	N/M	4.0	(1.1)	N/M
Other revenue	3.6	2.5	43	7.9	6.8	16
Total revenues	\$ 318.4	\$ 290.4	10	\$ 902.3	\$ 838.2	8

Net premiums written and earned

Comparative quarterly results

NPW and NPE increased for the three months ended September 30, 2019 compared with the prior year reflecting 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 insurance in force and higher ceded premiums when compared to the same period of the prior year. The increase in ceded premiums was due to premiums ceded under our Home Re Transactions.

Comparative year to date results

NPW increased slightly and NPE increased for the nine months ended September 30, 2019 when compared to the prior year period primarily reflecting an increase in premiums from higher average insurance in force and an increase in premiums from single premium policy cancellations, offset in part by an increase in ceded premiums and lower premium rates on our insurance in force. The increase in ceded premiums was due to premiums ceded under our Home Re Transactions, and a higher percentage of our IIF covered by quota share reinsurance.

See "Overview - Factors Affecting Our Results" above for additional factors that influenced the amount of net premiums written and earned during the periods.

Premium yields

Net premium yield (NPE divided by average IIF) for the third quarter of 2019 was 49.6 basis points (Q3 2018: 49.3 basis points) and our net premium yield for the nine months ended September 30, 2019 was 47.8 basis points (YTD 2018: 48.9 basis points). Our net premium yield is influenced by a number of key drivers, which have a varying impact from period to period.

The following table presents the key drivers of our net premium yield for the three and nine months ended September 30, 2019 from the respective prior year periods.

Premium Yields

(Basis points)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Inforce portfolio yield (1)	51.1	52.8	51.7	52.9
Single premium policy persistency	3.5	1.3	2.2	1.3
Total direct premium yield	54.6	54.1	53.9	54.2
Ceded premiums earned, net of profit commissions and assumed premiums (2)	(5.0)	(4.8)	(6.1)	(5.3)
Net premium yield	49.6	49.3	47.8	48.9

(1) Total direct premiums earned, excluding accelerated premiums from single premium policy cancellations.

(2) Ceded premiums earned, net of profit commissions and assumed premiums. Assumed premiums include our participation in GSE CRT programs, of which the impact on total revenues was immaterial.

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

Key Driver:	Explanation:
Direct premiums earned - inforce portfolio (including premium refunds on cancellations and change in accrual)	<ul style="list-style-type: none"> è A larger percentage of our IIF is from book years with lower premium rates due to a decline in premium rates in recent years resulting from pricing competition and insuring mortgages with lower risk characteristics, and certain policies undergoing premium rate resets on their ten-year anniversaries. è Premium refunds adversely impact our premium yield and are primarily driven by claim activity and our estimate of refundable premiums on our delinquent inventory.
Single premium policy persistency	è Greater amounts of accelerated earned premium from cancellations of single premium policies prior to their estimated policy life, primarily due to increased refinancing activity.
Ceded premiums earned, net of profit commissions and assumed premiums	è More of an adverse impact as the 2019 periods include ceded premiums under our excess-of-loss reinsurance transactions (Home Re Transactions), which were not in effect in the respective prior year periods.

We expect our net premium yield to 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.

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 total effect on our pre-tax income, described as follows.

è	We cede a fixed percentage of premiums on insurance covered by the agreements.
è	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).
è	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).
è	We cede a fixed percentage of losses incurred on insurance covered by the agreements.

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. The 2019 QSR Transaction covering our 2019 NIW 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. The NIW subject to quota share reinsurance increased for the nine months ended September 30, 2019 when compared to the same period of the prior year due to the increased threshold on risk written on loans with DTI ratios greater than 45% and a decrease in the percentage of our NIW with DTI ratios greater than 45%. In the first nine months of 2018, the risk written on loans with DTI ratios greater than 45% exceeded the threshold.

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. The reduction in the cede rate resulted in a reduction to our ceded RIF but does not impact our determination of the amount of IIF subject to quota share reinsurance agreements. During the second quarter of 2019, we incurred a termination fee of \$6.8 million, which was paid in July to participants of the reinsurance panel that are not participating in the amended 2015 QSR Transaction. Under the amended terms we will generally receive a profit commission provided that the loss ratio on the covered loans remains below 68%.

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

Quota share reinsurance

(\$ in thousands, unless otherwise stated)	As of and For the Nine Months Ended September 30,	
	2019	2018
NIW subject to quota share reinsurance agreements	83%	75%
IIF subject to quota share reinsurance agreements	78%	78%

Statements of operations:

Ceded premiums written and earned, net of profit commission	\$ 87,721	\$ 79,716
% of direct premiums written	11%	10%
% of direct premiums earned	11%	10%
Profit commission	108,079	111,622
Ceding commissions	37,807	38,268
Ceded losses incurred	7,845	3,531

Mortgage insurance portfolio:

Ceded RIF (in millions)	\$ 10,807	\$ 12,581
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Excess-of-loss reinsurance

Our excess-of-loss reinsurance provides \$604.6 million of loss coverage on an existing portfolio of inforce policies having an inforce date on or after July 1, 2016 and before April 1, 2019. As of September 30, 2019, the aggregate exposed principal balances under the Home Re 2018-01 and 2019-01 transactions were approximately \$6.2 billion and \$6.6 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. We ceded premiums of \$5.4 million and \$12.4 million for the three and nine months ended September 30, 2019, respectively.

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

Investment income

Comparative quarterly and year to date results

Net investment income in the third quarter and first nine months of 2019 was \$42.7 million and \$125.7 million, respectively, up from \$36.4 million and \$103.0 million in the respective prior year periods. The increases in investment income were due to an increase in the average balance of the investment portfolio along with higher investment yields over the periods.

Losses and expenses

Losses and expenses

(In millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Losses incurred, net	\$ 34.0	\$ (1.5)	\$ 94.9	\$ 8.9
Amortization of deferred policy acquisition costs	3.1	3.2	8.4	8.6
Other underwriting and operating expenses, net	45.2	43.7	134.1	131.6
Interest expense	12.9	13.3	39.7	39.7
Total losses and expenses	\$ 95.3	\$ 58.6	\$ 277.1	\$ 188.8

Losses incurred, net

As discussed in “Critical Accounting Policies” in our 2018 10-K MD&A and consistent with industry practices, we establish 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. 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 5 – “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.

