ARCH CAPITAL GROUP LTD.
Form 10-Q
August 08, 2018
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

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

For the quarterly period ended June 30, 2018

Or

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

Commission file number: 001-16209

ARCH CAPITAL GROUP LTD.
(Exact name of registrant as specified in its charter)

Bermuda	Not applicable
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
Waterloo House, Ground Floor 100 Pitts Bay Road, Pembroke HM 08, Bermuda	(441) 278-9250
(Address of principal executive offices)	(Registrant's telephone number, including area code)

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 þ No o
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes þ No o
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. Large accelerated Filer þ Accelerated Filer o Non-accelerated Filer o Smaller reporting company o Emerging growth company o
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. o
Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No þ

As of August 3, 2018, there were 405,299,490 common shares, $0.0011 par value per share, of the registrant outstanding.

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PART I. FINANCIAL INFORMATION

Cautionary Note Regarding Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 ("PSLRA") provides a "safe harbor" for forward-looking statements. This report or any other written or oral statements made by or on behalf of us may include forward-looking statements, which reflect our current views with respect to future events and financial performance. All statements other than statements of historical fact included in or incorporated by reference in this report are forward-looking statements. Forward-looking statements, for purposes of the PSLRA or otherwise, can generally be identified by the use of forward-looking terminology such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe" or "continue" or similar statements of a future or forward-looking nature or their negative or variations or similar terminology. Forward-looking statements involve our current assessment of risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. Important factors that could cause actual events or results to differ materially from those indicated in such statements are discussed below and elsewhere in this report and in our periodic reports filed with the Securities and Exchange Commission (the "SEC"), and include:

- our ability to successfully implement our business strategy during "soft" as well as "hard" markets;
- acceptance of our business strategy, security and financial condition by rating agencies and regulators, as well as by brokers and our insureds and reinsureds;
- the integration of any businesses we have acquired or may acquire into our existing operations;
- our ability to maintain or improve our ratings, which may be affected by our ability to raise additional equity or debt financings, by ratings agencies' existing or new policies and practices, as well as other factors described herein;
- general economic and market conditions (including inflation, interest rates, unemployment, housing prices, foreign currency exchange rates, prevailing credit terms and the depth and duration of a recession) and conditions specific to the reinsurance and insurance markets (including the length and magnitude of the current "soft" market) in which we operate;
- competition, including increased competition, on the basis of pricing, capacity (including alternative sources of capital), coverage terms, or other factors;
- developments in the world's financial and capital markets and our access to such markets;
- our ability to successfully enhance, integrate and maintain operating procedures (including information technology) to effectively support our current and new business;
- the loss of key personnel;
- accuracy of those estimates and judgments utilized in the preparation of our financial statements, including those related to revenue recognition, insurance and other reserves, reinsurance recoverables, investment valuations, intangible assets, bad debts, income taxes, contingencies and litigation, and any determination to use the deposit method of accounting, which for a relatively new insurance and reinsurance company, like our company, are even more difficult to make than those made in a mature company since relatively limited historical information has been reported to us through June 30, 2018;
- greater than expected loss ratios on business written by us and adverse development on claim and/or claim expense liabilities related to business written by our insurance and reinsurance subsidiaries;
- severity and/or frequency of losses;
- claims for natural or man-made catastrophic events or severe economic events in our insurance, reinsurance and mortgage businesses could cause large losses and substantial volatility in our results of operations;
- acts of terrorism, political unrest and other hostilities or other unforecasted and unpredictable events;
- availability to us of reinsurance to manage our gross and net exposures and the cost of such reinsurance;
- the failure of reinsurers, managing general agents, third party administrators or others to meet their obligations to us;
- the timing of loss payments being faster or the receipt of reinsurance recoverables being slower than anticipated by us;
- our investment performance, including legislative or regulatory developments that may adversely affect the fair value of our investments;

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- changes in general economic conditions, including new or continued sovereign debt concerns in Eurozone countries or downgrades of U.S. securities by credit rating agencies, which could affect our business, financial condition and results of operations;
- the volatility of our shareholders’ equity from foreign currency fluctuations, which could increase due to us not matching portions of our projected liabilities in foreign currencies with investments in the same currencies;
- changes in accounting principles or policies or in our application of such accounting principles or policies;
- changes in the political environment of certain countries in which we operate or underwrite business;
- a disruption caused by cyber-attacks or other technology breaches or failures on us or our business partners and service providers, which could negatively impact our business and/or expose us to litigation;
- statutory or regulatory developments, including as to tax matters and insurance and other regulatory matters such as the adoption of proposed legislation that would affect Bermuda-headquartered companies and/or Bermuda-based insurers or reinsurers and/or changes in regulations or tax laws applicable to us, our subsidiaries, brokers or customers, including the Tax Cuts and Jobs Act of 2017; and
- the other matters set forth under Item 1A “Risk Factors”, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and other sections of our Annual Report on Form 10-K for the year ended December 31, 2017, as well as the other factors set forth in our other documents on file with the SEC, and management’s response to any of the aforementioned factors.

All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with other cautionary statements that are included herein or elsewhere. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Arch Capital Group Ltd.:

Results of Review of Financial Statements

We have reviewed the accompanying consolidated balance sheet of Arch Capital Group Ltd. and its subsidiaries as of June 30, 2018, and the related consolidated statements of income and of comprehensive income for the three-month and six-month periods ended June 30, 2018 and June 30, 2017, and the consolidated statements of changes in shareholders' equity and cash flows for the six-month periods ended June 30, 2018 and June 30, 2017 including the related notes (collectively referred to as the "interim financial statements"). Based on our reviews, we are not aware of any material modifications that should be made to the accompanying interim financial statements for them to be conformity with accounting principles generally accepted in the United States of America.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of the Company as of December 31, 2017, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and of cash flows for the year then ended (not presented herein), and in our report dated February 28, 2018, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet as of December 31, 2017, is fairly stated, in all material respects in relation to the consolidated balance sheet from which it has been derived.

Basis for Review Results

These interim financial statements are the responsibility of the Company's management. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our review in accordance with the standards of the PCAOB. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
New York, NY
August 8, 2018

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ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(U.S. dollars in thousands, except share data)

	(Unaudited) June 30, 2018	December 31, 2017
Assets		
Investments:		
Fixed maturities available for sale, at fair value (amortized cost: $14,293,121 and $13,869,460)	$14,128,989	$13,876,003
Short-term investments available for sale, at fair value (amortized cost: $1,096,532 and $1,468,955)	1,096,798	1,469,042
Collateral received under securities lending, at fair value (amortized cost: $236,948 and $476,605)	236,956	476,615
Equity securities, at fair value	534,482	495,804
Other investments available for sale, at fair value (cost: $0 and $198,163)	—	264,989
Investments accounted for using the fair value option	4,111,611	4,216,237
Investments accounted for using the equity method	1,428,582	1,041,322
Total investments	21,537,418	21,840,012
Cash	526,628	606,199
Accrued investment income	114,307	113,133
Securities pledged under securities lending, at fair value (amortized cost: $229,857 and $463,181)	230,064	464,917
Premiums receivable	1,351,310	1,135,249
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses	2,727,303	2,540,143
Contractholder receivables	2,044,322	1,978,414
Ceded unearned premiums	1,014,663	926,611
Deferred acquisition costs net	569,817	535,824
Receivable for securities sold	143,809	205,536
Goodwill and intangible assets	593,008	652,611
Other assets	1,000,471	1,053,009
Total assets	$31,853,120	$32,051,658
Liabilities		
Reserve for losses and loss adjustment expenses	$11,424,337	$11,383,792
Unearned premiums	3,833,540	3,622,314
Reinsurance balances payable	411,082	323,496
Contractholder payables	2,044,322	1,978,414
Collateral held for insured obligations	257,396	240,183
Senior notes	1,733,211	1,732,884
Revolving credit agreement borrowings	572,289	816,132
Securities lending payable	236,948	476,605
Payable for securities purchased	356,583	449,186
Other liabilities	752,399	782,717
Total liabilities	21,622,107	21,805,723
Commitments and Contingencies		
Redeemable noncontrolling interests	206,105	205,922

Shareholders' Equity		
Non-cumulative preferred shares	780,000	872,555
Convertible non-voting common equivalent preferred shares	—	489,627
Common shares ($0.0011 par, shares issued: 569,458,341 and 549,872,226)	633	611
Additional paid-in capital	1,760,606	1,230,617
Retained earnings	9,083,202	8,562,889
Accumulated other comprehensive income (loss), net of deferred income tax	(194,157)	118,044
Common shares held in treasury, at cost (shares: 164,021,704 and 156,938,409)	(2,266,529)	(2,077,741)
Total shareholders' equity available to Arch	9,163,755	9,196,602
Non-redeemable noncontrolling interests	861,153	843,411
Total shareholders' equity	10,024,908	10,040,013
Total liabilities, noncontrolling interests and shareholders' equity	$31,853,120	$32,051,658

See Notes to Consolidated Financial Statements

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ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(U.S. dollars in thousands, except share data)

	(Unaudited) Three Months Ended June 30,		(Unaudited) Six Months Ended June 30,	
	2018	2017	2018	2017
Revenues				
Net premiums written	$1,298,896	$1,248,695	$2,711,440	$2,524,955
Change in unearned premiums	37,867	(7,821)	(139,778)	(167,064)
Net premiums earned	1,336,763	1,240,874	2,571,662	2,357,891
Net investment income	135,668	111,124	262,392	228,998
Net realized gains (losses)	(76,611)	21,735	(187,609)	55,888
Other-than-temporary impairment losses	(470)	(1,730)	(632)	(3,537)
Less investment impairments recognized in other comprehensive income, before taxes	—	—	—	—
Net impairment losses recognized in earnings	(470)	(1,730)	(632)	(3,537)
Other underwriting income	3,874	4,822	9,223	9,455
Equity in net income (loss) of investment funds accounted for using the equity method	8,472	32,706	36,541	80,794
Other income (loss)	3,113	(1,994)	3,187	(2,776)
Total revenues	1,410,809	1,407,537	2,694,764	2,726,713
Expenses				
Losses and loss adjustment expenses	726,153	689,860	1,363,013	1,242,430
Acquisition expenses	202,838	190,436	394,214	372,725
Other operating expenses	176,181	169,981	351,196	344,700
Corporate expenses	22,512	24,876	37,824	52,668
Amortization of intangible assets	26,472	30,824	53,208	62,118
Interest expense	30,344	28,749	60,980	57,425
Net foreign exchange (gains) losses	(53,706)	39,543	(33,985)	58,947
Total expenses	1,130,794	1,174,269	2,226,450	2,191,013
Income before income taxes	280,015	233,268	468,314	535,700
Income tax expense	(23,668)	(34,169)	(45,583)	(62,566)
Net income	$256,347	$199,099	$422,731	$473,134
Net (income) loss attributable to noncontrolling interests	(12,701)	(13,932)	(28,662)	(34,840)
Net income available to Arch	243,646	185,167	394,069	438,294
Preferred dividends	(10,403)	(11,349)	(20,840)	(22,567)
Loss on redemption of preferred shares	—	—	(2,710)	—
Net income available to Arch common shareholders	$233,243	$173,818	$370,519	$415,727
Net income per common share and common share equivalent				
Basic	$0.58	$0.43	$0.91	$1.03
Diluted	$0.56	$0.42	$0.89	$1.00
Weighted average common shares and common share equivalents outstanding				

Basic	404,800,421	403,459,992	406,162,508	402,786,129
Diluted	413,111,205	417,733,938	415,460,756	417,421,896

See Notes to Consolidated Financial Statements

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ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(U.S. dollars in thousands)

	(Unaudited) Three Months Ended June 30,		(Unaudited) Six Months Ended June 30,	
	2018	2017	2018	2017
Comprehensive Income				
Net income	$256,347	$199,099	$422,731	$473,134
Other comprehensive income (loss), net of deferred income tax				
Unrealized appreciation (decline) in value of available-for-sale investments:				
Unrealized holding gains (losses) arising during period	(85,271)	92,969	(251,948)	193,761
Reclassification of net realized (gains) losses, net of income taxes, included in net income	36,643	(17,224)	99,104	(22,268)
Foreign currency translation adjustments	(12,595)	18,297	(11,313)	21,421
Comprehensive income	195,124	293,141	258,574	666,048
Net (income) loss attributable to noncontrolling interests	(12,701)	(13,932)	(28,662)	(34,840)
Other comprehensive (income) loss attributable to noncontrolling interests	1,077	76	1,750	68
Comprehensive income available to Arch	$183,500	$279,285	$231,662	$631,276

See Notes to Consolidated Financial Statements

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ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(U.S. dollars in thousands)

	(Unaudited) Six Months Ended June 30, 2018	2017
Non-cumulative preferred shares		
Balance at beginning of year	$872,555	$772,555
Preferred shares redeemed	(92,555)	—
Balance at end of period	780,000	772,555
Convertible non-voting common equivalent preferred shares		
Balance at beginning of year	489,627	1,101,304
Preferred shares converted to common shares	(489,627)	(611,677)
Balance at end of period	—	489,627
Common shares		
Balance at beginning of year	611	582
Common shares issued, net	22	27
Balance at end of period	633	609
Additional paid-in capital		
Balance at beginning of year	1,230,617	531,687
Preferred shares converted to common shares	489,608	611,653
Reversal of issue costs on preferred shares redeemed	2,710	—
All other	37,671	53,544
Balance at end of period	1,760,606	1,196,884
Retained earnings		
Balance at beginning of year	8,562,889	7,996,701
Cumulative effect of an accounting change (see Note 2)	149,794	(314)
Balance at beginning of year, as adjusted	8,712,683	7,996,387
Net income	422,731	473,134
Net (income) loss attributable to noncontrolling interests	(28,662)	(34,840)
Preferred share dividends	(20,840)	(22,567)
Loss on redemption of preferred shares	(2,710)	—
Balance at end of period	9,083,202	8,412,114
Accumulated other comprehensive income (loss), net of deferred income tax		
Balance at beginning of year	118,044	(114,541)
Unrealized appreciation (decline) in value of available-for-sale investments, net of deferred income tax:		
Balance at beginning of year	157,400	(27,641)
Cumulative effect of an accounting change (see Note 2)	(149,794)	—
Balance at beginning of year, as adjusted	7,606	(27,641)
Unrealized holding gains (losses) arising during period, net of reclassification adjustment	(152,844)	171,493
Unrealized holding gains (losses) arising during period attributable to noncontrolling interests	1,885	—

Balance at end of period	(143,353)	143,852
Foreign currency translation adjustments, net of deferred income tax:		
Balance at beginning of year	(39,356)	(86,900)
Foreign currency translation adjustments	(11,313)	21,421
Foreign currency translation adjustments attributable to noncontrolling interests	(135)	68
Balance at end of period	(50,804)	(65,411)
Balance at end of period	(194,157)	78,441
Common shares held in treasury, at cost		
Balance at beginning of year	(2,077,741)	(2,034,570)
Shares repurchased for treasury	(188,788)	(16,773)
Balance at end of period	(2,266,529)	(2,051,343)
Total shareholders’ equity available to Arch	9,163,755	8,898,887
Non-redeemable noncontrolling interests	861,153	877,456
Total shareholders’ equity	$10,024,908	$9,776,343

See Notes to Consolidated Financial Statements

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ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(U.S. dollars in thousands)

	(Unaudited) Six Months Ended June 30,	
	2018	2017
Operating Activities		
Net income	$422,731	$473,134
Adjustments to reconcile net income to net cash provided by operating activities:		
Net realized (gains) losses	177,442	(74,985)
Net impairment losses recognized in earnings	632	3,537
Equity in net income or loss of investment funds accounted for using the equity method and other income or loss	(13,543)	(47,529)
Amortization of intangible assets	53,208	62,118
Share-based compensation	35,419	42,739
Changes in:		
Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable	(77,891)	180,342
Unearned premiums, net of ceded unearned premiums	139,778	167,064
Premiums receivable	(236,950)	(222,498)
Deferred acquisition costs	(35,111)	(53,553)
Reinsurance balances payable	88,961	50,112
Other items, net	(57,790)	(46,946)
Net cash provided by operating activities	496,886	533,535
Investing Activities		
Purchases of fixed maturity investments	(16,867,570)	(19,899,326)
Purchases of equity securities	(679,663)	(400,155)
Purchases of other investments	(1,017,147)	(883,704)
Proceeds from sales of fixed maturity investments	16,090,543	19,611,680
Proceeds from sales of equity securities	622,068	473,064
Proceeds from sales, redemptions and maturities of other investments	773,298	614,494
Proceeds from redemptions and maturities of fixed maturity investments	511,448	447,941
Net settlements of derivative instruments	4,498	(5,984)
Net sales (purchases) of short-term investments	451,901	(445,203)
Change in cash collateral related to securities lending	176,304	175,693
Purchases of fixed assets	(13,242)	(11,103)
Other	49,961	33,488
Net cash provided by (used for) investing activities	102,399	(289,115)
Financing Activities		
Redemption of preferred shares	(92,555)	—
Purchases of common shares under share repurchase program	(173,575)	—
Proceeds from common shares issued, net	(13,851)	(6,838)
Proceeds from borrowings	130,579	—
Repayments of borrowings	(373,000)	(72,000)
Change in cash collateral related to securities lending	(176,304)	(175,693)
Dividends paid to redeemable noncontrolling interests	(8,994)	(8,994)
Other	(4,489)	(41,698)
Preferred dividends paid	(20,840)	(22,567)

Net cash provided by (used for) financing activities	(733,029)	(327,790)
Effects of exchange rate changes on foreign currency cash and restricted cash	(10,431)	9,616
Increase (decrease) in cash and restricted cash	(144,175)	(73,754)
Cash and restricted cash, beginning of year	727,284	969,569
Cash and restricted cash, end of period	$583,109	$895,815

Reconciliation of cash and restricted cash within the Consolidated Balance Sheets:	June 30, 2018		December 31, 2017	
Cash	$	526,628	$	606,199
Restricted cash (included in ‘other assets’)	$	56,481	$	121,085
Cash and restricted cash	$	583,109	$	727,284

See Notes to Consolidated Financial Statements

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

1. General

Arch Capital Group Ltd. (“Arch Capital”) is a Bermuda public limited liability company which provides insurance, reinsurance and mortgage insurance on a worldwide basis through its wholly-owned subsidiaries. As used herein, the “Company” means Arch Capital and its subsidiaries. The Company’s consolidated financial statements include the results of Watford Holdings Ltd. and its wholly owned subsidiaries. See Note 11.

The interim consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”). All significant intercompany transactions and balances have been eliminated in consolidation. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates and assumptions. In the opinion of management, the accompanying unaudited interim consolidated financial statements reflect all adjustments (consisting of normally recurring accruals) necessary for a fair statement of results on an interim basis. The results of any interim period are not necessarily indicative of the results for a full year or any future periods. Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted; however, management believes that the disclosures are adequate to make the information presented not misleading. This report should be read in conjunction with the Company’s Annual Report on Form 10-K for the year ended December 31, 2017 (“2017 Form 10-K”), including the Company’s audited consolidated financial statements and related notes.