Comparative quarterly results

Losses incurred, net in the third quarter of 2019 were \$34.0 million compared to (\$1.5) million in the prior year. The increase was due to a lower amount of favorable loss reserve development on previously received delinquencies. During the third quarter of 2019 there was a \$27 million reduction in losses incurred due to positive development on our primary loss reserves, before reinsurance, for previously received delinquent notices, compared to \$59 million in the third quarter of 2018. Current year losses incurred increased due to an increase in LAE reserves and less of a decrease in IBNR reserves, offset in part by a lower claim rate on new notices when compared to the prior year.

Comparative year to date results

Losses incurred, net in the nine months ended September 30, 2019 were \$94.9 million compared to \$8.9 million in the prior year period. The increase was due to lower favorable loss reserve development on previously received delinquencies in the current year period, which includes the recognition of a probable loss of \$23.5 million for litigation of our claims paying practices. Losses incurred on current year delinquencies declined due to a lower estimated claim rate on delinquencies that occurred in the current year when compared to the prior year.

Composition of losses incurred

(In millions)	Three Months Ended September 30,			Nine Months Ended September 30,		
	2019	2018	% Change	2019	2018	% Change
Current year / New notices	\$ 48.6	\$ 47.4	2	\$ 142.6	\$ 155.8	(8)
Prior year reserve development	(14.6)	(49.0)	(70)	(47.8)	(146.9)	(67)
Losses incurred, net	\$ 34.0	\$ (1.5)	N/M	\$ 94.9	\$ 8.9	N/M

Loss ratio

The loss ratio is the ratio, expressed as a percentage, of the sum of incurred losses and loss adjustment expenses to net premiums earned. The increase in the loss ratio for the three and nine months ended September 30, 2019 compared to the respective prior year periods was primarily due to an increase in losses incurred, net, offset in part by an increase in net premiums earned.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Loss ratio	12.7%	(0.6)%	12.4%	1.2%

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

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2019		2018		2019		2018	
New notices - 2008 and prior (1)	8,614	61%	9,704	72%	26,069	64%	29,384	73%
New notices - 2009 and later	5,405	39%	3,865	28%	14,476	36%	10,967	27%
Total	14,019	100%	13,569	100%	40,545	100%	40,351	100%
Claim rate	8.0%		9.0%		8.0%		9.0%	
(1) previously delinquent %	94.0%		94.0%		94.0%		93.0%	

Claims severity

Factors that impact claim severity include:

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

As discussed in [Note 11 - "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 received, and expected to be received in 2019, compared to an average of 37 missed payments at the claim received date for claims paid in 2018. 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 56% 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.

Claims severity trend for claims paid during the period

Period	Average exposure on claim paid	Average claim paid	% Paid to exposure	Average number of missed payments at claim received date
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 disputes for claims paying practices and commutations of pools of NPLs.

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 reserves and, correspondingly, on our consolidated results of operations even in a stable economic environment. For example, as of September 30, 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 1 percentage point increase/decrease in the average claim rate reserve factor would change the reserve amount by approximately +/- \$17 million.

See [Note 11 - "Loss Reserves"](#) to our consolidated financial statements for a discussion of our losses incurred and claims paying practices (including curtailments).

The length of time a loan is in the delinquent inventory (see Note 11- "Loss Reserves," table 11.4) 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.

Delinquent inventory - number of payments delinquent

	September 30, 2019	December 31, 2018	September 30, 2018
3 payments or less	14,690	15,519	14,813
4-11 payments	8,225	8,842	9,156
12 payments or more (1)	7,025	8,537	9,429
Total	29,940	32,898	33,398
3 payments or less	49%	47%	44%
4-11 payments	27%	27%	27%
12 payments or more	24%	26%	28%
Total	100%	100%	99%

(1) Approximately 34%, 38%, and 39% of the primary delinquent inventory with 12 payments or more delinquent has at least 36 payments delinquent as of September 30, 2019, December 31, 2018, and September 30, 2018, respectively.

Net losses and LAE paid

Net losses and LAE paid in the three and nine months ended September 30, 2019 declined 37% and 41%, respectively, compared to the same periods in the prior year due to lower claim activity on our primary business and NPL settlement activity in the prior year.

The following table presents our net losses and LAE paid for the three and nine months ended September 30, 2019 and 2018.

Net losses and LAE paid

(In millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Total primary (excluding settlements)	\$ 47	\$ 65	\$ 151	\$ 220
Claims paying practices and NPL settlements (1)	4	19	4	40
Pool	1	2	2	5
Direct losses paid	52	86	157	265
Reinsurance	(2)	(3)	(7)	(17)
Net losses paid	50	83	150	248
LAE	5	4	17	12
Net losses and LAE paid	\$ 55	\$ 87	\$ 167	\$ 260
Reinsurance terminations	—	—	(14)	(2)
Net losses and LAE paid	\$ 55	\$ 87	\$ 153	\$ 258

(1) See Note 11 - "Loss Reserves" for additional information on our settlements of disputes for claims paying practices and commutations of NPLs.

Primary claims paid for the top 15 jurisdictions (based on 2019 losses paid) and all other jurisdictions for the three and nine months ended September 30, 2019 and 2018 appears in the following table.

Paid losses by jurisdiction

(In millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Florida	\$ 6	\$ 8	\$ 21	\$ 22
New York	5	7	19	25
New Jersey	5	8	17	34
Illinois	4	4	10	15
Puerto Rico	3	2	9	5
Maryland	3	3	8	13
Pennsylvania	2	3	6	9
Ohio	2	2	5	7
Connecticut	2	1	5	5
California	2	3	5	9
Texas	1	1	3	4
Michigan	1	1	3	4
Virginia	—	1	3	5
Wisconsin	1	1	2	3
Georgia	1	1	2	4
All other jurisdictions	9	19	33	56
Total primary (excluding settlements)	\$ 47	\$ 65	\$ 151	\$ 220

The primary average claim paid for the top 5 states (based on 2019 losses paid) for the three and nine months ended September 30, 2019 and 2018 appears in the following table.