The Company has reclassified the presentation of certain prior year information to conform to the current presentation. Such reclassifications had no effect on the Company’s net income, comprehensive income, shareholders’ equity or cash flows. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted.

2. Recent Accounting Pronouncements

Recently Issued Accounting Standards Adopted

The Company adopted ASU 2016-01, “Financial Instruments - Overall (Subtopic 825-10) - Recognition and Measurement of Financial Assets and Financial Liabilities,” which enhances the reporting model for financial instruments and provides improved financial information to readers of the financial statements. Among other provisions focused on improving the recognition and measurement of financial instruments, the ASU significantly changes the income statement impact of equity instruments and the recognition of changes in fair value of financial liabilities attributable to an entity's own credit risk when the fair value option is elected. The ASU requires equity instruments that do not result in consolidation and are not accounted for under the equity method to be measured at fair value with any changes in fair value recognized in net income rather than other comprehensive income. Upon adoption of this ASU, the Company recorded a cumulative effect adjustment of $149.8 million in retained earnings and an offsetting decrease in accumulated other comprehensive income. The adoption of this ASU did not have a material impact on the Company's financial position, cash flows, or total comprehensive income, but may increase volatility in the Company's results of operations in future periods.

The Company adopted Financial Accounting Standards Board (“FASB”) Accounting Standard Update (“ASU”) 2014-09, “Revenue from Contracts with Customers (Topic 606),” which creates a new comprehensive revenue recognition standard that serves as a single source of revenue guidance for all companies in all industries. The guidance applies to all companies that either enter into contracts with customers to transfer goods or services or enter into contracts for the transfer of non-financial assets, unless those contracts are within the scope of other standards, such as insurance contracts or financial instruments. The ASU also requires enhanced disclosures about revenue. The Company adopted the ASU using the modified retrospective method, whereby the cumulative effect of adoption was recognized as an adjustment to retained earnings at the date of initial application. The impact of the adoption of this ASU was not material, mostly because the accounting for insurance contracts is outside of the scope of ASU 2014-09.

The Company adopted ASU 2016-18, “Statement of Cash Flows (Topic 230) - Restricted Cash,” which requires that restricted cash and restricted cash equivalents be included with cash and cash equivalents in the reconciliation of beginning and ending cash on the statements of cash flows. As a result, transfers between cash and cash equivalents and restricted cash and restricted cash equivalents will no longer be presented on the statement of cash flows. The revised presentation required in this ASU is reflected in the Company’s consolidated statements of cash flows for both periods presented. The adoption of this ASU did not have any effect on the Company’s results of operations, financial position or comprehensive income.

Recently Issued Accounting Standards Not Yet Adopted

For information regarding accounting standards that the Company has not yet adopted, see note 3(q), “Significant

Accounting Policies—Recent Accounting Pronouncements," of the notes to consolidated financial statements in the Company's 2017 Form 10-K.

3. Share Transactions

Three-For-One Common Share Split

In May 2018, shareholders approved a proposal to amend the memorandum of association by sub-dividing the authorized common shares of Arch Capital to effect a three-for-one split of Arch Capital's common shares. The share split changed the Company's authorized common shares to 1.8 billion common shares (600 million previously), with a par value of $.0011 per share ($.0033 previously). Information pertaining to the composition of the Company's shareholders' equity accounts, shares and earnings per share has been retroactively restated in the accompanying financial statements and notes to the consolidated financial statements to reflect the share split.

Share-Based Compensation

During the 2018 second quarter, the Company granted 2,199,656 stock options, 1,264,931 restricted shares and units and 705,345 performance shares and units to certain employees and directors with weighted average grant-date fair values of $7.43, $26.56 and $24.65, respectively. During the 2017 second quarter, the Company granted 1,477,398 stock options and 1,534,908 restricted shares and units to certain employees and directors with weighted average grant-date fair values of $8.22 and $32.09, respectively. The stock options were valued at the grant date using the Black-Scholes option pricing model. Such values are being amortized over the respective substantive vesting period. For awards granted to retirement-eligible employees where no service is required for the employee to retain the award, the grant date fair value is immediately recognized as compensation expense at the grant date because the employee is able to retain the award without continuing to provide service. For employees near retirement eligibility, attribution of compensation cost is recognized over the period from the grant date to the retirement eligibility date.

Share Repurchases

The board of directors of Arch Capital has authorized the investment in Arch Capital's common shares through a share repurchase program. Since the inception of the share repurchase program, Arch Capital has repurchased 382.2 million common shares for an aggregate purchase price of $3.86 billion. For the six months ended June 30, 2018, Arch Capital repurchased 6,522,645 shares under the share repurchase program with an aggregate purchase price of $173.6 million. Arch Capital did not repurchase any shares under the share repurchase program during the six months ended June 30, 2017. At June 30, 2018, $272.9 million of share repurchases were available under the program, which may be effected from time to time in open market or privately negotiated transactions through December 31, 2019. The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations.

Conversion of Convertible Non-Voting Common Equivalent Preferred Shares

In March 2018, Arch Capital completed an underwritten public secondary offering of 17,022,600 common shares (split adjusted) by American International Group, Inc. ("AIG") following transfer of 567,420 Series D convertible non-voting common equivalent preferred shares ("Series D Preferred Shares"). Proceeds from the sale of common shares pursuant to the public offering were received by AIG. At June 30, 2018, no Series D Preferred Shares were outstanding.

Series C Preferred Shares

On January 2, 2018, Arch Capital redeemed all outstanding 6.75% Series C non-cumulative preferred shares. The preferred shares were redeemed at a redemption price equal to $25 per share, plus all declared and unpaid dividends to (but excluding) the redemption date. In accordance with GAAP, following the redemption, original issuance costs related to such shares have been removed from additional paid-in capital and recorded as a "loss on redemption of preferred shares." Such adjustment had no impact on total shareholders' equity or cash flows.

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4. Earnings Per Common Share

The following table sets forth the computation of basic and diluted earnings per common share:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Numerator:				
Net income	$256,347	$199,099	$422,731	$473,134
Amounts attributable to noncontrolling interests	(12,701)	(13,932)	(28,662)	(34,840)
Net income available to Arch	243,646	185,167	394,069	438,294
Preferred dividends	(10,403)	(11,349)	(20,840)	(22,567)
Loss on redemption of preferred shares	—	—	(2,710)	—
Net income available to Arch common shareholders	$233,243	$173,818	$370,519	$415,727
Denominator:				
Weighted average common shares outstanding	404,800,421	369,027,702	399,485,135	366,436,407
Series D preferred shares (1)	—	34,432,290	6,677,373	36,349,722
Weighted average common shares and common share equivalents outstanding — basic	404,800,421	403,459,992	406,162,508	402,786,129
Effect of dilutive common share equivalents:				
Nonvested restricted shares	1,575,749	4,448,889	1,837,356	4,670,889
Stock options (2)	6,735,035	9,825,057	7,460,892	9,964,878
Weighted average common shares and common share equivalents outstanding — diluted	413,111,205	417,733,938	415,460,756	417,421,896
Earnings per common share:				
Basic	$0.58	$0.43	$0.91	$1.03
Diluted	$0.56	$0.42	$0.89	$1.00

(1) Such shares are convertible non-voting common equivalent preferred shares issued in connection with the UGC acquisition. See Note 3.

(2) Certain stock options were not included in the computation of diluted earnings per share where the exercise price of the stock options exceeded the average market price and would have been anti-dilutive or where, when applying the treasury stock method to in-the-money options, the sum of the proceeds, including unrecognized compensation, exceeded the average market price and would have been anti-dilutive. For the 2018 second quarter and 2017 second quarter, the number of stock options excluded were 5,350,733 and 1,499,997, respectively. For the six months ended June 30, 2018 and 2017, the number of stock options excluded were 5,372,789 and 2,292,228, respectively.

5. Segment Information

The Company classifies its businesses into three underwriting segments — insurance, reinsurance and mortgage — and two other operating segments — ‘other’ and corporate (non-underwriting). The Company determined its reportable segments using the management approach described in accounting guidance regarding disclosures about segments of an enterprise and related information. The accounting policies of the segments are the same as those used for the preparation of the Company’s consolidated financial statements. Intersegment business is allocated to the segment accountable for the underwriting results.

The Company’s insurance, reinsurance and mortgage segments each have managers who are responsible for the overall profitability of their respective segments and who are directly accountable to the Company’s chief operating decision makers, the President and Chief Executive Officer of Arch Capital, and the Chief Financial Officer of Arch Capital. The chief operating decision makers do not assess performance, measure return on equity or make resource allocation decisions on a line of business basis. Management measures segment performance for its three underwriting segments based on underwriting income or loss. The Company does not manage its assets by underwriting segment, with the exception of goodwill and intangible assets, and, accordingly, investment income is not allocated to each underwriting segment.

The insurance segment consists of the Company’s insurance underwriting units which offer specialty product lines on a worldwide basis. Product lines include: construction and national accounts; excess and surplus casualty; lenders products; professional lines; programs; property, energy, marine and aviation; travel, accident and health; and other (consisting of alternative markets, excess workers' compensation and surety business).

The reinsurance segment consists of the Company’s reinsurance underwriting units which offer specialty product lines on a worldwide basis. Product lines include: casualty; marine and aviation; other specialty; property catastrophe; property excluding property catastrophe (losses on a single risk, both excess of loss and pro rata); and other (consisting of life reinsurance, casualty clash and other).

The mortgage segment includes the Company’s U.S. and international mortgage insurance and reinsurance operations as well as government sponsored enterprise (“GSE”) credit-risk sharing transactions. Arch Mortgage Insurance Company and United Guaranty Residential Insurance Company (combined “Arch MI U.S.”) are approved as eligible mortgage insurers by Federal National Mortgage Association (“Fannie Mae”) and Federal Home Loan Mortgage Corporation (“Freddie Mac”), each a GSE.

The corporate (non-underwriting) segment results include net investment income, other income (loss), corporate expenses, UGC transaction costs and other, interest expense, items related to the Company’s non-cumulative preferred shares, net realized gains or losses, net impairment losses included in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and income taxes. Such amounts exclude the results of the ‘other’ segment.

The ‘other’ segment includes the results of Watford Re (see Note 11). Watford Re has its own management and board of directors that is responsible for the overall profitability of the ‘other’ segment. For the ‘other’ segment, performance is measured based on net income or loss.

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The following tables summarize the Company’s underwriting income or loss by segment, together with a reconciliation of underwriting income or loss to net income available to Arch common shareholders:

	Three Months Ended June 30, 2018					
	Insurance	Reinsurance	Mortgage	Sub-Total	Other	Total
Gross premiums written (1)	$769,372	$490,327	$330,990	$1,591,202	$175,175	$1,696,544
Premiums ceded	(245,265)	(136,247)	(50,867)	(432,892)	(34,589)	(397,648)
Net premiums written	524,107	354,080	280,123	1,158,310	140,586	1,298,896
Change in unearned premiums	22,342	(13,762)	10,355	18,935	18,932	37,867
Net premiums earned	546,449	340,318	290,478	1,177,245	159,518	1,336,763
Other underwriting income (loss)	—	(129)	3,315	3,186	688	3,874
Losses and loss adjustment expenses	(357,465)	(229,956)	(21,591)	(609,012)	(117,141)	(726,153)
Acquisition expenses	(90,670)	(50,142)	(27,737)	(168,549)	(34,289)	(202,838)
Other operating expenses	(92,680)	(35,678)	(38,729)	(167,087)	(9,094)	(176,181)
Underwriting income (loss)	$5,634	$24,413	$205,736	235,783	(318)	235,465
Net investment income				107,761	27,907	135,668
Net realized gains (losses)				(59,545)	(17,066)	(76,611)
Net impairment losses recognized in earnings				(470)	—	(470)
Equity in net income (loss) of investment funds accounted for using the equity method				8,472	—	8,472
Other income (loss)				3,113	—	3,113
Corporate expenses (2)				(15,604)	—	(15,604)
UGC transaction costs and other (2)				(6,908)	—	(6,908)
Amortization of intangible assets				(26,472)	—	(26,472)
Interest expense				(26,058)	(4,286)	(30,344)
Net foreign exchange gains (losses)				46,211	7,495	53,706
Income before income taxes				266,283	13,732	280,015
Income tax expense				(23,644)	(24)	(23,668)
Net income				242,639	13,708	256,347
Dividends attributable to redeemable noncontrolling interests				—	(4,585)	(4,585)
Amounts attributable to nonredeemable noncontrolling interests				—	(8,116)	(8,116)
Net income available to Arch				242,639	1,007	243,646
Preferred dividends				(10,403)	—	(10,403)
Net income available to Arch common shareholders				$232,236	$1,007	$233,243
Underwriting Ratios						
Loss ratio	65.4 %	67.6 %	7.4 %	51.7 %	73.4 %	54.3 %
Acquisition expense ratio	16.6 %	14.7 %	9.5 %	14.3 %	21.5 %	15.2 %
Other operating expense ratio	17.0 %	10.5 %	13.3 %	14.2 %	5.7 %	13.2 %

Combined ratio	99.0 %	92.8 %	30.2 %	80.2 %	100.6 %	82.7 %
Goodwill and intangible assets	$20,724	$—	$564,634	$585,358	$7,650	$593,008

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.

(2) Certain expenses have been excluded from ‘corporate expenses’ and reflected in ‘UGC transaction costs and other.’

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	Three Months Ended June 30, 2017					
	Insurance	Reinsurance	Mortgage	Sub-Total	Other	Total
Gross premiums written (1)	$743,902	$453,186	$336,226	$1,533,142	$152,813	$1,609,659
Premiums ceded	(247,446)	(115,262)	(62,314)	(424,850)	(12,410)	(360,964)
Net premiums written	496,456	337,924	273,912	1,108,292	140,403	1,248,695
Change in unearned premiums	21,118	(23,222)	(16,068)	(18,172)	10,351	(7,821)
Net premiums earned	517,574	314,702	257,844	1,090,120	150,754	1,240,874
Other underwriting income (loss)	—	(279)	4,277	3,998	824	4,822
Losses and loss adjustment expenses	(350,939)	(207,606)	(20,694)	(579,239)	(110,621)	(689,860)
Acquisition expenses	(78,872)	(51,151)	(25,666)	(155,689)	(34,747)	(190,436)
Other operating expenses	(92,267)	(36,711)	(32,150)	(161,128)	(8,853)	(169,981)
Underwriting income (loss)	$(4,504)	$18,955	$183,611	198,062	(2,643)	195,419
Net investment income				92,520	18,604	111,124
Net realized gains (losses)				18,046	3,689	21,735
Net impairment losses recognized in earnings				(1,730)	—	(1,730)
Equity in net income (loss) of investment funds accounted for using the equity method				32,706	—	32,706
Other income (loss)				(1,994)	—	(1,994)
Corporate expenses (2)				(22,201)	—	(22,201)
UGC transaction costs and other (2)				(2,675)	—	(2,675)
Amortization of intangible assets				(30,824)	—	(30,824)
Interest expense				(25,912)	(2,837)	(28,749)
Net foreign exchange gains (losses)				(37,821)	(1,722)	(39,543)
Income before income taxes				218,177	15,091	233,268
Income tax expense				(34,169)	—	(34,169)
Net income				184,008	15,091	199,099
Dividends attributable to redeemable noncontrolling interests				—	(4,586)	(4,586)
Amounts attributable to nonredeemable noncontrolling interests				—	(9,346)	(9,346)
Net income available to Arch				184,008	1,159	185,167
Preferred dividends				(11,349)	—	(11,349)
Net income available to Arch common shareholders				$172,659	$1,159	$173,818
Underwriting Ratios						
Loss ratio	67.8 %	66.0 %	8.0 %	53.1 %	73.4 %	55.6 %
Acquisition expense ratio	15.2 %	16.3 %	10.0 %	14.3 %	23.0 %	15.3 %
Other operating expense ratio	17.8 %	11.7 %	12.5 %	14.8 %	5.9 %	13.7 %
Combined ratio	100.8 %	94.0 %	30.5 %	82.2 %	102.3 %	84.6 %

Goodwill and intangible assets	$24,480	$609	$680,236	$705,325	$7,650	$712,975

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.
(2) Certain expenses have been excluded from ‘corporate expenses’ and reflected in ‘UGC transaction costs and other.’

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
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	Six Months Ended June 30, 2018					
	Insurance	Reinsurance	Mortgage	Sub-Total	Other	Total
Gross premiums written (1)	$1,592,750	$1,067,810	$652,168	$3,312,807	$389,045	$3,534,758
Premiums ceded	(492,445)	(331,977)	(97,004)	(921,505)	(68,907)	(823,318)
Net premiums written	1,100,305	735,833	555,164	2,391,302	320,138	2,711,440
Change in unearned premiums	(15,119)	(116,343)	15,556	(115,906)	(23,872)	(139,778)
Net premiums earned	1,085,186	619,490	570,720	2,275,396	296,266	2,571,662
Other underwriting income (loss)	—	1,103	6,731	7,834	1,389	9,223
Losses and loss adjustment expenses	(711,195)	(371,631)	(65,057)	(1,147,883)	(215,130)	(1,363,013)
Acquisition expenses	(175,839)	(98,461)	(54,304)	(328,604)	(65,610)	(394,214)
Other operating expenses	(184,654)	(71,249)	(77,500)	(333,403)	(17,793)	(351,196)
Underwriting income (loss)	$13,498	$79,252	$380,590	473,340	(878)	472,462
Net investment income				208,004	54,388	262,392
Net realized gains (losses)				(171,404)	(16,205)	(187,609)
Net impairment losses recognized in earnings				(632)	—	(632)
Equity in net income (loss) of investment funds accounted for using the equity method				36,541	—	36,541
Other income (loss)				3,187	—	3,187
Corporate expenses (2)				(30,086)	—	(30,086)
UGC transaction costs and other (2)				(7,738)	—	(7,738)
Amortization of intangible assets				(53,208)	—	(53,208)
Interest expense				(51,965)	(9,015)	(60,980)
Net foreign exchange gains (losses)				31,172	2,813	33,985
Income before income taxes				437,211	31,103	468,314
Income tax expense				(45,556)	(27)	(45,583)
Net income				391,655	31,076	422,731
Dividends attributable to redeemable noncontrolling interests				—	(9,170)	(9,170)
Amounts attributable to nonredeemable noncontrolling interests				—	(19,492)	(19,492)
Net income available to Arch				391,655	2,414	394,069
Preferred dividends				(20,840)	—	(20,840)
Loss on redemption of preferred shares				(2,710)	—	(2,710)
Net income available to Arch common shareholders				$368,105	$2,414	$370,519

Underwriting Ratios												
Loss ratio	65.5	%	60.0	%	11.4	%	50.4	%	72.6	%	53.0	%
Acquisition expense ratio	16.2	%	15.9	%	9.5	%	14.4	%	22.1	%	15.3	%
Other operating expense ratio	17.0	%	11.5	%	13.6	%	14.7	%	6.0	%	13.7	%
Combined ratio	98.7	%	87.4	%	34.5	%	79.5	%	100.7	%	82.0	%

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.