Primary average claim paid

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Florida*	\$ 57,176	\$ 56,753	\$ 63,678	\$ 58,131
New York*	78,289	106,604	98,854	99,603
New Jersey*	82,537	80,806	80,750	89,236
Illinois*	47,867	41,458	42,491	43,569
Puerto Rico*	45,418	49,437	43,911	48,277
All other jurisdictions	35,159	38,642	34,474	39,900
All jurisdictions	44,388	47,230	45,055	49,581

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 at September 30, 2019, December 31, 2018 and September 30, 2018 and for the top 5 jurisdictions (based on 2019 losses paid) appears in the following table.

Primary average RIF - delinquent loans

	September 30, 2019	December 31, 2018	September 30, 2018
Florida	\$ 53,895	\$ 53,371	\$ 54,533
New York	72,343	71,795	71,486
New Jersey	64,754	65,521	66,078
Illinois	39,649	39,753	40,462
Puerto Rico	34,013	35,420	35,390
All other jurisdictions	42,209	41,331	41,298
All jurisdictions	45,152	44,584	44,818

The primary average RIF on all loans was \$52,291, \$51,085, and \$50,629 at September 30, 2019, December 31, 2018, and September 30, 2018, respectively.

Loss reserves

Our primary delinquency rate at September 30, 2019 was 2.78% (YE 2018: 3.11%, September 30, 2018: 3.19%). Our primary delinquent inventory was 29,940 loans at September 30, 2019, representing a decrease of 9% from December 31, 2018 and 10% from September 30, 2018. 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 coverage of pools of NPLs, collectively, exceeding the total number of new delinquencies on insured loans. In recent periods, we have experienced improved cure rates and the number of delinquencies in inventory with twelve or more missed payments has been declining. Generally, a defaulted loan with fewer missed payments is less likely to result in a claim.

Our delinquent inventory increased slightly during the third quarter of 2019 as our larger, more recently written book years are entering their expected peak loss years.

The gross reserves at September 30, 2019, December 31, 2018, and September 30, 2018 appear in the table below.

Gross reserves

	September 30, 2019	December 31, 2018	September 30, 2018
Primary:			
Direct loss reserves (in millions)	\$ 508	\$ 610	\$ 652
IBNR and LAE	83	50	55
Total primary loss reserves	\$ 591	\$ 660	\$ 707
Ending delinquent inventory	29,940	32,898	33,398
Percentage of loans delinquent (delinquency rate)	2.78%	3.11%	3.19%
Average total primary loss reserves per delinquency	\$ 18,955	\$ 20,077	\$ 21,184
Primary claims received inventory included in ending delinquent inventory	557	809	766
Pool (1):			
Direct loss reserves (in millions):			
With aggregate loss limits	\$ 8	\$ 10	\$ 9
Without aggregate loss limits	3	3	4
Total pool direct loss reserves	\$ 11	\$ 13	\$ 13
Ending default inventory:			
With aggregate loss limits	425	595	752
Without aggregate loss limits	230	264	280
Total pool ending delinquent inventory	655	859	1,032
Pool claims received inventory included in ending delinquent inventory	24	24	43
Other gross 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 delinquency for our pool business.

The primary delinquent inventory for the top 15 jurisdictions (based on 2019 losses paid) at September 30, 2019, December 31, 2018 and September 30, 2018 appears in the following table.

Primary delinquent inventory by jurisdiction

	September 30, 2019	December 31, 2018	September 30, 2018
Florida*	2,467	2,853	3,088
New York*	1,681	1,855	1,934
New Jersey*	1,002	1,151	1,212
Illinois*	1,692	1,781	1,836
Puerto Rico*	1,175	1,503	1,725
Maryland	789	842	864
Pennsylvania*	1,805	1,929	1,971
Ohio*	1,489	1,627	1,658
Connecticut*	480	480	491
California	1,179	1,260	1,235
Texas	2,199	2,369	2,402
Michigan	937	1,041	1,016
Virginia	622	588	587
Wisconsin*	653	726	709
Georgia	1,110	1,220	1,205
All other jurisdictions	10,660	11,673	11,465
Total	29,940	32,898	33,398

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 delinquent inventory by policy year at September 30, 2019, December 31, 2018 and September 30, 2018 appears in the following table.

Primary delinquent inventory by policy year

	September 30, 2019	December 31, 2018	September 30, 2018
Policy year:			
2004 and prior	5,142	6,061	6,408
<i>2004 and prior %</i>	<i>17%</i>	<i>18%</i>	<i>19%</i>
2005	2,907	3,340	3,559
2006	4,652	5,299	5,617
2007	7,242	8,702	9,008
2008	1,818	2,369	2,431
<i>2005 - 2008 %</i>	<i>56%</i>	<i>60%</i>	<i>62%</i>
2009	156	172	199
2010	116	121	126
2011	143	159	176
2012	242	312	308
2013	502	592	595
2014	1,061	1,264	1,182
2015	1,336	1,418	1,338
2016	1,505	1,459	1,308
2017	1,747	1,282	1,007
2018	1,198	348	136
2019	173	—	—
<i>2009 and later %</i>	<i>27%</i>	<i>22%</i>	<i>19%</i>
Total	29,940	32,898	33,398

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 represented approximately 12% and 15% of our total primary RIF at September 30, 2019 and December 31, 2018, respectively. Approximately 39% of the remaining primary RIF on our 2005 through 2008 books of business benefited from HARP as of both September 30, 2019 and December 31, 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 September 30, 2019, 54% of our primary RIF was written subsequent to December 31, 2016, 67% of our primary RIF was written subsequent to December 31, 2015, and 76% 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.

Underwriting and other expenses, net for the three and nine months ended September 30, 2019 were \$45.2 million and \$134.1 million, respectively, increases from \$43.7 million and \$131.6 million in the respective prior year periods primarily due to increases in benefits expenses and a reduction in ceding commissions.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Underwriting expense ratio	17.7%	17.6%	18.1%	17.8%

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 subsidiaries) to NPW. The underwriting expense ratio in the three months ended September 30, 2019 was relatively flat compared with the prior year period. The increase in the ratio for the nine months ended September 30, 2019 was primarily due to an increase in underwriting expenses partially offset by slightly higher NPW when compared to the same periods in the prior year.

Provision for income taxes and effective tax rate

Income tax provision and effective tax rate

(In millions, except rate)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Income before tax	\$ 223.1	\$ 231.9	\$ 625.3	\$ 649.4
Provision for income taxes	\$ 46.2	\$ 50.0	\$ 128.6	\$ 137.1
Effective tax rate	20.7%	21.6%	20.6%	21.1%

Balance Sheet Review

Total assets, liabilities, and shareholders' equity

As of September 30, 2019, total assets were \$6.1 billion, an increase of \$0.5 billion, and total liabilities were \$2.0 billion, down \$0.1 billion, each when compared to December 31, 2018. Shareholders' equity increased approximately \$0.6 billion primarily due to net income in the first nine months of 2019 and an increase in the fair value of our investment portfolio, offset in part by repurchases of our common stock and dividends paid.

The following sections mainly focus on our cash and cash equivalents, investments, deferred income taxes, net, and loss reserves as these reflect the major developments in our assets and liabilities since December 31, 2018.

Consolidated balance sheets - Assets

as of September 30, 2019 (In thousands)



• Cash and cash equivalents	\$	171,754
• Investments		5,681,452
• Premiums receivable		51,804
• Deferred income taxes, net		11,583
• Other assets		230,158

Cash and cash equivalents (including restricted) - Our cash and cash equivalents balance increased to \$172 million as of September 30, 2019, from \$155 million as of December 31, 2018, as net cash generated from operating activities was only partly offset by net cash used in investing and financing activities.

Deferred income taxes, net - The decrease in our deferred income taxes, net, to \$12 million as of September 30, 2019, from \$69 million as of December 31, 2018, was primarily due to the tax effect of unrealized gains generated by the investment portfolio during the first nine months of 2019.

Consolidated balance sheets - Liabilities and equity

as of September 30, 2019 (In thousands)



• Loss reserves	\$	602,297
• Unearned premiums		392,556
• Long-term debt		832,450
• Other liabilities		159,831
• Shareholders' equity		4,159,617

Loss reserves - Our loss reserves include: (1) reserves representing estimates of losses and settlement expenses on reported delinquencies and (2) IBNR. Our gross reserves are reduced by reinsurance recoverable on our estimated losses and settlement expenses to calculate a net reserve balance. The net reserve balance decreased by 9% to \$583 million as of September 30, 2019, from \$641 million as of December 31, 2018. Reinsurance recoverables on our estimated losses and settlement expenses were \$20 million and \$33 million as of September 30, 2019 and December 31, 2018, respectively. The overall decrease in our loss reserves during the first nine months of 2019 was due to losses paid exceeding losses incurred.

Investment portfolio

The average duration and investment yield of our investment portfolio as of September 30, 2019, December 31, 2018, and September 30, 2018 are shown in the table below.

Portfolio duration and embedded investment yield

	September 30, 2019	December 31, 2018	September 30, 2018
Duration (in years)	4.0	4.1	4.2
Pre-tax yield (1)	3.1%	3.1%	3.0%
After-tax yield (1)	2.6%	2.6%	2.5%

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

The security ratings of our fixed income investments as of September 30, 2019, December 31, 2018, and September 30, 2018 are shown in the following table.

Fixed income security ratings

Period	Security Ratings (1)			
	AAA	AA	A	BBB
September 30, 2019	21%	21%	34%	24%
December 31, 2018	19%	23%	33%	25%
September 30, 2018	20%	23%	35%	22%

(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 utilized; otherwise the lowest rating is utilized.

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 4 - "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 our consolidated cash flows from operating, investing and financing activities:

Summary of consolidated cash flows

(In thousands)	Nine Months Ended September 30,	
	2019	2018
Total cash provided by (used in):		
Operating activities	\$ 458,163	\$ 383,547
Investing activities	(308,966)	(108,211)
Financing activities	(132,481)	(108,190)
Increase in cash and cash equivalents and restricted cash and cash equivalents	\$ 16,716	\$ 167,146

Net cash provided by operating activities for the nine months ended September 30, 2019 increased compared to the same period of 2018 primarily due to a lower level of losses paid, net, offset in part by an increase in tax payments.

Net cash used in investing activities for the nine months ended September 30, 2019 reflects purchases of fixed income and equity securities in amounts that exceeded our proceeds from sales and maturities of fixed income securities during the period as cash from operations was available for additional investment, as well as, amounts spent on property and equipment.

Net cash used in investing activities for the nine months ended September 30, 2018 reflects purchases of fixed income securities in an amount that exceeded our proceeds from the sales and maturities of fixed income securities during the period as cash from operations was available for additional investment, as well as, amounts spent on property and equipment.

Net cash used in financing activities for the nine months ended September 30, 2019 reflects share repurchases during the period in addition to the cash settlement of share repurchase transactions executed at the end of the fourth quarter of 2018, cash dividends paid to shareholders, and payments of withholding taxes related to share-based compensation net share settlement.

Net cash used in financing activities for the nine months ended September 30, 2018 reflects share repurchases and the payment of withholding taxes related to share-based compensation net share settlement.

Capitalization

Debt - holding company

As of September 30, 2019, our holding company's debt obligations were \$814.5 million in aggregate principal consisting of our 5.75% Notes and 9% Debentures. 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.

Liquidity analysis - holding company

As of September 30, 2019, we had approximately \$308 million 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.

In the third quarter of 2019 we used \$69 million of holding company cash to repurchase shares and 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, privately negotiated acquisitions or other transactions. See ["Overview - Capital"](#) of this MD&A for a discussion of the additional share repurchase program authorized in March 2019.