(2) Certain expenses have been excluded from ‘corporate expenses’ and reflected in ‘UGC transaction costs and other.’

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
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Six Months Ended June 30, 2017	Insurance	Reinsurance	Mortgage	Sub-Total	Other	Total
Gross premiums written (1)	$1,526,183	$928,968	$684,849	$3,139,828	$306,933	$3,267,649
Premiums ceded	(481,541)	(281,354)	(136,239)	(898,962)	(22,844)	(742,694)
Net premiums written	1,044,642	647,614	548,610	2,240,866	284,089	2,524,955
Change in unearned premiums	(21,422)	(88,061)	(46,243)	(155,726)	(11,338)	(167,064)
Net premiums earned	1,023,220	559,553	502,367	2,085,140	272,751	2,357,891
Other underwriting income (loss)	—	(585)	8,400	7,815	1,640	9,455
Losses and loss adjustment expenses	(683,580)	(313,060)	(49,759)	(1,046,399)	(196,031)	(1,242,430)
Acquisition expenses	(153,740)	(97,298)	(54,432)	(305,470)	(67,255)	(372,725)
Other operating expenses	(180,393)	(74,244)	(74,020)	(328,657)	(16,043)	(344,700)
Underwriting income (loss)	$5,507	$74,366	$332,556	412,429	(4,938)	407,491
Net investment income				188,332	40,666	228,998
Net realized gains (losses)				46,558	9,330	55,888
Net impairment losses recognized in earnings				(3,537)	—	(3,537)
Equity in net income (loss) of investment funds accounted for using the equity method				80,794	—	80,794
Other income (loss)				(2,776)	—	(2,776)
Corporate expenses (2)				(34,409)	—	(34,409)
UGC transaction costs and other (2)				(18,259)	—	(18,259)
Amortization of intangible assets				(62,118)	—	(62,118)
Interest expense				(51,668)	(5,757)	(57,425)
Net foreign exchange gains (losses)				(57,666)	(1,281)	(58,947)
Income before income taxes				497,680	38,020	535,700
Income tax expense				(62,566)	—	(62,566)
Net income				435,114	38,020	473,134
Dividends attributable to redeemable noncontrolling interests				—	(9,170)	(9,170)
Amounts attributable to nonredeemable noncontrolling interests				—	(25,670)	(25,670)
Net income available to Arch				435,114	3,180	438,294
Preferred dividends				(22,567)	—	(22,567)
Net income available to Arch common shareholders				$412,547	$3,180	$415,727
Underwriting Ratios						
Loss ratio	66.8 %	55.9 %	9.9 %	50.2 %	71.9 %	52.7 %
Acquisition expense ratio	15.0 %	17.4 %	10.8 %	14.6 %	24.7 %	15.8 %

Other operating expense ratio	17.6	%	13.3	%	14.7	%	15.8	%	5.9	%	14.6	%
Combined ratio	99.4	%	86.6	%	35.4	%	80.6	%	102.5	%	83.1	%

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.

(2) Certain expenses have been excluded from ‘corporate expenses’ and reflected in ‘UGC transaction costs and other.’

6. Reserve for Losses and Loss Adjustment Expenses

The following table represents an analysis of losses and loss adjustment expenses and a reconciliation of the beginning and ending reserve for losses and loss adjustment expenses:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Reserve for losses and loss adjustment expenses at beginning of period	$11,496,205	$10,296,821	$11,383,792	$10,200,960
Unpaid losses and loss adjustment expenses recoverable	2,446,990	2,095,130	2,464,910	2,083,575
Net reserve for losses and loss adjustment expenses at beginning of period	9,049,215	8,201,691	8,918,882	8,117,385
Net incurred losses and loss adjustment expenses relating to losses occurring in:				
Current year	790,742	759,261	1,478,627	1,395,037
Prior years	(64,589)	(69,401)	(115,614)	(152,607)
Total net incurred losses and loss adjustment expenses	726,153	689,860	1,363,013	1,242,430
Retroactive reinsurance transaction (1)	(420,404)	—	(420,404)	—
Net foreign exchange (gains) losses	(118,542)	75,295	(74,528)	106,574
Net paid losses and loss adjustment expenses relating to losses occurring in:				
Current year	(59,022)	(80,499)	(95,022)	(115,502)
Prior years	(404,812)	(482,046)	(919,353)	(946,586)
Total net paid losses and loss adjustment expenses	(463,834)	(562,545)	(1,014,375)	(1,062,088)
Net reserve for losses and loss adjustment expenses at end of period	8,772,588	8,404,301	8,772,588	8,404,301
Unpaid losses and loss adjustment expenses recoverable	2,651,749	2,116,210	2,651,749	2,116,210
Reserve for losses and loss adjustment expenses at end of period	$11,424,337	$10,520,511	$11,424,337	$10,520,511

(1) During the 2018 second quarter, a subsidiary of the Company entered into a retroactive reinsurance transaction with a third party reinsurer to reinsure run-off liabilities associated with certain discontinued U.S. specialty casualty and program exposures.

Development on Prior Year Loss Reserves

2018 Second Quarter

During the 2018 second quarter, the Company recorded net favorable development on prior year loss reserves of $64.6 million, which consisted of $33.0 million from the reinsurance segment, $6.1 million from the insurance segment, $23.3 million from the mortgage segment and $2.2 million from the ‘other’ segment.
The reinsurance segment’s net favorable development of $33.0 million, or 9.7 loss ratio points, for the 2018 second quarter consisted of $22.2 million from short-tailed lines and $10.8 million from long-tailed and medium-tailed lines.

Favorable development in short-tailed lines included $19.3 million from property catastrophe and property other than property catastrophe reserves, across most underwriting years (i.e., all premiums and losses attributable to contracts having an inception or renewal date within the given twelve-month period), reflecting lower levels of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during the period. Favorable development in long-tailed and medium-tailed lines reflected

reductions in marine reserves of $3.8 million, across most accident years, and in casualty reserves of $6.9 million based on varying levels of reported and paid claims activity, primarily from the 2003 to 2010 underwriting years.
The insurance segment's net favorable development of $6.1 million, or 1.1 loss ratio points, for the 2018 second quarter consisted of $13.9 million of net favorable development in short-tailed lines and $14.3 million of net favorable development in long-tailed lines, partially offset by $22.1 million of net adverse development in medium-tailed lines. Net favorable development in short-tailed lines primarily resulted from property (including special risk other than marine) reserves from the 2010 to 2017 accident years (i.e., the year in which a loss occurred) while net favorable development in long-tailed lines primarily resulted from reductions in executive assurance reserves of $6.9 million, primarily from the 2007 to 2011 accident years, and in healthcare reserves of $4.9 million, primarily from the 2003 accident year. Net adverse development in medium-tailed lines reflected $11.6 million of adverse development in program business, primarily driven by a few inactive programs that were non-renewed in 2015 and early in 2016 and $18.0 million of adverse development on

contract binding business, primarily from the 2014 to 2016 accident years. Such amounts were partially offset by $7.6 million of net favorable development in other medium-tailed lines, including professional liability and surety business, across most accident years.

The mortgage segment’s net favorable development was $23.3 million, or 8.0 loss ratio points, for the 2018 second quarter. The 2018 second quarter development was primarily driven by continued lower than expected claim rates on first lien business and subrogation recoveries on second lien business at Arch MI U.S.

2017 Second Quarter

During the 2017 second quarter, the Company recorded net favorable development on prior year loss reserves of $69.4 million, which consisted of $39.5 million from the reinsurance segment, $2.0 million from the insurance segment, $29.8 million from the mortgage segment and adverse development of $1.9 million from the ‘other’ segment.

The reinsurance segment’s net favorable development of $39.5 million, or 12.6 loss ratio points, for the 2017 second quarter consisted of $28.1 million from short-tailed lines and $11.4 million from long-tailed and medium-tailed lines. Favorable development in short-tailed lines included $16.9 million from property catastrophe and property other than property catastrophe reserves, across most underwriting years, reflecting lower levels of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during the period. Favorable development in long-tailed and medium-tailed lines reflected reductions in casualty reserves of $9.0 million based on varying levels of reported and paid claims activity, primarily from the 2002 to 2004 underwriting years, and favorable development in marine reserves of $2.4 million across most underwriting years.

The insurance segment’s net favorable development of $2.0 million, or 0.4 loss ratio points, for the 2017 second quarter consisted of $5.3 million of net favorable development in short-tailed lines, partially offset by $3.3 million of net adverse development in medium-tailed and long-tailed lines. Net favorable development in short-tailed lines primarily resulted from property (including special risk other than marine) reserves from the 2012 to 2016 accident years. Net adverse development in medium-tailed and long-tailed lines reflected $12.2 million of adverse development on programs, primarily on a small number of programs in the 2014 and 2015 accident years, and $8.9 million on construction reserves across various accident years. Such amounts were partially offset by net favorable development of $17.8 million in other medium-tailed lines, primarily in professional liability with $12.1 million of favorable development across most accident years, and surety with $3.6 million of favorable development.

The mortgage segment’s net favorable development was $29.8 million, or 11.5 loss ratio points, for the 2017 second quarter. The 2017 second quarter development was primarily driven by continued lower than expected claim rates on first lien business and subrogation recoveries on second lien business at Arch MI U.S.

Six Months Ended June 30, 2018

During the six months ended June 30, 2018, the Company recorded net favorable development on prior year loss reserves of $115.6 million, which consisted of $69.6 million from the reinsurance segment, $8.2 million from the insurance segment, $36.3 million from the mortgage segment and $1.6 million from the ‘other’ segment.

The reinsurance segment’s net favorable development of $69.6 million, or 11.2 loss ratio points, for the 2018 period consisted of $51.1 million from short-tailed lines and $18.5 million from long-tailed and medium-tailed lines. Favorable development in short-tailed lines included $40.4 million from property catastrophe and property other than property catastrophe reserves, across most underwriting years, reflecting lower levels of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during the period. Favorable development in long-tailed and medium-tailed lines reflected reductions in casualty reserves of $8.1 million based on varying levels of reported and paid claims activity, primarily from the 2002 to 2010 underwriting years, and favorable development in marine reserves of $10.0 million across most underwriting years.

The insurance segment’s net favorable development of $8.2 million, or 0.8 loss ratio points, for the 2018 period consisted of $22.7 million of net favorable development in short-tailed lines and $17.2 million of net favorable development in long-tailed lines, partially offset by $31.7 million of net adverse development in medium-tailed lines. Net favorable development in short-tailed lines primarily resulted from property (including special risk other than marine) reserves from the 2010 and 2017 accident years. Net favorable development in long-tailed lines reflected net reductions in executive assurance reserves of $7.5 million, primarily from the 2008 to 2015 accident years, and in healthcare reserves of $7.0 million, primarily from the 2003 accident year. Net adverse development in medium-tailed lines reflected $21.9 million of adverse development in program business, primarily driven by a few inactive programs that were non-renewed in 2015 and early in 2016 and $25.6 million of adverse development on contract binding business, primarily from the 2014 to 2016 accident years. Such amounts were partially offset by $15.8 million of net favorable development in other medium-tailed lines, including professional liability and surety business, across most accident years.

The mortgage segment's net favorable development was $36.3 million, or 6.4 loss ratio points, for the 2018 period. The 2018 development was primarily driven by continued lower than expected claim rates on first lien business and subrogation recoveries on second lien business at Arch MI U.S.

Six Months Ended June 30, 2017

During the six months ended June 30, 2017, the Company recorded net favorable development on prior year loss reserves of $152.6 million, which consisted of $96.8 million from the reinsurance segment, $4.1 million from the insurance segment, $53.4 million from the mortgage segment and adverse development of $1.7 million from the ‘other’ segment.

The reinsurance segment’s net favorable development of $96.8 million, or 17.3 loss ratio points, for the 2017 period consisted of $68.9 million from short-tailed lines and $27.9 million from long-tailed and medium-tailed lines. Favorable development in short-tailed lines included $51.0 million from property catastrophe and property other than property catastrophe reserves, across most underwriting years, reflecting lower levels of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during the period. Favorable development in long-tailed and medium-tailed lines reflected reductions in casualty reserves of $15.6 million based on varying levels of reported and paid claims activity, primarily from the 2002 to 2013 underwriting years, and favorable development in marine reserves of $12.3 million across most underwriting years.

The insurance segment’s net favorable development of $4.1 million, or 0.4 loss ratio points, for the 2017 period consisted of $7.2 million of net favorable development in short-tailed lines and $6.6 million of net favorable development in long-tailed lines, partially offset by $9.7 million of net adverse development in medium-tailed lines. Net favorable development in short-tailed lines primarily resulted from property (including special risk other than marine) reserves from the 2011 to 2016 accident years. Net favorable development in long-tailed lines reflected net reductions in executive assurance reserves from the 2008 to 2014 accident years and reductions in healthcare reserves across various accident years, partially offset by $13.4 million of net adverse development on construction reserves across various accident years. Net adverse development in medium-tailed lines primarily resulted from an increase in programs of $26.4 million stemming in part from development on a small number of programs in the 2013 to 2015 accident years, partially offset by net favorable development of $16.7 million in other medium-tailed lines, primarily in professional liability and surety.

The mortgage segment’s net favorable development was $53.4 million, or 10.6 loss ratio points, for the 2017 period. The 2017 development was primarily driven by continued lower than expected claim rates on first lien business and subrogation recoveries on second lien business at Arch MI U.S.

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7. Investment Information

At June 30, 2018, total investable assets of $21.82 billion included $19.17 billion held by the Company and $2.65 billion attributable to Watford Re.

Available For Sale Investments

The following table summarizes the fair value and cost or amortized cost of the Company's securities classified as available for sale:

	Estimated Fair Value	Gross Unrealized Gains	Gross Unrealized Losses	Cost or Amortized Cost	OTTI Unrealized Losses (2)
June 30, 2018					
Fixed maturities (1):					
Corporate bonds	$5,535,763	$7,199	$(103,978)	$5,632,542	$ (69)
Mortgage backed securities	488,699	1,699	(4,742)	491,742	(15)
Municipal bonds	1,431,256	7,371	(22,047)	1,445,932	—
Commercial mortgage backed securities	590,198	776	(13,222)	602,644	—
U.S. government and government agencies	2,788,272	6,216	(19,577)	2,801,633	—
Non-U.S. government securities	1,692,783	17,124	(27,480)	1,703,139	—
Asset backed securities	1,820,489	3,310	(16,574)	1,833,753	—
Total	14,347,460	43,695	(207,620)	14,511,385	(84)
Equity securities (3)					
Other investments	—	—	—	—	—
Short-term investments	1,096,798	338	(72)	1,096,532	—
Total	$15,444,258	$44,033	$(207,692)	$15,607,917	$ (84)
December 31, 2017					
Fixed maturities (1):					
Corporate bonds	$4,434,439	$30,943	$(32,340)	$4,435,836	$ (73)
Mortgage backed securities	316,141	1,640	(2,561)	317,062	(15)
Municipal bonds	2,158,840	20,285	(12,308)	2,150,863	—
Commercial mortgage backed securities	545,817	2,131	(4,268)	547,954	—
U.S. government and government agencies	3,484,257	2,188	(28,769)	3,510,838	—
Non-U.S. government securities	1,612,754	48,764	(17,321)	1,581,311	—
Asset backed securities	1,780,143	5,147	(8,614)	1,783,610	—
Total	14,332,391	111,098	(106,181)	14,327,474	(88)
Equity securities	504,333	88,739	(5,583)	421,177	—
Other investments	264,989	66,946	(120)	198,163	—
Short-term investments	1,469,042	650	(563)	1,468,955	—
Total	$16,570,755	$267,433	$(112,447)	$16,415,769	$ (88)

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See "—Securities Lending Agreements."

(2) Represents the total other-than-temporary impairments ("OTTI") recognized in accumulated other comprehensive income ("AOCI"). It does not include the change in fair value subsequent to the impairment measurement date. At June 30, 2018, the net unrealized gain related to securities for which a non-credit OTTI was recognized in AOCI

was $0.2 million, compared to a net unrealized gain of $0.3 million at December 31, 2017.

(3) Effective January 1, 2018, the Company adopted new accounting guidance for financial instruments (see Note 2). As a result, equity securities are no longer accounted for as available for sale and are excluded from this table.

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The following table summarizes, for all available for sale securities in an unrealized loss position, the fair value and gross unrealized loss by length of time the security has been in a continual unrealized loss position:

	Less than 12 Months		12 Months or More		Total	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
June 30, 2018						
Fixed maturities (1):						
Corporate bonds	$4,541,077	$(94,563)	$236,332	$(9,415)	$4,777,409	$(103,978)
Mortgage backed securities	296,876	(4,618)	708	(124)	297,584	(4,742)
Municipal bonds	814,694	(16,888)	109,913	(5,159)	924,607	(22,047)
Commercial mortgage backed securities	351,013	(9,067)	56,382	(4,155)	407,395	(13,222)
U.S. government and government agencies	1,957,338	(18,470)	41,069	(1,107)	1,998,407	(19,577)
Non-U.S. government securities	1,243,055	(24,034)	160,434	(3,446)	1,403,489	(27,480)
Asset backed securities	1,377,269	(14,096)	110,507	(2,478)	1,487,776	(16,574)
Total	10,581,322	(181,736)	715,345	(25,884)	11,296,667	(207,620)
Equity securities (2)						
Other investments	—	—	—	—	—	—
Short-term investments	53,937	(72)	—	—	53,937	(72)
Total	$10,635,259	$(181,808)	$715,345	$(25,884)	$11,350,604	$(207,692)
December 31, 2017						
Fixed maturities (1):						
Corporate bonds	$2,320,716	$(25,411)	$279,082	$(6,929)	$2,599,798	$(32,340)
Mortgage backed securities	221,113	(1,715)	28,380	(846)	249,493	(2,561)
Municipal bonds	1,030,389	(8,438)	132,469	(3,870)	1,162,858	(12,308)
Commercial mortgage backed securities	225,164	(1,899)	57,291	(2,369)	282,455	(4,268)
U.S. government and government agencies	2,646,415	(26,501)	111,879	(2,268)	2,758,294	(28,769)
Non-U.S. government securities	1,218,514	(15,546)	93,530	(1,775)	1,312,044	(17,321)
Asset backed securities	1,111,246	(5,915)	209,207	(2,699)	1,320,453	(8,614)
Total	8,773,557	(85,425)	911,838	(20,756)	9,685,395	(106,181)
Equity securities	166,562	(5,583)	—	—	166,562	(5,583)
Other investments	15,025	(120)	—	—	15,025	(120)
Short-term investments	109,528	(563)	—	—	109,528	(563)
Total	$9,064,672	$(91,691)	$911,838	$(20,756)	$9,976,510	$(112,447)

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See "—Securities Lending Agreements."

(2) Effective January 1, 2018, the Company adopted new accounting guidance for financial instruments (see Note 2). As a result, equity securities are no longer accounted for as available for sale and are excluded from this table.