In the third quarter of 2019 we used \$21 million to pay cash dividends to shareholders. On October 24, 2019, our Board of Directors declared a quarterly cash dividend of \$0.06 per common share to shareholders of record on November 11, 2019, payable on November 25, 2019.

In the first nine months of 2019, our holding company cash and investments increased by \$60 million, to \$308 million as of September 30, 2019.

Cash and investments *inflows* during the first nine months:

- \$210 million of dividends received from MGIC,
- \$10 million of investment income, and
- \$9 million of other inflows.

Cash *outflows* during the first nine months:

- \$42 million of interest payments on our 5.75% Notes and 9% Debentures,
- \$94 million of share repurchase transactions,
- \$12 million for share repurchase transactions in 2018 that settled in the first quarter of 2019, and
- \$21 million in cash dividends paid to shareholders.

We expect MGIC to pay dividends of at least \$280 million in 2020, subject to approval by MGIC's Board of Directors. We ask the OCI not to object before MGIC pays dividends.

The net unrealized gains on our holding company investment portfolio were approximately \$2.8 million at September 30, 2019 and the portfolio had a modified duration of approximately 1.8 years.

Subject to certain limitations and restrictions, holders of each of the 9% Debentures may convert their notes into shares of our common stock at their option prior to certain dates under the terms of their issuance, in which case our corresponding obligation will be eliminated.

See Note 7 – “Debt” to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2018 for additional information about the conversion terms of our 9% Debentures and the terms of our indebtedness, including our option to defer interest on our 9% Debentures. The description in Note 7 – “Debt” to our consolidated financial statements in our Annual Report on Form 10-K is qualified in its entirety by the terms of the notes and debentures.

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 discussion of our non-insurance contract underwriting services in [Note 5 – “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, which provides MGIC access to an additional source of liquidity via a secured lending facility. MGIC has \$155 million of debt outstanding in the form of a fixed rate advance from the FHLB. 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

fair value is maintained at a minimum of 102% of the outstanding principal balance. MGIC provided eligible collateral from its investment portfolio.

Capital Adequacy

PMIERS

As of September 30, 2019, MGIC's Available Assets under the more restrictive application of the PMIERS totaled approximately \$4.5 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 Available Assets will allow MGIC to remain in compliance with the PMIERS financial requirements, including, we believe, to the extent they are revised. Our reinsurance transactions provided an aggregate of approximately \$1.3 billion of capital credit under the more restrictive application of the PMIERS as of September 30, 2019. Refer to [Note 4 - “Reinsurance”](#) to our consolidated financial statements for additional information on our QSR and Home Re 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. Refer to “[Overview - Capital - GSEs](#)” of this MD&A for further discussion of PMIERS.

Risk-to-capital

We compute our risk-to-capital ratio on a separate company statutory basis, as well as on a combined insurance operation basis. The risk-to-capital ratio is our net RIF divided by our policyholders' position. Our net RIF includes both primary and pool risk in force and excludes risk on policies that are currently in default and for which loss reserves have been established, and those 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 the 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.

MGIC's separate company risk-to-capital calculation is shown in the table below.

Risk-to-capital - MGIC separate company

<i>(In millions, except ratio)</i>	September 30,		December 31, 2018
	2019		
RIF - net (1)	\$	43,842	\$ 34,502
Statutory policyholders' surplus		1,632	1,682
Statutory contingency reserve		2,817	2,138
Statutory policyholders' position	\$	4,449	\$ 3,820
Risk-to-capital		9.9:1	9.0:1

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

Our combined insurance companies' risk-to-capital calculation is shown in the table below.

Risk-to-capital - Combined insurance companies

<i>(In millions, except ratio)</i>	September 30,		December 31, 2018
	2019		
RIF - net (1)	\$	43,998	\$ 40,239
Statutory policyholders' surplus		1,634	1,683
Statutory contingency reserve		2,877	2,443
Statutory policyholders' position	\$	4,511	\$ 4,126
Risk-to-capital		9.8:1	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 September 30, 2019 and \$1.6 billion at December 31, 2018) for which loss reserves have been established.

The increase in MGIC's risk-to-capital in the first nine months of 2019 was due to an increase in our RIF, net of reinsurance, partially offset by an increase in statutory policyholders' position due to an increase in statutory contingency reserves and the commutation of an affiliate reinsurance agreement. Our combined insurance companies' risk-to-capital in the first nine months of 2019 was flat. Our RIF, net of reinsurance, increased in the first nine months of 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 increase if the percentage increase in net insured risk exceeds the percentage increase in 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 September 30, 2019, the approximate future payments under our contractual obligations and estimated claim payments on established loss reserves.

Contractual obligations

(In millions)	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Long-term debt obligations	\$ 1,962.3	\$ 50.9	\$ 101.1	\$ 651.8	\$ 1,158.5
Operating lease obligations	2.0	1.2	0.7	0.1	—
Purchase obligations	6.9	4.9	1.8	0.2	—
Other long-term liabilities	602.3	225.9	273.4	103.0	—
Total	\$ 2,573.5	\$ 282.9	\$ 377.0	\$ 755.1	\$ 1,158.5

Our long-term debt obligations as of September 30, 2019 include their related interest and are discussed in [Note 3 - "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 in our Annual Report on Form 10-K for the year ended December 31, 2018. Purchase obligations consist primarily of agreements to purchase items related to our corporate headquarters update and continued investment in our information technology infrastructure in the normal course of business.

Our other long-term liabilities represent the 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 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 11 - "Loss Reserves"](#) to our consolidated financial statements. In accordance with GAAP for the mortgage insurance industry, we establish 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.

Forward Looking Statements and Risk Factors

General: Our business, results of operations, and financial condition could be affected by the risk factors referred to under "Location of Risk Factors" below. These risk factors are an integral part of Management's Discussion and Analysis.

These 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. Among others, statements that include words such as we "believe," "anticipate" or "expect," or words of similar import, are forward looking statements. We are not undertaking any obligation to update any forward looking statements we may make even though these statements may be affected by events or circumstances occurring after the forward looking 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 this document was filed with the Securities and Exchange Commission.