At June 30, 2018, on a lot level basis, approximately 5,440 security lots out of a total of approximately 7,450 security lots were in an unrealized loss position and the largest single unrealized loss from a single lot in the Company's fixed maturity portfolio was $1.7 million. At December 31, 2017, on a lot level basis, approximately 3,830 security lots out of a total of approximately 7,450 security lots were in an unrealized loss position and the largest single unrealized loss from a single lot in the Company's fixed maturity portfolio was $1.3 million.

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The contractual maturities of the Company's fixed maturities are shown in the following table. Expected maturities, which are management's best estimates, will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	June 30, 2018		December 31, 2017	
Maturity	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost
Due in one year or less	$344,007	$343,938	$550,711	$548,771
Due after one year through five years	8,154,773	8,235,481	7,436,153	7,434,801
Due after five years through 10 years	2,703,341	2,756,097	3,369,635	3,369,750
Due after 10 years	245,953	247,730	333,791	325,526
	11,448,074	11,583,246	11,690,290	11,678,848
Mortgage backed securities	488,699	491,742	316,141	317,062
Commercial mortgage backed securities	590,198	602,644	545,817	547,954
Asset backed securities	1,820,489	1,833,753	1,780,143	1,783,610
Total (1)	$14,347,460	$14,511,385	$14,332,391	$14,327,474

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the securities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See "—Securities Lending Agreements."

Securities Lending Agreements

The Company enters into securities lending agreements with financial institutions to enhance investment income whereby it loans certain of its securities to third parties, primarily major brokerage firms, for short periods of time through a lending agent. The Company maintains legal control over the securities it lends, retains the earnings and cash flows associated with the loaned securities and receives a fee from the borrower for the temporary use of the securities. An indemnification agreement with the lending agent protects the Company in the event a borrower becomes insolvent or fails to return any of the securities on loan from the Company.

The Company receives collateral in the form of cash or securities. Cash collateral primarily consists of short term investments. At June 30, 2018, the fair value of the cash collateral received on securities lending was $28.0 million and the fair value of security collateral received was $209.0 million. At December 31, 2017, the fair value of the cash collateral received on securities lending was $199.9 million, and the fair value of security collateral received was $276.7 million.

The Company's securities lending transactions were accounted for as secured borrowings with significant investment categories as follows:

	Remaining Contractual Maturity of the Agreements				
	Overnight and Continuous	Less than 30 Days	30-90 Days	90 Days or More	Total
June 30, 2018					
U.S. government and government agencies	$147,509	$—	$48,268	$ —	$195,777
Corporate bonds	29,265	—	—	—	29,265
Equity securities	11,906	—	—	—	11,906
Total	$188,680	$—	$48,268	$ —	$236,948
					$—

Gross amount of recognized liabilities for securities lending in offsetting disclosure in Note 9					
Amounts related to securities lending not included in offsetting disclosure in Note 9					$236,948
December 31, 2017					
U.S. government and government agencies	$343,425	$20,309	$76,086	$ —	$439,820
Corporate bonds	28,003	—	—	—	28,003
Equity securities	8,782	—	—	—	8,782
Total	$380,210	$20,309	$76,086	$ —	$476,605
Gross amount of recognized liabilities for securities lending in offsetting disclosure in Note 9					$—
Amounts related to securities lending not included in offsetting disclosure in Note 9					$476,605

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Other Investments
The following table summarizes the Company's other investments, including available for sale and fair value option components:

	June 30, 2018	December 31, 2017
Available for sale securities:		
Asian and emerging markets	$—	$ 135,140
Investment grade fixed income	—	53,878
Credit related funds	—	18,365
Other	—	57,606
Total available for sale (1)	—	264,989
Fair value option:		
Term loan investments (par value: $1,321,154 and $1,223,453)	$1,286,305	$ 1,200,882
Mezzanine debt funds	257,750	252,160
Credit related funds	199,437	175,422
Investment grade fixed income	98,240	102,347
Asian and emerging markets	350,308	258,541
Other (2)	136,864	147,029
Total fair value option	2,328,904	2,136,381
Total	$2,328,904	$ 2,401,370

(1) The Company reviewed the accounting treatment for three limited partnership investments which were accounted for as available for sale at December 31, 2017 during the 2018 first quarter and determined, based on reconsideration during the period of the Company's percentage ownership, that the equity method of accounting was appropriate for such investments.

(2) Includes fund investments with strategies in mortgage servicing rights, transportation, infrastructure assets and other.

Certain of the Company's other investments are in investment funds for which the Company has the option to redeem at agreed upon values as described in each investment fund's subscription agreement. Depending on the terms of the various subscription agreements, investments in investment funds may be redeemed daily, monthly, quarterly or on other terms. Two common redemption restrictions which may impact the Company's ability to redeem these investment funds are gates and lockups. A gate is a suspension of redemptions which may be implemented by the general partner or investment manager of the fund in order to defer, in whole or in part, the redemption request in the event the aggregate amount of redemption requests exceeds a predetermined percentage of the investment fund's net assets which may otherwise hinder the general partner or investment manager's ability to liquidate holdings in an orderly fashion in order to generate the cash necessary to fund extraordinarily large redemption payouts. A lockup period is the initial amount of time an investor is contractually required to hold the security before having the ability to redeem. If the investment funds are eligible to be redeemed, the time to redeem such fund can take weeks or months following the notification.

Fair Value Option
The following table summarizes the Company's assets and liabilities which are accounted for using the fair value option:

	June 30, 2018	December 31, 2017
Fixed maturities	$1,428,503	$ 1,642,855
Other investments	2,328,904	2,136,381

Short-term investments	217,066	297,426
Equity securities	137,138	139,575
Investments accounted for using the fair value option	$4,111,611	$ 4,216,237

Limited Partnership Interests

In the normal course of its activities, the Company invests in limited partnerships as part of its overall investment strategy. Such amounts are included in ‘investments accounted for using the equity method’ and ‘investments accounted for using the fair value option.’ The Company has determined that it is not required to consolidate these investments because it is not the primary beneficiary of the funds. The Company’s maximum exposure to loss with respect to these investments is limited to the investment carrying amounts reported in the Company’s consolidated balance sheet and any unfunded commitment.

The following table summarizes investments in limited partnership interests where the Company has a variable interest by balance sheet line item:

	June 30, 2018	December 31, 2017
Investments accounted for using the equity method (1)	$1,292,573	$ 1,041,321
Investments accounted for using the fair value option (2)	130,471	130,471
Total	$1,423,044	$ 1,171,792

(1) Aggregate unfunded commitments were $994.7 million at June 30, 2018, compared to $1.02 billion at December 31, 2017.

(2) Aggregate unfunded commitments were $91.0 million at June 30, 2018, compared to $100.4 million at December 31, 2017.

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Net Investment Income
The components of net investment income were derived from the following sources:

	June 30, 2018	2017
Three Months Ended		
Fixed maturities	$115,110	$94,270
Equity securities	4,777	3,654
Short-term investments	4,392	2,016
Other (1)	38,168	34,076
Gross investment income	162,447	134,016
Investment expenses	(26,779)	(22,892)
Net investment income	$135,668	$111,124
Six Months Ended		
Fixed maturities	$222,997	$188,663
Equity securities	7,345	6,297
Short-term investments	9,252	3,775
Other (1)	75,542	73,656
Gross investment income	315,136	272,391
Investment expenses	(52,744)	(43,393)
Net investment income	$262,392	$228,998

(1) Includes income distributions from investment funds, term loan investments and other items.

Equity in Net Income (Loss) of Investment Funds Accounted for Using the Equity Method
The Company recorded $8.5 million of equity in net income related to investment funds accounted for using the equity method in the 2018 second quarter, compared to $32.7 million for the 2017 second quarter, and $36.5 million for the six months ended June 30, 2018, compared to $80.8 million for the 2017 period. In applying the equity method, investments are initially recorded at cost and are subsequently adjusted based on the Company’s proportionate share of the net income or loss of the funds (which include changes in the market value of the underlying securities in the funds). Such investments are generally recorded on a one to three month lag based on the availability of reports from the investment funds.

Net Realized Gains (Losses)
Net realized gains (losses) were as follows, excluding net impairment losses recognized in earnings:

	June 30, 2018	2017
Three Months Ended		
Available for sale securities:		
Gross gains on investment sales	$18,777	$76,730
Gross losses on investment sales	(57,711)	(52,619)
Change in fair value of assets and liabilities accounted for using the fair value option:		
Fixed maturities	(22,927)	9,656
Other investments	(254)	637
Equity securities	1,230	2,829
Short-term investments	(136)	3,328
Equity securities, at fair value (1):		
Net realized gains (losses) on sales during the period	(5,918)	—

Net unrealized gains (losses) on equity securities still held at reporting date	(7,278)	—
Derivative instruments (2)	(2,146)	(4,770)
Other (3)	(248)	(14,056)
Net realized gains (losses)	$(76,611)	$21,735
Six Months Ended		
Available for sale securities:		
Gross gains on investment sales	$33,742	$145,905
Gross losses on investment sales	(140,262)	(113,981)
Change in fair value of assets and liabilities accounted for using the fair value option:		
Fixed maturities	(40,478)	30,197
Other investments	(6,628)	17,885
Equity securities	7,898	6,374
Short-term investments	(287)	3,332
Equity securities, at fair value (1):		
Net realized gains (losses) on sales during the period	(11,286)	—
Net unrealized gains (losses) on equity securities still held at reporting date	(14,861)	—
Derivative instruments (2)	(6,109)	(13,951)
Other (3)	(9,338)	(19,873)
Net realized gains (losses)	$(187,609)	$55,888

(1) Pursuant to new accounting guidance (see Note 2), changes in fair value on equity securities are recorded through net income effective January 1, 2018.
(2) See Note 9 for information on the Company's derivative instruments.
(3) Includes the re-measurement of contingent consideration liability amounts.

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Net Impairment Losses Recognized in Earnings
The Company performs quarterly reviews of its available for sale investments in order to determine whether declines in fair value below the amortized cost basis were considered other-than-temporary in accordance with applicable guidance.
The following table details the net impairment losses recognized in earnings by asset class:

	June 30, 2018	June 30, 2017
Three Months Ended		
Fixed maturities:		
Mortgage backed securities	$(81)	$(92)
Corporate bonds	(241)	(1,401)
Asset backed securities	(148)	—
Municipal bonds	—	(173)
Total	(470)	(1,666)
Other investments	—	(64)
Net impairment losses recognized in earnings	$(470)	$(1,730)
Six Months Ended		
Fixed maturities:		
Mortgage backed securities	$(123)	$(1,411)
Corporate bonds	(361)	(1,402)
Non-U.S. government securities	—	(198)
Asset backed securities	(148)	—
Municipal bonds	—	(173)
Total	(632)	(3,184)
Equity securities	—	(186)
Other investments	—	(167)
Net impairment losses recognized in earnings	$(632)	$(3,537)

Net impairment losses recognized in earnings in the 2018 periods were primarily related to foreign currency fluctuations on corporate bonds and asset backed securities.
The Company believes that the $0.1 million of OTTI included in accumulated other comprehensive income at June 30, 2018 on the securities which were considered by the Company to be impaired was due to market and sector-related factors (i.e., not credit losses). At June 30, 2018, the Company did not intend to sell these securities, or any other securities which were in an unrealized loss position, and determined that it is more likely than not that the Company will not be required to sell such securities before recovery of their cost basis.

The following table provides a roll forward of the amount related to credit losses recognized in earnings for which a portion of an OTTI was recognized in accumulated other comprehensive income:

	June 30, 2018	June 30, 2017
Three Months Ended		
Balance at start of period	$767	$12,537
Credit loss impairments recognized on securities not previously impaired	—	31
Credit loss impairments recognized on securities previously impaired	—	172
Reductions for increases in cash flows expected to be collected that are recognized over the remaining life of the security	—	—

Reductions for securities sold during the period	(69)	(8,303)
Balance at end of period	$698	$4,437
Six Months Ended		
Balance at start of year	$767	$13,138
Credit loss impairments recognized on securities not previously impaired	—	31
Credit loss impairments recognized on securities previously impaired	—	195
Reductions for increases in cash flows expected to be collected that are recognized over the remaining life of the security	—	—
Reductions for securities sold during the period	(69)	(8,927)
Balance at end of period	$698	$4,437

Restricted Assets

The Company is required to maintain assets on deposit, which primarily consist of fixed maturities, with various regulatory authorities to support its insurance and reinsurance operations. The Company's insurance and reinsurance subsidiaries maintain assets in trust accounts as collateral for insurance and reinsurance transactions with affiliated companies and also have investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties. See note 16, "Commitments and Contingencies," of the notes to consolidated financial statements in the Company's 2017 Form 10-K.

The following table details the value of the Company's restricted assets:

	June 30, 2018	December 31, 2017
Assets used for collateral or guarantees:		
Affiliated transactions	$4,549,122	$ 4,323,726
Third party agreements	1,537,336	1,674,304
Deposits with U.S. regulatory authorities	701,026	616,987
Deposits with non-U.S. regulatory authorities	58,371	55,895
Total restricted assets	$6,845,855	$ 6,670,912

8. Fair Value

Accounting guidance regarding fair value measurements addresses how companies should measure fair value when they are required to use a fair value measure for recognition or disclosure purposes under GAAP and provides a common definition of fair value to be used throughout GAAP. It defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly fashion between market participants at the measurement date. In addition, it establishes a three-level valuation hierarchy for the disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The level in the hierarchy within which a given fair value measurement falls is determined based on the lowest level input that is significant to the measurement (Level 1 being the highest priority and Level 3 being the lowest priority).

The levels in the hierarchy are defined as follows:

Level 1:	Inputs to the valuation methodology are observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets
Level 2:	Inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument
Level 3:	Inputs to the valuation methodology are unobservable and significant to the fair value measurement

Following is a description of the valuation methodologies used for securities measured at fair value, as well as the general classification of such securities pursuant to the valuation hierarchy. The Company reviews its securities measured at fair value and discusses the proper classification of such investments with investment advisers and others.

The Company determines the existence of an active market based on its judgment as to whether transactions for the financial instrument occur in such market with sufficient frequency and volume to provide reliable pricing information. The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. The Company uses quoted values and other data provided by nationally recognized independent pricing sources as inputs into its process for determining fair values of its fixed maturity investments. To validate the techniques or models used by pricing sources, the Company's review process includes, but is not limited to: (i) quantitative analysis (e.g.,

comparing the quarterly return for each managed portfolio to its target benchmark, with significant differences identified and investigated); (ii) a review of the average number of prices obtained in the pricing process and the range of resulting fair values; (iii) initial and ongoing evaluation of methodologies used by outside parties to calculate fair value; (iv) a comparison of the fair value estimates to the Company’s knowledge of the current market; (v) a comparison of the pricing services' fair values to other pricing services' fair values for the same investments; and (vi) periodic back-testing, which includes randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates from the pricing service. A price source hierarchy was maintained in order to determine which price source would be used (i.e., a price obtained from a pricing service with more seniority in the hierarchy will be used over a less senior one in all cases). The hierarchy prioritizes pricing services based on availability and reliability and assigns the highest priority to index providers. Based on the above review, the Company will challenge any prices for a security or portfolio which are considered not to be representative of fair value. The Company did not adjust any of the prices obtained from the independent pricing sources at June 30, 2018.

In certain circumstances, when fair values are unavailable from these independent pricing sources, quotes are obtained directly from broker-dealers who are active in the corresponding markets. Such quotes are subject to the validation procedures noted above. Of the $20.24 billion of financial assets and liabilities measured at fair value at June 30, 2018, approximately $276.8 million, or 1.4%, were priced using non-binding broker-dealer quotes. Of the $20.92 billion of financial assets and liabilities measured at fair value at December 31, 2017, approximately $181.5 million, or 0.9%, were priced using non-binding broker-dealer quotes.

Fixed maturities

The Company uses the market approach valuation technique to estimate the fair value of its fixed maturity securities, when possible. The market approach includes obtaining prices from independent pricing services, such as index providers and pricing vendors, as well as to a lesser extent quotes from broker-dealers. The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. Each source has its own proprietary method for determining the fair value of securities that are not actively traded. In general, these methods involve the use of “matrix pricing” in which the independent pricing source uses observable market inputs including, but not limited to, investment yields, credit risks and spreads, benchmarking of like securities, broker-dealer quotes, reported trades and sector groupings to determine a reasonable fair value.

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The following describes the significant inputs generally used to determine the fair value of the Company's fixed maturity securities by asset class:
•U.S. government and government agencies — valuations provided by independent pricing services, with all prices provided through index providers and pricing vendors. The Company determined that all U.S. Treasuries would be classified as Level 1 securities due to observed levels of trading activity, the high number of strongly correlated pricing quotes received on U.S. Treasuries and other factors. The fair values of U.S. government agency securities are generally determined using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of U.S. government agency securities are classified within Level 2.
•Corporate bonds — valuations provided by independent pricing services, substantially all through index providers and pricing vendors with a small amount through broker-dealers. The fair values of these securities are generally determined using the spread above the risk-free yield curve. These spreads are generally obtained from the new issue market, secondary trading and from broker-dealers who trade in the relevant security market. As the significant inputs used in the pricing process for corporate bonds are observable market inputs, the fair value of these securities are classified within Level 2. A small number of securities are included in Level 3 due to a low level of transparency on the inputs used in the pricing process.
•Mortgage-backed securities — valuations provided by independent pricing services, substantially all through pricing vendors and index providers with a small amount through broker-dealers. The fair values of these securities are generally determined through the use of pricing models (including Option Adjusted Spread) which use spreads to determine the expected average life of the securities. These spreads are generally obtained from the new issue market, secondary trading and from broker-dealers who trade in the relevant security market. The pricing services also review prepayment speeds and other indicators, when applicable. As the significant inputs used in the pricing process for mortgage-backed securities are observable market inputs, the fair value of these securities are classified within Level 2. A small number of securities are included in Level 3 due to a low level of transparency on the inputs used in the pricing process.
•Municipal bonds — valuations provided by independent pricing services, with all prices provided through index providers and pricing vendors. The fair values of these securities are generally determined using spreads obtained from broker-dealers who trade in the relevant security market, trade prices and the new issue market. As the significant inputs used in the pricing process for municipal bonds are observable market inputs, the fair value of these securities are classified within Level 2.

•Commercial mortgage-backed securities — valuations provided by independent pricing services, substantially all through index providers and pricing vendors with a small amount through broker-dealers. The fair values of these securities are generally determined through the use of pricing models which use spreads to determine the appropriate average life of the securities. These spreads are generally obtained from the new issue market, secondary trading and from broker-dealers who trade in the relevant security market. The pricing services also review prepayment speeds and other indicators, when applicable. As the significant inputs used in the pricing process for commercial mortgage-backed securities are observable market inputs, the fair value of these securities are classified within Level 2. A small number of securities are included in Level 3 due to a low level of transparency on the inputs used in the pricing process.
•Non-U.S. government securities — valuations provided by independent pricing services, with all prices provided through index providers and pricing vendors. The fair values of these securities are generally based on international indices or valuation models which include daily observed yield curves, cross-currency basis index spreads and country credit spreads. As the significant inputs used in the pricing process for non-U.S. government securities are observable market inputs, the fair value of these securities are classified within Level 2.
•Asset-backed securities — valuations provided by independent pricing services, substantially all through index providers and pricing vendors with a small amount through broker-dealers. The fair values of these securities are generally

determined through the use of pricing models (including Option Adjusted Spread) which use spreads to determine the appropriate average life of the securities. These spreads are generally obtained from the new issue market, secondary trading and from broker-dealers who trade in the relevant security market. The pricing services also review prepayment speeds and other indicators, when applicable. As the significant inputs used in the pricing process for asset-backed securities are observable market inputs, the fair value of these securities are classified within Level 2. A small number of securities are included in Level 3 due to a low level of transparency on the inputs used in the pricing process.