While we communicate with security analysts from time to time, it is against our policy to disclose to them any material non-public information or other confidential information. Accordingly, investors should not assume that we agree with any statement or report issued by any analyst irrespective of the content of the statement or report, and such reports are not our responsibility.

Location of Risk Factors: The risk factors are in Item 1 A of our Annual Report on Form 10-K for the year ended December 31, 2018, as supplemented by Part II, Item 1 A of our Quarterly Report on Form 10-Q for the quarters ended June 30, 2019 and March 31, 2019, and by Part II, Item 1A of this Quarterly Report on Form 10-Q. The risk factors in the 10-K, as supplemented by this 10-Q and through updating of various statistical and other information, are reproduced in Exhibit 99 to this Quarterly Report on Form 10-Q.

Item 3. 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. Guideline and investment portfolio detail is available in "Business – Section C, Investment Portfolio" in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2018.

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 this exposure is modified duration. Modified duration measures the price sensitivity of the assets to the changes in spreads. At September 30, 2019, the modified duration of our fixed income investment portfolio was 4.0 years, which means that an instantaneous parallel shift in the yield curve of 100 basis points would result in a change of 4.0% 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. See [Note 7 – "Investments"](#) to our consolidated financial statements for additional disclosure surrounding our investment portfolio.

Item 4. Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended), as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on such evaluation, our principal executive officer and principal financial officer concluded that such controls and procedures were effective as of the end of such period. There was no change in our internal control over financial reporting that occurred during the third quarter of 2019 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

Certain legal proceedings arising in the ordinary course of business may be filed or pending against us from time to time. For information about such legal proceedings, you should review our risk factor titled "We are involved in legal proceedings and are subject to the risk of additional legal proceedings in the future" in Exhibit 99.

Item 1 A. Risk Factors

With the exception of the changes described and set forth below, there have been no material changes in our risk factors from the risk factors disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, as supplemented by Part II, Item I A of our Quarterly Reports on Form 10-Q for the Quarters ended March 31, 2019 and June 30, 2019. The risk factors in the 10-K, as supplemented by those 10-Qs and this 10-Q, and through updating of various statistical and other information, are reproduced in their entirety in Exhibit 99 to this Quarterly Report on Form 10-Q.

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 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.

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 rates (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").

In the first quarter of 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 a limited period of time. As a result, our volume may fluctuate more than it had in the past.

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.*"

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). Regarding the concentration of our new business, our largest customer accounted for approximately 5% and 7% of our NIW, and our top ten customers accounted for approximately 24% and 26% of our NIW, in each of 2018 and the first nine months of 2019, respectively.

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 new insurance written.

- 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 mortgage 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.

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.

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. Lenders generally have used private mortgage insurance to satisfy this credit enhancement requirement. (For information about GSE programs initiated in 2018 that provide for loan level default coverage by various (re)insurers (which may include affiliates of private mortgage insurers), 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."*) Because low down payment mortgages purchased by the GSEs have generally been insured with private mortgage insurance, the business practices of the GSEs greatly impact our business and include:

- the GSEs' private mortgage insurer eligibility requirements, 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 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 Federal Housing Finance Agency ("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. It does not refer to mortgage insurance explicitly; however, it refers to a requirement for credit enhancement on high LTV 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% 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. In July 2019, the CFPB released an Advanced Notice of Proposed Rulemaking on the QM definition. The director of the CFPB indicated that the CFPB would consider only a short-term extension of the GSE Patch. Approximately 30%, 24% and 22% of our NIW in the first, second and third quarters of 2019, respectively, was on loans with DTI ratios greater than 43%. However, it is possible that not all future loans with DTI ratios greater than 43% will be affected by a sunset of the GSE Patch, in part because the standard QM definition may be liberalized under the new rules. In this regard, we note that the CFPB asked for comment about whether the definition of QM should retain a direct measure of a consumer's personal finances (for example, DTI ratio); whether the definition should include an alternative method for assessing financial capacity; whether, if the QM definition retains a DTI ratio limit, the limit should remain 43% or be increased or decreased; and whether loans with DTI ratios above a prescribed limit should be given QM status if certain compensating factors are present. In addition, the Plan indicates that, pending legislation, the GSE Patch should expire; the CFPB should amend its ability-to-repay rule under TILA ("ATR rule") to establish a clear bright line safe harbor that replaces the GSE Patch; and the FHFA and the CFPB should continue to coordinate their efforts to avoid market disruption in connection with the expiration of the GSE Patch and the implementation of any amendments to the CFPB's ATR rule.

We may 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 "ability to repay" rules 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 rule that includes the QM definition that applies to loans insured by the FHA was issued by the Department of Housing and Urban Development ("HUD") and that definition is less restrictive than the CFPB's definition in certain respects, including that (i) it has no DTI ratio limit, and (ii) it allows the lender 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 and high DTI 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 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 our information technology systems may become outdated and we may not be able to make timely modifications to support our products and services.” For more details about the various ways in which our subsidiaries are regulated, see “Business - Regulation” in Item 1 of our Annual Report on Form 10-K filed with the SEC on February 22, 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.

In December 2013, Treasury's Federal Insurance Office released a report that calls for federal standards and oversight for mortgage insurers to be developed and implemented. It is uncertain if and when the standards and oversight will be developed and become effective, and what form they will take.

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 September 30, 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 74.0741 common shares per \$1,000 principal amount of debentures. This represents a conversion price of approximately \$13.50 per share. The payment of dividends by our holding company will result in an adjustment to the conversion rate and price at the end of 2019.

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 \$17.55 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 in our Annual Report on Form 10-K filed with the SEC on February 22, 2019. 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.

Item 2. Unregistered Sale of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

The following table provides information about purchases of MGIC Investment Corporation common stock by us during the three months ended September 30, 2019.