Equity securities

The Company determined that exchange-traded equity securities would be included in Level 1 as their fair values are based on quoted market prices in active markets. Other equity securities are included in Level 2 of the valuation hierarchy.

Other investments

The Company determined that exchange-traded investments in mutual funds would be included in Level 1 as their fair values are based on quoted market prices in active markets. Other investments also include term loan investments for which fair values are estimated by using quoted prices of term loan investments with similar characteristics, pricing models or matrix pricing. Such investments are generally classified within Level 2. The fair values for certain of the Company's other investments are determined using net asset values as advised by external fund managers. The net asset value is based on the fund manager's valuation of the underlying holdings in accordance with the fund's governing documents. In accordance with applicable accounting guidance, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. A small number of securities are included in Level 3 due to the lack of an available independent price source for such securities.

Derivative instruments

The Company's futures contracts, foreign currency forward contracts, interest rate swaps and other derivatives trade in the over-the-counter derivative market. The Company uses the market approach valuation technique to estimate the fair value for these derivatives based on significant observable market inputs from third party pricing vendors, non-binding broker-dealer quotes and/or recent trading activity. As the significant inputs used in the pricing process for these derivative instruments are observable market inputs, the fair value of these securities are classified within Level 2.

Short-term investments

The Company determined that certain of its short-term investments held in highly liquid money market-type funds, Treasury bills and commercial paper would be included in Level 1 as their fair values are based on quoted market prices in active markets. The fair values of other short-term investments are generally determined using the spread above the risk-free yield curve and are classified within Level 2.

Contingent consideration liabilities

Contingent consideration liabilities (included in 'other liabilities' in the consolidated balance sheets) include amounts related to the acquisition of CMG Mortgage Insurance Company and its affiliated mortgage insurance companies and other acquisitions. Such amounts are remeasured at fair value at each balance sheet date with changes in fair value recognized in 'net realized gains (losses).' To determine the fair value of contingent consideration liabilities, the Company estimates future payments using an income approach based on modeled inputs which include a weighted average cost of capital. The Company determined that contingent consideration liabilities would be included within Level 3.

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The following table presents the Company's financial assets and liabilities measured at fair value by level at June 30, 2018:

	Estimated Fair Value	Estimated Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets measured at fair value (1):				
Available for sale securities:				
Fixed maturities:				
Corporate bonds	$5,535,763	$—	$5,526,990	$ 8,773
Mortgage backed securities	488,699	—	488,352	347
Municipal bonds	1,431,256	—	1,431,256	—
Commercial mortgage backed securities	590,198	—	590,169	29
U.S. government and government agencies	2,788,272	2,660,621	127,651	—
Non-U.S. government securities	1,692,783	—	1,692,783	—
Asset backed securities	1,820,489	—	1,820,489	—
Total	14,347,460	2,660,621	11,677,690	9,149
Short-term investments	1,096,798	1,053,661	43,137	—
Equity securities, at fair value	546,075	493,975	52,100	—
Derivative instruments (4)	31,623	—	31,623	—
Fair value option:				
Corporate bonds	936,840	—	925,505	11,335
Non-U.S. government bonds	132,162	—	132,162	—
Mortgage backed securities	16,410	—	16,410	—
Municipal bonds	7,082	—	7,082	—
Commercial mortgage backed securities	1,306	—	1,306	—
Asset backed securities	214,718	—	214,718	—
U.S. government and government agencies	119,985	119,875	110	—
Short-term investments	217,066	19,869	197,197	—
Equity securities	137,138	65,400	71,738	—
Other investments	1,260,645	65,665	1,136,766	58,214
Other investments measured at net asset value (2)	1,068,259			
Total	4,111,611	270,809	2,702,994	69,549
Total assets measured at fair value	$20,133,567	$4,479,066	$14,507,544	$ 78,698
Liabilities measured at fair value:				
Contingent consideration liabilities	$(63,930)	$—	$—	$ (63,930)
Securities sold but not yet purchased (3)	(24,529)	—	(24,529)	—
Derivative instruments (4)	(22,398)	—	(22,398)	—

Total liabilities measured at fair value	$(110,857)	$—	$(46,927)	$ (63,930)

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the securities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See Note 7, “Investment Information—Securities Lending Agreements.”

(2) In accordance with applicable accounting guidance, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheets.

(3) Represents the Company’s obligations to deliver securities that it did not own at the time of sale. Such amounts are included in “other liabilities” on the Company’s consolidated balance sheets.

(4) See Note 9, “Derivative Instruments.”

The following table presents the Company’s financial assets and liabilities measured at fair value by level at December 31, 2017:

	Estimated Fair Value	Estimated Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets measured at fair value (1):				
Available for sale securities:				
Fixed maturities:				
Corporate bonds	$4,434,439	$—	$4,424,979	$ 9,460
Mortgage backed securities	316,141	—	315,754	387
Municipal bonds	2,158,840	—	2,158,840	—
Commercial mortgage backed securities	545,817	—	545,277	540
U.S. government and government agencies	3,484,257	3,408,902	75,355	—
Non-U.S. government securities	1,612,754	—	1,612,754	—
Asset backed securities	1,780,143	—	1,775,143	5,000
Total	14,332,391	3,408,902	10,908,102	15,387
Equity securities	504,333	498,182	6,151	—
Short-term investments	1,469,042	1,420,732	48,310	—
Other investments	76,427	74,611	1,816	—
Other investments measured at net asset value (2)	188,562			
Total other investments	264,989	74,611	1,816	—
Derivative instruments (4)	15,747	—	15,747	—
Fair value option:				
Corporate bonds	1,068,725	—	1,056,508	12,217
Non-U.S. government bonds	195,788	—	195,788	—
Mortgage backed securities	20,491	—	20,491	—
Municipal bonds	15,210	—	15,210	—
Commercial mortgage backed securities	11,997	—	11,997	—
Asset backed securities	99,354	—	99,354	—
U.S. government and government agencies	231,290	231,019	271	—
Short-term investments	297,426	40,166	257,260	—
Equity securities	139,575	67,440	72,135	—
Other investments	1,128,094	82,291	986,636	59,167
Other investments measured at net asset value (2)	1,008,287			
Total	4,216,237	420,916	2,715,650	71,384
Total assets measured at fair value	$20,802,739	$5,823,343	$13,695,776	$ 86,771

Liabilities measured at fair value:				
Contingent consideration liabilities	$(60,996)	$—	$—	$ (60,996)
Securities sold but not yet purchased (3)	(34,375)	—	(34,375)	—
Derivative instruments (4)	(20,464)	—	(20,464)	—
Total liabilities measured at fair value	$(115,835)	$—	$(54,839)	$ (60,996)

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the securities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See Note 7, “Investment Information—Securities Lending Agreements.”

(2) In accordance with applicable accounting guidance, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheets.

(3) Represents the Company’s obligations to deliver securities that it did not own at the time of sale. Such amounts are included in “other liabilities” on the Company’s consolidated balance sheets.

(4) See Note 9, “Derivative Instruments.”

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The following table presents a reconciliation of the beginning and ending balances for all financial assets and liabilities measured at fair value on a recurring basis using Level 3 inputs:

	Assets					Liabilities
s	Available For Sale		Fair Value Option			
	Structured Securities (1)	Corporate Bonds	Corporate Bonds	Other Investments	Total	Contingent Consideration Liabilities
Three Months Ended June 30, 2018						
Balance at beginning of period	$5,413	$9,152	$11,872	$ 58,452	$84,889	$ (62,449)
Total gains or (losses) (realized/unrealized)						
Included in earnings (2)	3	—	(537)	336	(198)	(1,481)
Included in other comprehensive income	(4)	(316)	—	—	(320)	—
Purchases, issuances, sales and settlements						
Purchases	—	393	—	—	393	—
Issuances	—	—	—	—	—	—
Sales	(5,003)	—	—	(74)	(5,077)	—
Settlements	(33)	(456)	—	(500)	(989)	—
Transfers in and/or out of Level 3	—	—	—	—	—	—
Balance at end of period	$376	$8,773	$11,335	$ 58,214	$78,698	$ (63,930)
Three Months Ended June 30, 2017						
Balance at beginning of period	$10,637	$18,601	$—	$ 25,000	$54,238	$ (125,544)
Total gains or (losses) (realized/unrealized)						
Included in earnings (2)	3,072	636	—	—	3,708	(3,441)
Included in other comprehensive income	—	—	—	—	—	—
Purchases, issuances, sales and settlements						
Purchases	—	4,935	—	—	4,935	—
Issuances	—	—	—	—	—	—
Sales	(13,640)	(12,602)	—	—	(26,242)	—
Settlements	(69)	—	—	—	(69)	71,739
Transfers in and/or out of Level 3	—	—	—	—	—	—
Balance at end of period	$—	$11,570	$—	$ 25,000	$36,570	$ (57,246)
Six Months Ended June 30, 2018						
Balance at beginning of year	$5,927	$9,460	$12,217	$ 59,167	$86,771	$ (60,996)
Total gains or (losses) (realized/unrealized)						
Included in earnings (2)	4	—	(612)	(379)	(987)	(2,934)
Included in other comprehensive income	(8)	(168)	—	—	(176)	—
Purchases, issuances, sales and settlements						
Purchases	—	393	—	—	393	—
Issuances	—	—	—	—	—	—
Sales	(5,003)	—	—	(74)	(5,077)	—
Settlements	(544)	(912)	(270)	(500)	(2,226)	—
Transfers in and/or out of Level 3	—	—	—	—	—	—
Balance at end of period	$376	$8,773	$11,335	$ 58,214	$78,698	$ (63,930)
Six Months Ended June 30, 2017						

Balance at beginning of year	$11,289	$18,344	$—	$ 25,000	$54,633	$ (122,350)
Total gains or (losses) (realized/unrealized)						
Included in earnings (2)	3,779	893	—	—	4,672	(7,087)
Included in other comprehensive income	—	—	—	—	—	—
Purchases, issuances, sales and settlements						
Purchases	—	4,935	—	—	4,935	—
Issuances	—	—	—	—	—	—
Sales	(13,640)	(12,602)	—	—	(26,242)	—
Settlements	(1,428)	—	—	—	(1,428)	72,191
Transfers in and/or out of Level 3	—	—	—	—	—	—
Balance at end of period	$—	$11,570	$—	$ 25,000	$36,570	$ (57,246)

(1) Includes asset backed securities, mortgage backed securities and commercial mortgage backed securities.
(2) Gains or losses were included in net realized gains (losses).

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Financial Instruments Disclosed, But Not Carried, At Fair Value
The Company uses various financial instruments in the normal course of its business. The carrying values of cash, accrued investment income, receivable for securities sold, certain other assets, payable for securities purchased and certain other liabilities approximated their fair values at June 30, 2018, due to their respective short maturities. As these financial instruments are not actively traded, their respective fair values are classified within Level 2.
At June 30, 2018, the Company’s senior notes were carried at their cost, net of debt issuance costs, of $1.73 billion and had a fair value of $1.89 billion. At December 31, 2017, Company’s senior notes were carried at their cost, net of debt issuance costs, of $1.73 billion and had a fair value of $2.04 billion. The fair values of the senior notes were obtained from a third party pricing service and are based on observable market inputs. As such, the fair values of the senior notes are classified within Level 2.

9. Derivative Instruments

The Company’s investment strategy allows for the use of derivative instruments. The Company’s derivative instruments are recorded on its consolidated balance sheets at fair value. The Company utilizes exchange traded U.S. Treasury note, Eurodollar and other futures contracts and commodity futures to manage portfolio duration or replicate investment positions in its portfolios and the Company routinely utilizes foreign currency forward contracts, currency options, index futures contracts and other derivatives as part of its total return objective. In addition, certain of the Company’s investments are managed in portfolios which incorporate the use of foreign currency forward contracts which are intended to provide an economic hedge against foreign currency movements.
In addition, the Company purchases to-be-announced mortgage backed securities (“TBAs”) as part of its investment strategy. TBAs represent commitments to purchase a future issuance of agency mortgage backed securities. For the period between purchase of a TBA and issuance of the underlying security, the Company’s position is accounted for as a derivative. The Company purchases TBAs in both long and short positions to enhance investment performance and as part of its overall investment strategy.

The following table summarizes information on the fair values and notional values of the Company’s derivative instruments:

	Estimated Fair Value		
	Asset Derivatives	Liability Derivatives	Notional Value (1)
June 30, 2018			
Futures contracts (2)	$556	$ (3,425)	$1,276,189
Foreign currency forward contracts (2)	18,183	(7,732)	1,072,743
TBAs (3)	14,761	—	14,480
Other (2)	12,884	(11,241)	1,924,299
Total	$46,384	$ (22,398)	
December 31, 2017			
Futures contracts (2)	$3,371	$ (1,542)	$1,452,497
Foreign currency forward contracts (2)	4,478	(4,381)	686,941
TBAs (3)	27,184	—	27,066
Other (2)	7,898	(14,541)	1,457,345
Total	$42,931	$ (20,464)	

(1) Represents the absolute notional value of all outstanding contracts, consisting of long and short positions.
(2) The fair value of asset derivatives are included in ‘other assets’ and the fair value of liability derivatives are included in ‘other liabilities.’

(3) The fair value of TBAs are included in 'fixed maturities available for sale, at fair value.'

The Company did not hold any derivatives which were designated as hedging instruments at June 30, 2018 or December 31, 2017.

The Company's derivative instruments can be traded under master netting agreements, which establish terms that apply to all derivative transactions with a counterparty. In the event of a bankruptcy or other stipulated event of default, such agreements provide that the non-defaulting party may elect to terminate all outstanding derivative transactions, in which case all individual derivative positions (loss or gain) with a counterparty are closed out and netted and replaced with a single amount, usually referred to as the termination amount, which is expressed in a single currency. The resulting single net amount, where positive, is payable to the party "in-the-money" regardless of whether or not it is the defaulting party, unless the parties have agreed that only the non-defaulting party is entitled to receive a termination payment where the net amount is positive and is in its favor. Contractual close-out netting reduces derivatives credit exposure from gross to net exposure. The remaining derivatives included in the table above were not subject to a master netting agreement.

At June 30, 2018, asset derivatives and liability derivatives of $44.0 million and $20.1 million, respectively, were subject to a master netting agreement, compared to $40.6 million and $19.6 million, respectively, at December 31, 2017. The

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remaining derivatives included in the preceding table were not subject to a master netting agreement.
Realized and unrealized contract gains and losses on the Company's derivative instruments are reflected in 'net realized gains (losses)' in the consolidated statements of income, as summarized in the following table:

Derivatives not designated as hedging instruments:	June 30, 2018	2017
Three Months Ended		
Net realized gains (losses):		
Futures contracts	$(240)	$(5,310)
Foreign currency forward contracts	(1,692)	(272)
TBAs	—	86
Other	(214)	726
Total	$(2,146)	$(4,770)
Six Months Ended		
Net realized gains (losses):		
Futures contracts	$4,790	$2,410
Foreign currency forward contracts	(7,616)	(12,038)
TBAs	(97)	21
Other	(3,186)	(4,344)
Total	$(6,109)	$(13,951)

10. Commitments and Contingencies

Investment Commitments

The Company's investment commitments, which are primarily related to agreements entered into by the Company to invest in funds and separately managed accounts when called upon, were approximately $1.63 billion at June 30, 2018, compared to $1.70 billion at December 31, 2017.

Interest Paid

Interest paid on the Company's senior notes and other borrowings were $60.9 million for the six months ended June 30, 2018, compared to $58.0 million for the 2017 period.

11. Variable Interest Entities and Noncontrolling Interests

A variable interest entity ("VIE") refers to an entity that has characteristics such as (i) insufficient equity at risk to allow the entity to finance its activities without additional financial support or (ii) instances where the equity investors, as a group, do not have characteristics of a controlling financial interest. The primary beneficiary of a VIE is defined as the variable interest holder that is determined to have the controlling financial interest as a result of having both (i) the power to direct the activities of a VIE that most significantly impact the economic performance of the VIE and (ii) the obligation to absorb losses or right to receive benefits from the VIE that could potentially be significant to the VIE. If a company is determined to be the primary beneficiary, it is required to consolidate the VIE in its financial statements.

Watford Holdings Ltd.

In March 2014, the Company invested $100.0 million and acquired approximately 11% of Watford Holdings Ltd.'s common equity and a warrant to purchase additional common equity. Watford Holdings Ltd. is the parent of Watford Re Ltd., a multi-line Bermuda reinsurance company (together with Watford Holdings Ltd., "Watford Re"). Watford Re is considered a VIE and the Company concluded that it is the primary beneficiary of Watford Re. As such, the results

of Watford Re are included in the Company’s consolidated financial statements.
The Company does not guarantee or provide credit support for Watford Re, and the Company’s financial exposure to Watford Re is limited to its investment in Watford Re’s common and preferred shares and counterparty credit risk (mitigated by collateral) arising from reinsurance transactions.

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The following table provides the carrying amount and balance sheet caption in which the assets and liabilities of Watford Re are reported:

	June 30, 2018	December 31, 2017
Assets		
Investments accounted for using the fair value option	$2,385,316	$2,426,066
Fixed maturities available for sale, at fair value	279,177	—
Equity securities, at fair value	63,010	—
Cash	45,644	54,503
Accrued investment income	18,108	18,261
Premiums receivable	232,842	177,492
Reinsurance recoverable on unpaid and paid losses and LAE	54,299	42,777
Ceded unearned premiums	55,853	24,762
Deferred acquisition costs	88,752	85,961
Receivable for securities sold	31,387	36,374
Goodwill and intangible assets	7,650	7,650
Other assets	75,478	140,808
Total assets of consolidated VIE	$3,337,516	$3,014,654
Liabilities		
Reserves for losses and loss adjustment expenses	$899,395	$798,262
Unearned premiums	384,537	330,644
Reinsurance balances payable	41,185	18,424
Revolving credit agreement borrowings	447,289	441,132
Payable for securities purchased	132,164	42,501
Other liabilities	244,320	215,186
Total liabilities of consolidated VIE	$2,148,890	$1,846,149
Redeemable noncontrolling interests	$220,805	$220,622

For the six months ended June 30, 2018, Watford Re generated $92.4 million of cash provided by operating activities, $168.0 million of cash used for investing activities and $2.1 million of cash used for financing activities, compared to $134.4 million of cash provided by operating activities, $63.5 million of cash used for investing activities and $76.4 million of cash used for financing activities for the six months ended June 30, 2017.

Non-redeemable noncontrolling interests

The Company accounts for the portion of Watford Re's common equity attributable to third party investors in the shareholders' equity section of its consolidated balance sheets. The noncontrolling ownership in Watford Re's common shares was approximately 89% at June 30, 2018. The portion of Watford Re's income or loss attributable to third party investors is recorded in the consolidated statements of income in 'net (income) loss attributable to noncontrolling interests.'

The following table sets forth activity in the non-redeemable noncontrolling interests:

	June 30, 2018	2017
Three Months Ended		
Balance, beginning of period	$854,112	$868,186
Amounts attributable to noncontrolling interests	8,116	9,346

Other comprehensive income attributable to noncontrolling interests	(1,075)	(76)
Balance, end of period	$861,153	$877,456
Six Months Ended		
Balance, beginning of year	$843,411	$851,854
Amounts attributable to noncontrolling interests	19,492	25,670
Other comprehensive income attributable to noncontrolling interests	(1,750)	(68)
Balance, end of period	$861,153	$877,456

Redeemable noncontrolling interests

The Company accounts for redeemable noncontrolling interests in the mezzanine section of its consolidated balance sheets in accordance with applicable accounting guidance. Such redeemable noncontrolling interests relate to the 9,065,200 cumulative redeemable preference shares ("Watford Preference Shares") issued in March 2014 with a par value of $0.01 per share and a liquidation preference of $25.00 per share. Preferred dividends, including the accretion of the discount and issuance costs, are included in 'net (income) loss attributable to noncontrolling interests' in the Company's consolidated statements of income.

The following table sets forth activity in the redeemable non-controlling interests:

	June 30,	
	2018	2017
Three Months Ended		
Balance, beginning of period	$206,013	$205,644
Accretion of preference share issuance costs	92	92
Balance, end of period	$206,105	$205,736
Six Months Ended		
Balance, beginning of year	$205,922	$205,553
Accretion of preference share issuance costs	183	183
Balance, end of period	$206,105	$205,736

The portion of Watford Re's income or loss attributable to third party investors, recorded in the Company's consolidated statements of income in 'net (income) loss attributable to noncontrolling interests,' are summarized in the table below:

	June 30, 2018	2017
Three Months Ended		
Amounts attributable to non-redeemable noncontrolling interests	$(8,116)	$(9,346)
Dividends attributable to redeemable noncontrolling interests	(4,585)	(4,586)
Net (income) loss attributable to noncontrolling interests	$(12,701)	$(13,932)
Six Months Ended		
Amounts attributable to non-redeemable noncontrolling interests	$(19,492)	$(25,670)
Dividends attributable to redeemable noncontrolling interests	(9,170)	(9,170)
Net (income) loss attributable to noncontrolling interests	$(28,662)	$(34,840)

Bellemeade Re

The Company has entered into various aggregate excess of loss reinsurance agreements with Bellemeade Re I Ltd. (July 2015), with Bellemeade Re II Ltd. (May 2016), with Bellemeade 2017-1 Ltd. (October 2017) and with Bellemeade 2018-1 Ltd. (April 2018) (the "Bellemeade Agreements"), special purpose reinsurance companies domiciled in Bermuda. At the time the Bellemeade Agreements were entered into, the applicability of the accounting guidance that addresses VIEs was evaluated. As a result of the evaluation of the Bellemeade Agreements, the Company concluded that Bellemeade Re I Ltd., Bellemeade Re II Ltd., Bellemeade 2017-1 Ltd. and Bellemeade 2018-1 Ltd. are VIEs. However, given that the ceding insurers do not have the unilateral power to direct those activities that are significant to the economic performance of Bellemeade Re I Ltd., Bellemeade Re II Ltd., Bellemeade 2017-1 Ltd. and Bellemeade 2018-1 Ltd., the Company does not consolidate such companies in its consolidated financial statements.

The following table presents total assets of the Bellemeade entities, as well as the Company's maximum exposure to loss associated with these VIEs as of June 30, 2018 and December 31, 2017:

		Maximum Exposure to Loss		
	Total VIE Assets	On-Balance Sheet	Off-Balance Sheet	Total
June 30, 2018				
Bellemeade Re I Ltd.	$69,079	$263	$ 469	$732
Bellemeade Re II Ltd.	55,388	14	110	124
Bellemeade 2017-1 Ltd.	329,030	815	1,759	2,574
Bellemeade 2018-1 Ltd.	374,460	1,242	2,050	3,292
Total	$827,957	$2,334	$ 4,388	$6,722
December 31, 2017				
Bellemeade Re I Ltd.	$92,390	$471	$ 832	$1,303
Bellemeade Re II Ltd.	135,201	20	527	547
Bellemeade 2017-1 Ltd.	347,139	391	1,867	2,258
Total	$574,730	$882	$ 3,226	$4,108

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12. Other Comprehensive Income (Loss)

The following tables present details about amounts reclassified from accumulated other comprehensive income and the tax effects allocated to each component of other comprehensive income (loss):

Details About AOCI Components	Consolidated Statement of Income Line Item That Includes Reclassification	Amounts Reclassified from AOCI Three Months Ended June 30, 2018	2017	Six Months Ended June 30, 2018	2017
Unrealized appreciation on available-for-sale investments					
	Net realized gains (losses)	$(38,935)	$24,111	$(106,521)	$31,924
	Other-than-temporary impairment losses	(470)	(1,730)	(632)	(3,537)
	Total before tax	(39,405)	22,381	(107,153)	28,387
	Income tax (expense) benefit	2,762	(5,157)	8,049	(6,119)
	Net of tax	$(36,643)	$17,224	$(99,104)	$22,268

	Before Tax Amount	Tax Expense (Benefit)	Net of Tax Amount
Three Months Ended June 30, 2018			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during period	$(88,034)	$(2,763)	$(85,271)
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	—	—	—
Less reclassification of net realized gains (losses) included in net income	(39,405)	(2,762)	(36,643)
Foreign currency translation adjustments	(12,701)	(106)	(12,595)
Other comprehensive income (loss)	$(61,330)	$(107)	$(61,223)
Three Months Ended June 30, 2017			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during period	$108,011	$15,042	$92,969
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	—	—	—
Less reclassification of net realized gains (losses) included in net income	22,381	5,157	17,224
Foreign currency translation adjustments	18,509	212	18,297
Other comprehensive income (loss)	$104,139	$10,097	$94,042
Six Months Ended June 30, 2018			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during period	$(277,977)	$(26,029)	$(251,948)
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	—	—	—
Less reclassification of net realized gains (losses) included in net income	(107,153)	(8,049)	(99,104)
Foreign currency translation adjustments	(11,269)	44	(11,313)
Other comprehensive income (loss)	$(182,093)	$(17,936)	$(164,157)
Six Months Ended June 30, 2017			
Unrealized appreciation (decline) in value of investments:			

Unrealized holding gains (losses) arising during period	$219,483	$25,722	$193,761
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	—	—	—
Less reclassification of net realized gains (losses) included in net income	28,387	6,119	22,268
Foreign currency translation adjustments	21,674	253	21,421
Other comprehensive income (loss)	$212,770	$19,856	$192,914

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13. Guarantor Financial Information

The following tables present condensed financial information for Arch Capital, Arch-U.S., a 100% owned subsidiary of Arch Capital, and Arch Capital's other subsidiaries.

Condensed Consolidating Balance Sheet	June 30, 2018 Arch Capital (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other Arch Capital Subsidiaries	Consolidating Adjustments and Eliminations	Arch Capital Consolidated
Assets					
Total investments	$134	$198,122	$21,353,862	$(14,700)	$21,537,418
Cash	7,033	27,513	492,082	—	526,628
Investments in subsidiaries	9,455,746	4,033,568	—	(13,489,314)	—
Due from subsidiaries and affiliates	—	2	1,849,468	(1,849,470)	—
Premiums receivable	—	—	1,897,517	(546,207)	1,351,310
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses	—	—	8,441,528	(5,714,225)	2,727,303
Contractholder receivables	—	—	2,044,322	—	2,044,322
Ceded unearned premiums	—	—	1,821,539	(806,876)	1,014,663
Deferred acquisition costs	—	—	633,454	(63,637)	569,817
Goodwill and intangible assets	—	—	593,008	—	593,008
Other assets	12,978	56,042	1,555,017	(135,386)	1,488,651
Total assets	$9,475,891	$4,315,247	$40,681,797	$(22,619,815)	$31,853,120
Liabilities					
Reserve for losses and loss adjustment expenses	$—	$—	$16,855,050	$(5,430,713)	$11,424,337
Unearned premiums	—	—	4,640,416	(806,876)	3,833,540
Reinsurance balances payable	—	—	957,289	(546,207)	411,082
Contractholder payables	—	—	2,044,322	—	2,044,322
Collateral held for insured obligations	—	—	257,396		257,396
Senior notes	297,101	494,672	941,438	—	1,733,211
Revolving credit agreement borrowings	—	—	572,289	—	572,289
Due to subsidiaries and affiliates	1,824	536,747	1,310,899	(1,849,470)	—
Other liabilities	13,211	29,304	1,785,950	(482,535)	1,345,930
Total liabilities	312,136	1,060,723	29,365,049	(9,115,801)	21,622,107
Redeemable noncontrolling interests	—	—	220,805	(14,700)	206,105
Shareholders' Equity					
Total shareholders' equity available to Arch	9,163,755	3,254,524	10,234,790	(13,489,314)	9,163,755
Non-redeemable noncontrolling interests	—	—	861,153	—	861,153
Total shareholders' equity	9,163,755	3,254,524	11,095,943	(13,489,314)	10,024,908
Total liabilities, noncontrolling interests and shareholders' equity	$9,475,891	$4,315,247	$40,681,797	$(22,619,815)	$31,853,120

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Condensed Consolidating Balance Sheet	December 31, 2017 Arch Capital (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other Arch Capital Subsidiaries	Consolidating Adjustments and Eliminations	Arch Capital Consolidated
Assets					
Total investments	$96,540	$46,281	$21,711,891	$(14,700)	$21,840,012
Cash	9,997	30,380	565,822	—	606,199
Investments in subsidiaries	9,396,621	4,097,765	—	(13,494,386)	—
Due from subsidiaries and affiliates	394	—	1,828,864	(1,829,258)	—
Premiums receivable	—	—	2,967,701	(1,832,452)	1,135,249
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses	—	—	8,442,192	(5,902,049)	2,540,143
Contractholder receivables	—	—	1,978,414	—	1,978,414
Ceded unearned premiums	—	—	2,165,789	(1,239,178)	926,611
Deferred acquisition costs	—	—	693,053	(157,229)	535,824
Goodwill and intangible assets	—	—	652,611	—	652,611
Other assets	13,176	49,585	1,860,505	(86,671)	1,836,595
Total assets	$9,516,728	$4,224,011	$42,866,842	$(24,555,923)	$32,051,658
Liabilities					
Reserve for losses and loss adjustment expenses	$—	$—	$17,236,401	$(5,852,609)	$11,383,792
Unearned premiums	—	—	4,861,491	(1,239,177)	3,622,314
Reinsurance balances payable	—	—	2,155,947	(1,832,451)	323,496
Contractholder payables	—	—	1,978,414	—	1,978,414
Collateral held for insured obligations	—	—	240,183	—	240,183
Senior notes	297,053	494,621	941,210	—	1,732,884
Revolving credit agreement borrowings	—	—	816,132	—	816,132
Due to subsidiaries and affiliates	235	536,919	1,292,104	(1,829,258)	—
Other liabilities	22,838	29,317	1,949,696	(293,343)	1,708,508
Total liabilities	320,126	1,060,857	31,471,578	(11,046,838)	21,805,723
Redeemable noncontrolling interests	—	—	220,622	(14,700)	205,922
Shareholders' Equity					
Total shareholders' equity available to Arch	9,196,602	3,163,154	10,331,231	(13,494,385)	9,196,602
Non-redeemable noncontrolling interests	—	—	843,411	—	843,411
Total shareholders' equity	9,196,602	3,163,154	11,174,642	(13,494,385)	10,040,013
Total liabilities, noncontrolling interests and shareholders' equity	$9,516,728	$4,224,011	$42,866,842	$(24,555,923)	$32,051,658

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Three Months Ended June 30, 2018					
Condensed Consolidating Statement of Income and Comprehensive Income	Arch Capital (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other Arch Capital Subsidiaries	Consolidating Adjustments and Eliminations	Arch Capital Consolidated
Revenues					
Net premiums earned	$—	$ —	$ 1,336,763	$ —	$ 1,336,763
Net investment income	15	560	157,532	(22,439)	135,668
Net realized gains (losses)	—	—	(76,611)	—	(76,611)
Net impairment losses recognized in earnings	—	—	(470)	—	(470)
Other underwriting income	—	—	3,874	—	3,874
Equity in net income (loss) of investment funds accounted for using the equity method	—	—	8,472	—	8,472
Other income (loss)	2,339	—	774	—	3,113
Total revenues	2,354	560	1,430,334	(22,439)	1,410,809
Expenses					
Losses and loss adjustment expenses	—	—	726,153	—	726,153
Acquisition expenses	—	—	202,838	—	202,838
Other operating expenses	—	—	176,181	—	176,181
Corporate expenses	16,642	470	5,400	—	22,512
Amortization of intangible assets	—	—	26,472	—	26,472
Interest expense	5,537	12,013	34,911	(22,117)	30,344

Net foreign exchange (gains) losses	—	—	(43,357)	(10,349)	(53,706)
Total expenses	22,179	12,483	1,128,598	(32,466)	1,130,794
Income (loss) before income taxes	(19,825)	(11,923)	301,736	10,027	280,015
Income tax (expense) benefit	—	2,477	(26,145)	—	(23,668)
Income (loss) before equity in net income of subsidiaries	(19,825)	(9,446)	275,591	10,027	256,347
Equity in net income of subsidiaries	263,471	86,727	—	(350,198)	—
Net income	243,646	77,281	275,591	(340,171)	256,347
Net (income) loss attributable to noncontrolling interests	—	—	(13,023)	322	(12,701)
Net income available to Arch	243,646	77,281	262,568	(339,849)	243,646
Preferred dividends	(10,403)	—	—	—	(10,403)
Net income available to Arch common shareholders	$233,243	$ 77,281	$262,568	$ (339,849)	$ 233,243
Comprehensive income available to Arch	$183,500	$ 70,066	$212,802	$ (282,868)	$ 183,500

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Condensed Consolidating Statement of Income and Comprehensive Income	Three Months Ended June 30, 2017 Arch Capital (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other Arch Capital Subsidiaries	Consolidating Adjustments and Eliminations	Arch Capital Consolidated
Revenues					
Net premiums earned	$—	$—	$1,240,874	$—	$1,240,874
Net investment income	1	184	133,627	(22,688)	111,124
Net realized gains (losses)	—	—	21,735	—	21,735
Net impairment losses recognized in earnings	—	—	(1,730)	—	(1,730)
Other underwriting income	—	—	4,822	—	4,822
Equity in net income (loss) of investment funds accounted for using the equity method	—	—	32,706	—	32,706
Other income (loss)	(437)	—	(1,557)	—	(1,994)
Total revenues	(436)	184	1,430,477	(22,688)	1,407,537
Expenses					
Losses and loss adjustment expenses	—	—	689,860	—	689,860
Acquisition expenses	—	—	190,436	—	190,436
Other operating expenses	—	—	169,981	—	169,981
Corporate expenses	21,816	1,309	1,751	—	24,876
Amortization of intangible assets	—	—	30,824	—	30,824
Interest expense	6,075	11,989	33,050	(22,365)	28,749

Net foreign exchange (gains) losses	—	—	29,843	9,700	39,543
Total expenses	27,891	13,298	1,145,745	(12,665)	1,174,269
Income (loss) before income taxes	(28,327)	(13,114)	284,732	(10,023)	233,268
Income tax (expense) benefit	—	4,069	(38,238)	—	(34,169)
Income (loss) before equity in net income of subsidiaries	(28,327)	(9,045)	246,494	(10,023)	199,099
Equity in net income of subsidiaries	213,494	86,156	—	(299,650)	—
Net income	185,167	77,111	246,494	(309,673)	199,099
Net (income) loss attributable to noncontrolling interests	—	—	(14,254)	322	(13,932)
Net income available to Arch	185,167	77,111	232,240	(309,351)	185,167
Preferred dividends	(11,349)	—	—	—	(11,349)
Net income available to Arch common shareholders	$173,818	$77,111	$232,240	$(309,351)	$173,818
Comprehensive income available to Arch	$279,285	$105,302	$475,747	$(581,049)	$279,285

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	Six Months Ended June 30, 2018				
Condensed Consolidating Statement of Income and Comprehensive Income	Arch Capital (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other Arch Capital Subsidiaries	Consolidating Adjustments and Eliminations	Arch Capital Consolidated
Revenues					
Net premiums earned	$—	$—	$2,571,662	$—	$2,571,662
Net investment income	35	818	306,299	(44,760)	262,392
Net realized gains (losses)	29	(7)	(187,631)	—	(187,609)
Net impairment losses recognized in earnings	—	—	(632)	—	(632)
Other underwriting income	—	—	9,223	—	9,223
Equity in net income (loss) of investment funds accounted for using the equity method	—	—	36,541	—	36,541
Other income (loss)	2,261	—	926	—	3,187
Total revenues	2,325	811	2,736,388	(44,760)	2,694,764
Expenses					
Losses and loss adjustment expenses	—	—	1,363,013	—	1,363,013
Acquisition expenses	—	—	394,214	—	394,214
Other operating expenses	—	—	351,196	—	351,196
Corporate expenses	32,811	759	4,254	—	37,824
Amortization of intangible assets	—	—	53,208	—	53,208
Interest expense	11,073	23,939	70,083	(44,115)	60,980

Net foreign exchange (gains) losses	29	—	(26,921)	(7,093)	(33,985)
Total expenses	43,913	24,698	2,209,047	(51,208)	2,226,450
Income (loss) before income taxes	(41,588)	(23,887)	527,341	6,448	468,314
Income tax (expense) benefit	—	5,428	(51,011)	—	(45,583)
Income (loss) before equity in net income of subsidiaries	(41,588)	(18,459)	476,330	6,448	422,731
Equity in net income of subsidiaries	435,657	173,147	—	(608,804)	—
Net income	394,069	154,688	476,330	(602,356)	422,731
Net (income) loss attributable to noncontrolling interests	—	—	(29,307)	645	(28,662)
Net income available to Arch	394,069	154,688	447,023	(601,711)	394,069
Preferred dividends	(20,840)	—	—	—	(20,840)
Loss on redemption of preferred shares	(2,710)	—	—	—	(2,710)
Net income available to Arch common shareholders	$370,519	$154,688	$447,023	$(601,711)	$370,519
Comprehensive income available to Arch	$231,662	$76,603	$291,883	$(368,486)	$231,662