Share repurchases

Period Beginning	Period Ending	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	Approximate dollar value of shares that may yet be purchased under the programs ⁽¹⁾
July 1, 2019	July 31, 2019	28,723	\$ 12.96	28,723	\$ 199,627,750
August 1, 2019	August 31, 2019	4,362,776	\$ 12.52	4,362,776	\$ 145,001,432
September 1, 2019	September 30, 2019	1,082,326	\$ 13.11	1,082,326	\$ 130,815,385
		<u>5,473,825</u>	<u>\$ 12.64</u>	<u>5,473,825</u>	

(1) On March 19, 2019, our Board of Directors authorized a share repurchase program under which we may repurchase up to \$200 million of our common stock through the end of 2020. Repurchases may be made from time to time on the open market or through privately negotiated transactions. The repurchase program may be suspended for periods or discontinued at any time.

Item 6. Exhibits

The accompanying Index to Exhibits is incorporated by reference in answer to this portion of this Item, and except as otherwise indicated in the next sentence, the Exhibits listed in such Index are filed as part of this Form 10-Q. Exhibit 32 is not filed as part of this Form 10-Q but accompanies this Form 10-Q.

(Part II, Item 6)

Index to exhibits

Exhibit Number	Description of Exhibit
31.1	Certification of CEO under Section 302 of Sarbanes-Oxley Act of 2002 †
31.2	Certification of CFO under Section 302 of Sarbanes-Oxley Act of 2002 †
32	Certification of CEO and CFO under Section 906 of Sarbanes-Oxley Act of 2002 (as indicated in Item 6 of Part II, this Exhibit is not being "filed") ††
99	Risk Factors included in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018, as supplemented by Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarters ended March 31, 2019, June 30, 2019 and September 30, 2019, and through updating of various statistical and other information †
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Denotes a management contract or compensatory plan.

† Filed herewith.

†† Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized, on November 6, 2019.

MGIC INVESTMENT CORPORATION

/s/ Nathaniel H. Colson

Nathaniel H. Colson
Executive Vice President and
Chief Financial Officer

/s/ Julie K. Sperber

Julie K. Sperber
Vice President, Controller and Chief Accounting Officer

Exhibit 31.1
CERTIFICATIONS

I, Timothy J. Mattke, certify that:

1. I have reviewed this quarterly report on Form 10-Q of MGIC Investment Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 6, 2019

/s/ Timothy J. Mattke
Timothy J. Mattke
Chief Executive Officer

CERTIFICATIONS

I, Nathan H. Colson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of MGIC Investment Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 6, 2019

/s/ Nathan H. Colson
Nathan H. Colson
Chief Financial Officer

SECTION 1350 CERTIFICATIONS

The undersigned, Timothy J. Mattke, Chief Executive Officer of MGIC Investment Corporation (the "Company"), and Nathan H. Colson, Chief Financial Officer of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S. C. Section 1350, that to our knowledge:

- (1) the Quarterly Report on Form 10-Q of the Company for the three months ended September 30, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 6, 2019

/s/ Timothy J. Mattke

Timothy J. Mattke
Chief Executive Officer

/s/ Nathan H. Colson

Nathan H. Colson
Chief Financial Officer

Risk Factors

Risk Factors included in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018, as supplemented by Part II, Item 1A of our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2019, June 30, 2019, and September 30, 2019, and through updating of various statistical and other information.

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.

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 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.

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 rates (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”).

In the first quarter of 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 a limited period of time. As a result, our volume may fluctuate more than it had in the past.

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.”*

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). Regarding the concentration of our new business, our largest customer accounted for approximately 5% and 7% of our NIW, and our top ten customers accounted for approximately 24% and 26% of our NIW, in each of 2018 and the first nine months of 2019, respectively.

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 new insurance written.
- 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 mortgage 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:

- lenders using FHA, VA and other government mortgage insurance programs,
- 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, and
- lenders originating mortgages using piggyback structures to avoid private mortgage insurance, such as a first mortgage with an 80% loan-to-value ratio and a second mortgage with a 10%, 15% or 20% loan-to-value 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% loan-to-value ratio that has private mortgage insurance.

In 2018, Freddie Mac and Fannie Mae initiated 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 FHA's share of the low down payment residential mortgages that were subject to FHA, VA, USDA or primary private mortgage insurance was 29.0% in the first half of 2019, 30.5% in 2018 and 33.9% in 2017. In the past ten years, the FHA's share has been as low as 29.0% in 2019 and as high as 66.8% in 2009. 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 22.6% in the first half of 2019, 22.9% in 2018 and 24.7% in 2017. In the past ten years, the VA's share has been as low as 14.3% in 2009 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% loan-to-value ratio ("LTV") 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.

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. Lenders generally have used private mortgage insurance to satisfy this credit enhancement requirement. (For information about GSE programs initiated in 2018 that provide for loan level default coverage by various (re)insurers (which may include affiliates of private mortgage insurers), 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."*) Because low down payment mortgages purchased by the GSEs have generally been insured with private mortgage insurance, the business practices of the GSEs greatly impact our business and include:

- the GSEs' private mortgage insurer eligibility requirements, 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 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 Federal Housing Finance Agency ("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. It does not refer to mortgage insurance explicitly; however, it refers to a requirement for credit enhancement on high LTV 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% 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. In July 2019, the CFPB released an Advanced Notice of Proposed Rulemaking on the QM definition. The director of the CFPB indicated that the CFPB would consider only a short-term extension of the GSE Patch. Approximately 30%, 24% and 22% of our NIW in the first, second and third quarters of 2019, respectively, was on loans with DTI ratios greater than 43%. However, it is possible that not all future loans with DTI ratios greater than 43% will be affected by a sunset of the GSE Patch, in part because the standard QM definition may be liberalized under the new rules. In this regard, we note that the CFPB asked for comment about whether the definition of QM should retain a direct measure of a consumer's personal finances (for example, DTI ratio); whether the definition should include an alternative method for assessing financial capacity; whether, if the QM definition retains a DTI ratio limit, the limit should remain 43% or be increased or decreased; and whether loans with DTI ratios above a prescribed limit should be given QM status if certain compensating factors are present. In addition, the Plan indicates that, pending legislation, the GSE Patch should expire; the CFPB should amend its ability-to-repay rule under TILA ("ATR rule") to establish a clear bright line safe harbor that replaces the GSE Patch; and the FHFA and the CFPB should continue to coordinate their efforts to avoid market disruption in connection with the expiration of the GSE Patch and the implementation of any amendments to the CFPB's ATR rule.