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Condensed Consolidating Statement of Income and Comprehensive Income	Arch Capital (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other Arch Capital Subsidiaries	Consolidating Adjustments and Eliminations	Arch Capital Consolidated
Revenues					
Net premiums earned	$—	$—	$2,357,891	$—	$2,357,891
Net investment income	6	1,000	271,608	(43,616)	228,998
Net realized gains (losses)	—	—	55,888	—	55,888
Net impairment losses recognized in earnings	—	—	(3,537)	—	(3,537)
Other underwriting income	—	—	9,455	—	9,455
Equity in net income (loss) of investment funds accounted for using the equity method	—	—	80,794	—	80,794
Other income (loss)	(266)	—	(2,510)	—	(2,776)
Total revenues	(260)	1,000	2,769,589	(43,616)	2,726,713
Expenses					
Losses and loss adjustment expenses	—	—	1,242,430	—	1,242,430
Acquisition expenses	—	—	372,725	—	372,725
Other operating expenses	—	—	344,700	—	344,700
Corporate expenses	39,063	3,317	10,288	—	52,668
Amortization of intangible assets	—	—	62,118	—	62,118
Interest expense	12,090	23,919	64,386	(42,970)	57,425

Net foreign exchange (gains) losses	—	—	45,191	13,756	58,947
Total expenses	51,153	27,236	2,141,838	(29,214)	2,191,013
Income (loss) before income taxes	(51,413)	(26,236)	627,751	(14,402)	535,700
Income tax (expense) benefit	—	8,942	(71,508)	—	(62,566)
Income (loss) before equity in net income of subsidiaries	(51,413)	(17,294)	556,243	(14,402)	473,134
Equity in net income of subsidiaries	489,707	163,529	—	(653,236)	—
Net income	438,294	146,235	556,243	(667,638)	473,134
Net (income) loss attributable to noncontrolling interests	—	—	(35,485)	645	(34,840)
Net income available to Arch	438,294	146,235	520,758	(666,993)	438,294
Preferred dividends	(22,567)	—	—	—	(22,567)
Net income available to Arch common shareholders	$415,727	$146,235	$520,758	$(666,993)	$415,727
Comprehensive income available to Arch	$631,276	$193,083	$699,920	$(893,003)	$631,276

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ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

	Six Months Ended June 30, 2018				
Condensed Consolidating Statement of Cash Flows	Arch Capital (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other Arch Capital Subsidiaries	Consolidating Adjustments and Eliminations	Arch Capital Consolidated
Operating Activities					
Net Cash Provided By (Used For) Operating Activities	$ 201,487	$ 149,576	$ 1,010,703	$ (864,880)	$ 496,886
Investing Activities					
Purchases of fixed maturity investments	—	(125,440)	(17,347,846)	605,716	(16,867,570)
Purchases of equity securities	—	—	(679,663)	—	(679,663)
Purchases of other investments	—	—	(1,017,147)	—	(1,017,147)
Proceeds from the sales of fixed maturity investments	—	33,793	16,662,466	(605,716)	16,090,543
Proceeds from the sales of equity securities	—	—	622,068	—	622,068
Proceeds from the sales, redemptions and maturities of other investments	—	—	773,298	—	773,298
Proceeds from	—	—	511,448	—	511,448

redemptions and maturities of fixed maturity investments					
Net settlements of derivative instruments	—	—	4,498	—	4,498
Net (purchases) sales of short-term investments	96,446	(59,798)	415,253	—	451,901
Change in cash collateral related to securities lending	—	—	176,304	—	176,304
Contributions to subsidiaries	—	(1,000)	(22,595)	23,595	—
Purchases of fixed assets	(71)	—	(13,171)	—	(13,242)
Other	(4)	—	49,965	—	49,961
Net Cash Provided By (Used For) Investing Activities	96,371	(152,445)	134,878	23,595	102,399
Financing Activities					
Redemption of preferred shares	(92,555)	—	—	—	(92,555)
Purchases of common shares under share repurchase program	(173,575)	—	—	—	(173,575)
Proceeds from common shares	(13,851)	—	23,595	(23,595)	(13,851)

issued, net					
Proceeds from borrowings	—	—	130,579	—	130,579
Repayments of borrowings	—	—	(373,000)	—	(373,000)
Change in cash collateral related to securities lending	—	—	(176,304)	—	(176,304)
Dividends paid to redeemable noncontrolling interests	—	—	(9,632)	638	(8,994)
Dividends paid to parent (1)	—	—	(864,242)	864,242	—
Other	—	—	(4,489)	—	(4,489)
Preferred dividends paid	(20,840)	—	—	—	(20,840)
Net Cash Provided By (Used For) Financing Activities	(300,821)	—	(1,273,493)	841,285	(733,029)
Effects of exchange rates changes on foreign currency cash and restricted cash	—	—	(10,431)	—	(10,431)
Increase (decrease) in cash and restricted cash	(2,963)	(2,869)	(138,343)	—	(144,175)
Cash and restricted cash, beginning of year	10,048	30,380	686,856	—	727,284
	$7,085	$ 27,511	$548,513	$ —	$ 583,109

Cash and restricted cash, end of period

(1) Dividends received by parent are included in net cash provided by (used for) operating activities.

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ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

	Six Months Ended June 30, 2017				
Condensed Consolidating Statement of Cash Flows	Arch Capital (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other Arch Capital Subsidiaries	Consolidating Adjustments and Eliminations	Arch Capital Consolidated
Operating Activities					
Net Cash Provided By (Used For) Operating Activities	$7,483	$ 27,853	$ 956,437	$ (458,238)	$ 533,535
Investing Activities					
Purchases of fixed maturity investments	—	—	(19,899,326)	—	(19,899,326)
Purchases of equity securities	—	—	(400,155)	—	(400,155)
Purchases of other investments	—	—	(883,704)	—	(883,704)
Proceeds from the sales of fixed maturity investments	—	—	19,611,680	—	19,611,680
Proceeds from the sales of equity securities	—	—	473,064	—	473,064
Proceeds from the sales, redemptions and maturities of other investments	—	—	614,494	—	614,494
	—	—	447,941	—	447,941

Proceeds from redemptions and maturities of fixed maturity investments					
Net settlements of derivative instruments	—	—	(5,984)	—	(5,984)
Net (purchases) sales of short-term investments	2,354	(27,896)	(419,661)	—	(445,203)
Change in cash collateral related to securities lending	—	—	175,693	—	175,693
Contributions to subsidiaries	20,641	(72,900)	(342,950)	395,209	—
Issuance of intercompany loans	—	—	(47,000)	47,000	—
Repayment of intercompany loans	—	47,000	—	(47,000)	—
Purchases of fixed assets	(18)	(10)	(11,075)	—	(11,103)
Other	—	—	54,129	(20,641)	33,488
Net Cash Provided By (Used For) Investing Activities	22,977	(53,806)	(632,854)	374,568	(289,115)
Financing Activities					
Proceeds from common shares issued, net	(6,838)	—	395,209	(395,209)	(6,838)

Repayments of borrowings	—	—	(72,000)	—	(72,000)
Change in cash collateral related to securities lending	—	—	(175,693)	—	(175,693)
Dividends paid to redeemable noncontrolling interests	—	—	(9,632)	638	(8,994)
Dividends paid to parent (1)	—	—	(457,600)	457,600	—
Other	—	—	(62,339)	20,641	(41,698)
Preferred dividends paid	(22,567)	—	—	—	(22,567)
Net Cash Provided By (Used For) Financing Activities	(29,405)	—	(382,055)	83,670	(327,790)
Effects of exchange rates changes on foreign currency cash and restricted cash	—	—	9,616	—	9,616
Increase (decrease) in cash and restricted cash	1,055	(25,953)	(48,856)	—	(73,754)
Cash and restricted cash, beginning of year	1,738	71,955	895,876	—	969,569
Cash and restricted cash, end of period	$ 2,793	$ 46,002	$ 847,020	$ —	$ 895,815

(1) Dividends received by parent are included in net cash provided by (used for) operating activities.

14. Income Taxes

The Company's income tax provision on income before income taxes resulted in an expense of 9.7% for the six months ended June 30, 2018, compared to an expense of 11.7% for the 2017 period. The Company's effective tax rate, which is based upon the expected annual effective tax rate, may fluctuate from period to period based on the relative mix of income or loss reported by jurisdiction and the varying tax rates in each jurisdiction. For interim reporting purposes, the Company has calculated its effective tax rate for the full year of 2018 by treating any excess tax benefits that arise from the accounting for stock based compensation as a discrete item. As such, this amount is not included when projecting the Company's full year effective tax rate but rather is accounted for at the U.S. Federal statutory rate of 21% after applying the projected full year effective tax rate to actual results before the discrete item. The impact of the discrete item resulted in a benefit of 0.6% for the six months ended June 30, 2018.

On December 22, 2017, Staff Accounting Bulletin No. 118 ("SAB 118") was issued to address the application of GAAP in situations when a registrant does not have the necessary information available, prepared or analyzed in reasonable detail to complete the accounting for certain income tax effects of the Tax Cuts and Jobs Act of 2017 ("Tax Cuts Act"). Pursuant to the guidance within SAB 118, the Company's remeasurement of its deferred taxes at December 31, 2017 included certain provisional effects associated with enactment of the Tax Cuts Act for which measurement could be reasonably estimated. Provisional amounts may be adjusted in 2018 during the measurement period in accordance with SAB 118 when additional information is obtained. Additional information that may affect the provisional amounts would include, completion of the Company's U.S. subsidiaries' 2017 tax return filings, and potential future guidance from the IRS with respect to the transitional adjustment pertaining to loss reserve discounting as well as the utilization of alternative minimum tax credits. The Company's income tax provision six months ended June 30, 2018 does not include any adjustments to the provisional effects recorded at December 31, 2017.

The Company had a net deferred tax asset of $9.7 million at June 30, 2018, compared to $39.6 million at December 31, 2017. In addition, the Company recovered $46.5 million and paid $3.9 million of income taxes for the six months ended June 30, 2018 and 2017, respectively.

15. Legal Proceedings

The Company, in common with the insurance industry in general, is subject to litigation and arbitration in the normal course of its business. As of June 30, 2018, the Company was not a party to any litigation or arbitration which is expected by management to have a material adverse effect on the Company's results of operations and financial condition and liquidity.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following is a discussion and analysis of our financial condition and results of operations. This should be read in conjunction with our consolidated financial statements included in Item 1 of this report and also our Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report on Form 10-K for the year ended December 31, 2017 ("2017 Form 10-K"). In addition, readers should review "Risk Factors" set forth in Item 1A of Part I of our 2017 Form 10-K. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted.

Arch Capital Group Ltd. ("Arch Capital" and, together with its subsidiaries, "we" or "us") is a Bermuda public limited liability company with approximately $11.02 billion in capital at June 30, 2018 and, through operations in Bermuda, the United States, Europe, Canada and Australia, writes insurance, reinsurance and mortgage insurance on a worldwide basis.

CURRENT OUTLOOK

Our objective is to achieve an average operating return on average equity of 15% or greater over the insurance cycle, which we believe to be an attractive return to our common shareholders given the risks we assume. We continue to look for opportunities to find acceptable books of business to underwrite without sacrificing underwriting discipline and continue to write a portion of our overall book in catastrophe-exposed business which has the potential to increase the volatility of our operating results.

The broad property casualty insurance market environment continues to be competitive, with market conditions improving modestly in the 2018 second quarter. In most of our insurance lines of business, rate increases appear to be in excess of loss cost trends. However, with the continued low interest rate environment, additional price increases are needed in many lines in order for us to achieve our return requirements. Our underwriting teams continue to execute a disciplined strategy by emphasizing small and medium-sized accounts over large accounts, shrinking premiums in more commoditized lines such as general liability and directors and officers, and by utilizing reinsurance purchases to reduce volatility on large account, high capacity business. Writings in property catastrophe exposed business were down in the 2018 second quarter as most rate levels were below our risk-adjusted return requirements.

Our mortgage segment continues to experience generally favorable market conditions, albeit with pressure on pricing, and our results reflect our success in making superior credit underwriting risk decisions and in expanding our distribution and producer relationships.

Arch remains committed to providing solutions across many offerings as the marketplace evolves, including new mortgage credit risk transfer programs initiated by government sponsored enterprises, or "GSEs," in 2018. Such programs are in their infancy and did not contribute in any significant fashion to our results in the 2018 second quarter. In addition, in April 2018, we announced that we entered into a multi-year agreement with Munich Re to provide mortgage credit assessment and underwriting advisory services related to Munich Re's involvement in credit risk transfer programs offered by Federal National Mortgage Association ("Fannie Mae") and Federal Home Loan Mortgage Corporation ("Freddie Mac"), each a GSE.

FINANCIAL MEASURES

Management uses the following three key financial indicators in evaluating our performance and measuring the overall growth in value generated for Arch Capital's common shareholders:

Book Value per Share

Book value per share represents total common shareholders' equity available to Arch divided by the number of common shares outstanding. Management uses growth in book value per share as a key measure of the value generated for our common shareholders each period and believes that book value per share is the key driver of Arch

Capital's share price over time. Book value per share is impacted by, among other factors, our underwriting results, investment returns and share repurchase activity, which has an accretive or dilutive impact on book value per share depending on the purchase price.

Book value per share was $20.68 at June 30, 2018, compared to $20.41 at March 31, 2018 and $19.87 at June 30, 2017. The 1.3% increase for the 2018 second quarter reflected strong underwriting results, partially offset by the impact of an increase in interest rates on our fixed income securities in the period, while the 4.1% increase over the trailing twelve months reflected strong investment and underwriting results.

Operating Return on Average Common Equity

Operating return on average common equity ("Operating ROAE") represents annualized after-tax operating income available to Arch common shareholders divided by the average

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of beginning and ending common shareholders' equity available to Arch during the period. After-tax operating income available to Arch common shareholders, a non-GAAP financial measure as defined in Regulation G, represents net income available to Arch common shareholders, excluding net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses, UGC transaction costs and other, loss on redemption of preferred shares and income taxes. Management uses Operating ROAE as a key measure of the return generated to common shareholders. See "Comment on Non-GAAP Financial Measures."

Our Operating ROAE was 11.6% for the 2018 second quarter, compared to 8.5% for the 2017 second quarter, and 11.4% for the six months ended June 30, 2018, compared to 9.4% for the 2017 period. The 2018 returns reflected strong mortgage insurance underwriting performance and a low level of catastrophic activity.

Total Return on Investments

Total return on investments includes investment income, equity in net income or loss of investment funds accounted for using the equity method, net realized gains and losses and the change in unrealized gains and losses generated by Arch's investment portfolio. Total return is calculated on a pre-tax basis and before investment expenses, excludes amounts reflected in the 'other' segment, and reflects the effect of financial market conditions along with foreign currency fluctuations. In addition, total return incorporates the timing of investment returns during the periods. The following table summarizes our total return compared to the benchmark return against which we measured our portfolio during the periods. See "Comment on Non-GAAP Financial Measures."

	Arch Portfolio	Benchmark Return
2018 Second Quarter	(0.19)%	(0.21)%
2017 Second Quarter	1.63 %	1.53 %
Six Months Ended June 30, 2018	(0.51)%	(0.89)%
Six Months Ended June 30, 2017	3.37 %	3.05 %

Excluding the effects of foreign exchange, total return was 0.33% for the 2018 second quarter and (0.08)% for the six months ended June 30, 2018, reflecting an increase in interest rates in the 2018 periods. Total return for the 2018 periods reflected the strengthening of the U.S. Dollar against the Euro and British Pound Sterling on non-U.S. Dollar denominated investments.

The benchmark return index is a customized combination of indices intended to approximate a target portfolio by asset mix and average credit quality while also matching the approximate estimated duration and currency mix of our insurance and

reinsurance liabilities. Although the estimated duration and average credit quality of this index will move as the duration and rating of its constituent securities change, generally we do not adjust the composition of the benchmark return index except to incorporate changes to the mix of liability currencies and durations noted above. The benchmark return index should not be interpreted as expressing a preference for or aversion to any particular sector or sector weight. The index is intended solely to provide, unlike many master indices that change based on the size of their constituent indices, a relatively stable basket of investable indices. At June 30, 2018, the benchmark return index had an average credit quality of "Aa2" by Moody's Investors Service ("Moody's"), and an estimated duration of 3.25 years. The benchmark return index included weightings to the following indices, which are primarily from The Bank of America Merrill Lynch ("BoAML"):

	%
BoAML 1-10 Year U.S. Corporate & All Yankees, A - AAA Rated Index	20.00 %
BoAML 1-5 Year U.S. Treasury Index	15.00
BoAML 1-10 Year U.S. Municipal Securities Index	14.50
BoAML 3-5 Year Fixed Rate Asset Backed Securities Index	7.00
Barclays CMBS Inv. Grade, AAA Rated Index	5.00
MSCI All Country World Gross Total Return Index	5.00

BoAML German Government 1-10 Year Index	5.00
BoAML U.S. Mortgage Backed Securities Index	4.00
Hedge Fund Research HFRX Fixed Income Credit Index	3.50
Hedge Fund Research HFRX Equal Weighted Strategies	3.50
BoAML 5-10 Year U.S. Treasury Index	3.00
BoAML 1-5 Year U.K. Gilt Index	3.00
BoAML U.S. High Yield Constrained Index	2.50
BoAML 1-5 Year Australian Governments Index	2.50
S&P Leveraged Loan Index	2.50
BoAML 0-3 Month U.S. Treasury Bill Index	2.00
BoAML 1-5 Year Canada Government Index	1.50
BoAML 20+ Year Canada Government Index	0.50
Total	100.00%

COMMENT ON NON-GAAP FINANCIAL MEASURES

Throughout this filing, we present our operations in the way we believe will be the most meaningful and useful to investors, analysts, rating agencies and others who use our financial information in evaluating the performance of our company. This presentation includes the use of after-tax operating income available to Arch common shareholders, which is defined as net income available to Arch common shareholders, excluding net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses, UGC transaction costs and other, loss on redemption of preferred shares and income taxes, and the use of annualized operating return on average common equity. The

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presentation of after-tax operating income available to Arch common shareholders and annualized operating return on average common equity are non-GAAP financial measures as defined in Regulation G. The reconciliation of such measures to net income available to Arch common shareholders and annualized return on average common equity (the most directly comparable GAAP financial measures) in accordance with Regulation G is included under "Results of Operations" below.