We may 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 "ability to repay" rules 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 rule that includes the QM definition that applies to loans insured by the FHA was issued by the Department of Housing and Urban Development ("HUD") and that definition is less restrictive than the CFPB's definition in certain respects, including that (i) it has no DTI ratio limit, and (ii) it allows the lender 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 and high DTI 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 are calculated from tables of factors with several risk dimensions and are subject to a floor amount).

Based on our interpretation of the more restrictive application of PMIERS, as of September 30, 2019, MGIC's Available Assets totaled \$4.5 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 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 amend the PMIERS at any time and may make the PMIERS more onerous in the future. The GSEs have indicated that there may be potential future implications for PMIERS based upon feedback the FHFA receives on its June 2018 proposed rule on regulatory capital requirements 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 the capital requirements will be finalized no earlier than the end of 2019 and may not be finalized until Spring 2020. Further, any changes to the GSEs' capital and liquidity requirements resulting from the Treasury Housing Reform Plan could have future implications for PMIERS. In addition, the PMIERS provide that the factors that determine Minimum Required Assets will be updated every two years and may be updated more frequently to reflect changes in macroeconomic conditions or loan performance. The GSEs have indicated that they will generally provide notice 180 days prior to the effective date of such updates.
- 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. While on an overall basis, the amount of Available Assets that MGIC must hold in order to continue to insure GSE loans is greater under the PMIERS than what state regulation currently requires, these reinsurance transactions mitigate the negative effect of the PMIERS on our returns. 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 the first nine months of 2019, curtailments reduced our average claim paid by approximately 5.8% and 4.7%, 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. Where we have determined that a loss is probable and can be reasonably estimated, we have recorded our best estimate of our probable loss, including recording a probable loss of \$23.5 million in the first quarter of 2019. Until settlement negotiations or legal proceedings for which we have recorded a probable loss are concluded (including the receipt of any necessary GSE approvals), it is reasonably possible that we will record an additional loss. In addition to matters for which we have recorded a probable loss, we are involved in other 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 \$264 million more than the amount of probable loss we have recorded. 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 the third quarter of 2019, we entered into an agreement to settle a claims paying practices dispute for which we previously had recognized a probable loss. 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. The agreement remains subject to GSE approval.

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 our information technology systems may become outdated and we may not be able to make timely modifications to support our products and services." For more details about the various ways in which our subsidiaries are regulated, see "Business - Regulation" in Item 1 of our Annual Report on Form 10-K filed with the SEC on February 22, 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.

In December 2013, Treasury's Federal Insurance Office released a report that calls for federal standards and oversight for mortgage insurers to be developed and implemented. It is uncertain if and when the standards and oversight will be developed and become effective, and what form they will take.

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 Item 1 of our Annual Report on Form 10-K filed with the SEC on February 22, 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 new risk-based pricing system), determine the techniques used to underwrite insurance, calculate 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 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 reserves, we estimate the ultimate loss on delinquent loans using estimated claim rates and claim amounts. The estimated claim rates and claim amounts 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,
- the rate of home price appreciation, which in times of heavy refinancing can affect whether refinanced loans have loan-to-value 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 September 30, 2019, MGIC's risk-to-capital ratio was 9.9 to 1, below the maximum allowed by the jurisdictions with State Capital Requirements, and its policyholder position was \$2.9 billion above the required MPP of \$1.6 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 September 30, 2019, the risk-to-capital ratio of our combined insurance operations was 9.8 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 May 2016, a working group of state regulators released an exposure draft of 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, minimum capital floors, and action level triggers. 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 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 loan-to-value 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 loan-to-value 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 May 2016 would be, in part, a function of certain loan and economic factors, including property location, loan-to-value 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 on 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 the first nine months of 2019. Depending on 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 on 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, which, as of September 30, 2019, represents approximately 86% of our flow, primary insurance in force. 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, subject to state regulatory approvals. 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 Fannie Mae and Freddie Mac 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 September 30, 2019, mortgages with these characteristics in our primary risk in force included mortgages with LTV ratios greater than 95% (15.5%), loans with borrowers having FICO scores below 620 (2.1%), mortgages with borrowers having FICO scores of 620-679 (9.5%), mortgages with limited underwriting, including limited borrower documentation (1.8%), and mortgages with borrowers having DTI ratios greater than 45% (or where no ratio is available) (14.5%), 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*") will make 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 DTIs. 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. We do, however, believe that our insurance written beginning in the second half of 2008 will generate underwriting profits.

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.

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.

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 78.6% at September 30, 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 September 30, 2019, we had approximately \$308 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 (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 September 30, 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 the first nine months of 2019 and in 2018, it paid a total of \$210 million and \$220 million, respectively, in dividends to our holding company. We expect MGIC to pay dividends of at least \$280 million in 2020, subject to approval by its Board of Directors. We ask the OCI not to object before MGIC pays dividends.

In the first three quarters of 2019 and in 2018, we repurchased approximately 7.3 million and 16.0 million shares of our common stock, respectively, using approximately \$94 million and \$175 million of holding company resources, respectively. We may repurchase up to an additional \$131 million of our common stock through the end of 2020 under a share repurchase program approved by our Board of Directors in the first quarter of 2019. Repurchases may be made from time to time on the open market 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 September 30, 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 74.0741 common shares per \$1,000 principal amount of debentures. This represents a conversion price of approximately \$13.50 per share. The payment of dividends by our holding company will result in an adjustment to the conversion rate and price at the end of 2019.

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 \$17.55 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 in our Annual Report on Form 10-K filed with the SEC on February 22, 2019. 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 our information technology systems may become outdated and we may not be able to make timely modifications to support our products and services.

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 and 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 our information technology systems, 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 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.

Our financial results may be adversely impacted by natural disasters; 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, 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 could lead to a decrease in home prices in the affected areas, 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."*