We believe that net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses, UGC transaction costs and other and loss on redemption of preferred shares in any particular period are not indicative of the performance of, or trends in, our business. Although net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method and net foreign exchange gains or losses are an integral part of our operations, the decision to realize investment gains or losses, the recognition of the change in the carrying value of investments accounted for using the fair value option in net realized gains or losses, the recognition of net impairment losses, the recognition of equity in net income or loss of investment funds accounted for using the equity method and the recognition of foreign exchange gains or losses are independent of the insurance underwriting process and result, in large part, from general economic and financial market conditions. Furthermore, certain users of our financial information believe that, for many companies, the timing of the realization of investment gains or losses is largely opportunistic. In addition, net impairment losses recognized in earnings on our investments represent other-than-temporary declines in expected recovery values on securities without actual realization. The use of the equity method on certain of our investments in certain funds that invest in fixed maturity securities is driven by the ownership structure of such funds (either limited partnerships or limited liability companies). In applying the equity method, these investments are initially recorded at cost and are subsequently adjusted based on our proportionate share of the net income or loss of the funds (which include changes in the market value of the underlying securities in the funds). This method of accounting is different from the way we account for our other fixed maturity securities and the timing of the recognition of equity in net income or loss of investment funds accounted for using the equity method may differ from gains or losses in the future upon sale or maturity of such investments. UGC transaction costs and other include advisory, financing, legal, severance, incentive compensation and other transaction costs related to the acquisition of United Guaranty Corporation, a North Carolina corporation ("UGC") which closed at the end of 2016. We believe that UGC transaction costs and other, due to their non-recurring nature, are not indicative of the performance of, or trends in, our business performance. The loss on redemption of preferred shares related to the redemption of our Series C preferred shares

in January 2018 and had no impact on shareholders' equity or cash flows. Due to these reasons, we exclude net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses, UGC transaction costs and other and loss on redemption of preferred shares from the calculation of after-tax operating income available to Arch common shareholders.

We believe that showing net income available to Arch common shareholders exclusive of the items referred to above reflects the underlying fundamentals of our business since we evaluate the performance of and manage our business to produce an underwriting profit. In addition to presenting net income available to Arch common shareholders, we believe that this presentation enables investors and other users of our financial information to analyze our performance in a manner similar to how management analyzes performance. We also believe that this measure follows industry practice and, therefore, allows the users of financial information to compare our performance with our industry peer group. We believe that the equity analysts and certain rating agencies which follow us and the insurance industry as a whole generally exclude these items from their analyses for the same reasons.

Our segment information includes the presentation of consolidated underwriting income or loss and a subtotal of underwriting income or loss before the contribution from the 'other' segment. Such measures represent the pre-tax profitability of our underwriting operations and include net premiums earned plus other underwriting income, less losses and loss adjustment expenses, acquisition expenses and other operating expenses. Other operating expenses include those operating expenses that are incremental and/or directly attributable to our individual underwriting operations. Underwriting income or loss does not incorporate items included in our corporate (non-underwriting) segment. While these measures are presented in Note 5, "Segment Information," of the notes accompanying our consolidated financial statements, they are considered non-GAAP financial measures when presented elsewhere on a consolidated basis. The reconciliations of underwriting income or loss to income before income taxes (the most directly comparable GAAP financial measure) on a consolidated basis and a subtotal before the contribution from the 'other' segment, in accordance with Regulation G, is shown in Note 5, "Segment Information" to our consolidated financial statements.

We measure segment performance for our three underwriting segments based on underwriting income or loss. We do not manage our assets by underwriting segment, with the exception of goodwill and intangibles and, accordingly, investment income and other non-underwriting related items are not allocated to each underwriting segment. For the 'other' segment, performance is measured based on net income or loss.

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Along with consolidated underwriting income, we provide a subtotal of underwriting income or loss before the contribution from the 'other' segment. Pursuant to generally accepted accounting principles, Watford Re is considered a variable interest entity and we concluded that we are the primary beneficiary of Watford Re. As such, we consolidate the results of Watford Re in our consolidated financial statements, although we only own approximately 11% of Watford Re's common equity. Watford Re has its own management and board of directors that is responsible for its overall profitability. In addition, we do not guarantee or provide credit support for Watford Re. Since Watford Re is an independent company, the assets of Watford Re can be used only to settle obligations of Watford Re and Watford Re is solely responsible for its own liabilities and commitments. Our financial exposure to Watford Re is limited to our investment in Watford Re's common and preferred shares and counterparty credit risk (mitigated by collateral) arising from the reinsurance transactions. We believe that presenting certain information excluding the 'other' segment enables investors and other users of our financial information to analyze our performance in a manner similar to how our management analyzes performance.

Our presentation of segment information includes the use of a current year loss ratio which excludes favorable or adverse development in prior year loss reserves. This ratio is a non-GAAP financial measure as defined in Regulation G. The reconciliation of such measure to the loss ratio (the most directly comparable GAAP financial measure) in accordance with Regulation G is shown on the individual segment pages. Management utilizes the current year loss ratio in its analysis of the underwriting performance of each of our underwriting segments.
Total return on investments includes investment income, equity in net income or loss of investment funds accounted for using the equity method, net realized gains and losses and the change in unrealized gains and losses generated by Arch's investment portfolio. Total return is calculated on a pre-tax basis and before investment expenses, excludes amounts reflected in the 'other' segment, and reflects the effect of financial market conditions along with foreign currency fluctuations. In addition, total return incorporates the timing of investment returns during the periods. There is no directly comparable GAAP financial measure for total return. Management uses total return on investments as a key measure of the return generated to Arch common shareholders on the capital held in the business, and compares the return generated by our investment portfolio against benchmark returns which we measured our portfolio against during the periods.

RESULTS OF OPERATIONS

The following table summarizes our consolidated financial data, including a reconciliation of net income available to Arch common shareholders to after-tax operating income available to Arch common shareholders. Each line item reflects the impact of our approximate 11% ownership of Watford Re's common equity.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Net income available to Arch common shareholders	$233,243	$173,818	$370,519	$415,727
Net realized (gains) losses	61,426	(18,452)	173,190	(47,586)
Net impairment losses recognized in earnings	470	1,730	632	3,537
Equity in net (income) loss of investment funds accounted for using the equity method	(8,472)	(32,706)	(36,541)	(80,794)
Net foreign exchange (gains) losses	(47,038)	38,012	(31,482)	57,808
UGC transaction costs and other	6,908	2,675	7,738	18,259
Loss on redemption of preferred shares	—	—	2,710	—
Income tax expense (benefit) (1)	(3,941)	3,842	(9,027)	(67)
After-tax operating income available to Arch common shareholders	$242,596	$168,919	$477,739	$366,884
Beginning common shareholders' equity	$8,370,372	$7,833,289	$8,324,047	$7,481,163

Ending common shareholders’ equity	8,383,755	8,126,332	8,383,755	8,126,332
Average common shareholders’ equity	$8,377,064	$7,979,811	$8,353,901	$7,803,748
Annualized return on average common equity %	11.1	8.7	8.9	10.7
Annualized operating return on average common equity %	11.6	8.5	11.4	9.4

(1) Income tax on net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses, UGC transaction costs and other and loss on redemption of preferred shares reflects the relative mix reported by jurisdiction and the varying tax rates in each jurisdiction.

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Segment Information

We classify our businesses into three underwriting segments — insurance, reinsurance and mortgage — and two other operating segments — corporate (non-underwriting) and 'other.' Our insurance, reinsurance and mortgage segments each have managers who are responsible for the overall profitability of their respective segments and who are directly accountable to our chief operating decision makers, the President and Chief Executive Officer of Arch Capital and the Chief Financial Officer of Arch Capital. The chief operating decision makers do not assess performance, measure return on equity or make resource allocation decisions on a line of business basis. Management measures segment performance for our three underwriting segments based on underwriting income or loss. We do not manage our assets by underwriting segment, with the exception of goodwill and intangible assets, and, accordingly, investment income is not allocated to each underwriting segment.

We determined our reportable segments using the management approach described in accounting guidance regarding disclosures about segments of an enterprise and related information. The accounting policies of the segments are the same as those used for the preparation of our consolidated financial statements. Intersegment business is allocated to the segment accountable for the underwriting results.

Insurance Segment

The following tables set forth our insurance segment's underwriting results:

	Three Months Ended June 30,		
	2018	2017	% Change
Gross premiums written	$769,372	$743,902	3.4
Premiums ceded	(245,265)	(247,446)	
Net premiums written	524,107	496,456	5.6
Change in unearned premiums	22,342	21,118	
Net premiums earned	546,449	517,574	5.6
Losses and loss adjustment expenses	(357,465)	(350,939)	
Acquisition expenses	(90,670)	(78,872)	
Other operating expenses	(92,680)	(92,267)	
Underwriting income (loss)	$5,634	$(4,504)	n/m

Underwriting Ratios			% Point Change
Loss ratio	65.4 %	67.8 %	(2.4)
Acquisition expense ratio	16.6 %	15.2 %	1.4
Other operating expense ratio	17.0 %	17.8 %	(0.8)
Combined ratio	99.0 %	100.8 %	(1.8)

	Six Months Ended June 30,		
	2018	2017	% Change
Gross premiums written	$1,592,750	$1,526,183	4.4
Premiums ceded	(492,445)	(481,541)	
Net premiums written	1,100,305	1,044,642	5.3
Change in unearned premiums	(15,119)	(21,422)	
Net premiums earned	1,085,186	1,023,220	6.1
Losses and loss adjustment expenses	(711,195)	(683,580)	
Acquisition expenses	(175,839)	(153,740)	
Other operating expenses	(184,654)	(180,393)	
Underwriting income	$13,498	$5,507	145.1

Underwriting Ratios			% Point Change

Loss ratio	65.5 %	66.8 %	(1.3)
Acquisition expense ratio	16.2 %	15.0 %	1.2
Other operating expense ratio	17.0 %	17.6 %	(0.6)
Combined ratio	98.7 %	99.4 %	(0.7)

The insurance segment consists of our insurance underwriting units which offer specialty product lines on a worldwide basis. Product lines include:

•Construction and national accounts: primary and excess casualty coverages to middle and large accounts in the construction industry and a wide range of products for middle and large national accounts, specializing in loss sensitive primary casualty insurance programs (including large deductible, self-insured retention and retrospectively rated programs).

•Excess and surplus casualty: primary and excess casualty insurance coverages, including middle market energy business, and contract binding, which primarily provides casualty coverage through a network of appointed agents to small and medium risks.

•Lenders products: collateral protection, debt cancellation and service contract reimbursement products to banks, credit unions, automotive dealerships and original equipment manufacturers and other specialty programs that pertain to automotive lending and leasing.

•Professional lines: directors' and officers' liability, errors and omissions liability, employment practices liability, fiduciary liability, crime, professional indemnity and other financial related coverages for corporate, private equity, venture capital, real estate investment trust, limited partnership, financial institution and not-for-profit clients of all sizes and medical professional and general liability insurance coverages for the healthcare industry. The business is predominately written on a claims-made basis.

•Programs: primarily package policies, underwriting workers' compensation and umbrella liability business in support of desirable package programs, targeting program managers with unique expertise and niche products offering

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general liability, commercial automobile, inland marine and property business with minimal catastrophe exposure.
•Property, energy, marine and aviation: primary and excess general property insurance coverages, including catastrophe-exposed property coverage, for commercial clients. Coverages for marine include hull, war, specie and liability. Aviation and stand alone terrorism are also offered.
•Travel, accident and health: specialty travel and accident and related insurance products for individual, group travelers, travel agents and suppliers, as well as accident and health, which provides accident, disability and medical plan insurance coverages for employer groups, medical plan members, students and other participant groups.
•Other: includes alternative market risks (including captive insurance programs), excess workers' compensation and employer's liability insurance coverages for qualified self-insured groups, associations and trusts, and contract and commercial surety coverages, including contract bonds (payment and performance bonds) primarily for medium and large contractors and commercial surety bonds for Fortune 1,000 companies and smaller transaction business programs.

Premiums Written.

The following tables set forth our insurance segment's net premiums written by major line of business:

	Three Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Professional lines	$108,298	20.7	$110,784	22.3
Programs	100,178	19.1	93,428	18.8
Construction and national accounts	66,384	12.7	73,474	14.8
Travel, accident and health	63,222	12.1	52,690	10.6
Property, energy, marine and aviation	62,121	11.9	46,031	9.3
Excess and surplus casualty	40,042	7.6	45,222	9.1
Lenders products	22,290	4.3	21,459	4.3
Other	61,572	11.7	53,368	10.7
Total	$524,107	100.0	$496,456	100.0

2018 Second Quarter versus 2017 Second Quarter. Gross premiums written by the insurance segment in the 2018 second quarter were 3.4% higher than in the 2017 second quarter, while net premiums written were 5.6% higher than in the 2017 second quarter. Changes in foreign currency rates resulted in an increase in net premiums written in the 2018 second quarter of $2.0 million, or 0.4%, compared to the 2017 second quarter. The increase in net premiums written reflected growth in property, primarily due to new business and rate increases, in travel, due to both new business and growth in existing

accounts, and in programs, reflecting rate increases and growth in recently added programs.

	Six Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Professional lines	$228,087	20.7	$219,252	21.0
Programs	196,734	17.9	193,385	18.5
Construction and national accounts	164,812	15.0	173,451	16.6
Travel, accident and health	143,746	13.1	118,218	11.3
Property, energy, marine and aviation	114,248	10.4	86,135	8.2
Excess and surplus casualty	81,964	7.4	91,054	8.7
Lenders products	44,274	4.0	46,164	4.4
Other	126,440	11.5	116,983	11.2
Total	$1,100,305	100.0	$1,044,642	100.0

Six Months Ended June 30, 2018 versus 2017 period. Gross premiums written by the insurance segment for the six months ended June 30, 2018 were 4.4% higher than in the 2017 period, while net premiums written were 5.3% higher than in the 2017 period. The increase in net premiums written reflected growth in travel, due to both new business and growth in existing accounts, in property, primarily due to new business and rate increases, and in professional lines, reflecting increases in small and medium sized accounts.

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Net Premiums Earned.
The following tables set forth our insurance segment's net premiums earned by major line of business:

	Three Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Professional lines	$112,226	20.5	$108,375	20.9
Programs	97,333	17.8	87,582	16.9
Construction and national accounts	81,784	15.0	80,848	15.6
Travel, accident and health	74,754	13.7	63,436	12.3
Property, energy, marine and aviation	50,840	9.3	41,423	8.0
Excess and surplus casualty	40,049	7.3	48,850	9.4
Lenders products	23,161	4.2	24,562	4.7
Other	66,302	12.1	62,498	12.1
Total	$546,449	100.0	$517,574	100.0

	Six Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Professional lines	$228,244	21.0	$217,013	21.2
Programs	192,344	17.7	172,762	16.9
Construction and national accounts	158,996	14.7	158,271	15.5
Travel, accident and health	141,589	13.0	121,917	11.9
Property, energy, marine and aviation	99,443	9.2	79,501	7.8
Excess and surplus casualty	86,593	8.0	99,857	9.8
Lenders products	45,977	4.2	48,661	4.8
Other	132,000	12.2	125,238	12.2
Total	$1,085,186	100.0	$1,023,220	100.0

Net premiums written are primarily earned on a pro rata basis over the terms of the policies for all products, usually 12 months. Net premiums earned reflect changes in net premiums written over the previous five quarters. Net premiums earned in the 2018 second quarter were 5.6% higher than in the 2017 second quarter. Net premiums earned for the six months ended June 30, 2018 were 6.1% higher than in the 2017 period.

Losses and Loss Adjustment Expenses.
The table below shows the components of the insurance segment's loss ratio:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2018	2017	2018	2017
Current year	66.5 %	68.2 %	66.3 %	67.2 %
Prior period reserve development	(1.1)%	(0.4)%	(0.8)%	(0.4)%
Loss ratio	65.4 %	67.8 %	65.5 %	66.8 %

Current Year Loss Ratio.
The insurance segment's current year loss ratio in the 2018 second quarter was 1.7 points lower than in the 2017 second quarter and reflected 1.4 points of current year catastrophic activity, compared to 1.6 points in the 2017 second quarter. The insurance segment's current year loss ratio for the six months ended June 30, 2018 was 0.9 points lower than in the 2017 period and reflected 0.8 points of current year catastrophic activity, compared to 1.1 points in the 2017 period. The balance of the change in the 2018 loss ratios resulted, in part, from changes in mix of business.

Prior Period Reserve Development.
The insurance segment's net favorable development was $6.1 million, or 1.1 points, for the 2018 second quarter, compared to $2.0 million, or 0.4 points, for the 2017 second quarter, and $8.2 million, or 0.8 points, for the six months

ended June 30, 2018, compared to $4.1 million, or 0.4 points, for the 2017 period. See note 6, "Reserve for Losses and Loss Adjustment Expenses," to our consolidated financial statements for information about the insurance segment's prior year reserve development.

Underwriting Expenses.

2018 Second Quarter versus 2017 Second Quarter. The insurance segment's underwriting expense ratio was 33.6% in the 2018 second quarter, compared to 33.0% in the 2017 second quarter. The comparison of the underwriting expense ratios reflects changes in the level of reinsurance ceded on a quota share basis and changes in the mix of business.

Six Months Ended June 30, 2018 versus 2017 period. The insurance segment's underwriting expense ratio was 33.2% for the six months ended June 30, 2018, compared to 32.6% for the 2017 period. The comparison of the underwriting expense ratios reflects changes in the level of reinsurance ceded on a quota share basis and changes in the mix of business.

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Reinsurance Segment

The following tables set forth our reinsurance segment's underwriting results:

	Three Months Ended June 30,		
	2018	2017	% Change
Gross premiums written	$490,327	$453,186	8.2
Premiums ceded	(136,247)	(115,262)	
Net premiums written	354,080	337,924	4.8
Change in unearned premiums	(13,762)	(23,222)	
Net premiums earned	340,318	314,702	8.1
Other underwriting income	(129)	(279)	
Losses and loss adjustment expenses	(229,956)	(207,606)	
Acquisition expenses	(50,142)	(51,151)	
Other operating expenses	(35,678)	(36,711)	
Underwriting income	$24,413	$18,955	28.8
Underwriting Ratios			% Point Change
Loss ratio	67.6 %	66.0 %	1.6
Acquisition expense ratio	14.7 %	16.3 %	(1.6)
Other operating expense ratio	10.5 %	11.7 %	(1.2)
Combined ratio	92.8 %	94.0 %	(1.2)

	Six Months Ended June 30,		
	2018	2017	% Change
Gross premiums written	$1,067,810	$928,968	14.9
Premiums ceded	(331,977)	(281,354)	
Net premiums written	735,833	647,614	13.6
Change in unearned premiums	(116,343)	(88,061)	
Net premiums earned	619,490	559,553	10.7
Other underwriting income	1,103	(585)	
Losses and loss adjustment expenses	(371,631)	(313,060)	
Acquisition expenses	(98,461)	(97,298)	
Other operating expenses	(71,249)	(74,244)	
Underwriting income	$79,252	$74,366	6.6
Underwriting Ratios			% Point Change
Loss ratio	60.0 %	55.9 %	4.1
Acquisition expense ratio	15.9 %	17.4 %	(1.5)
Other operating expense ratio	11.5 %	13.3 %	(1.8)
Combined ratio	87.4 %	86.6 %	0.8

The reinsurance segment consists of our reinsurance underwriting units which offer specialty product lines on a worldwide basis. Product lines include:

•Casualty: provides coverage to ceding company clients on third party liability and workers' compensation exposures from ceding company clients, primarily on a treaty basis. Exposures include, among others, executive assurance, professional liability, workers' compensation, excess and umbrella liability, excess motor and healthcare business.

•Marine and aviation: provides coverage for energy, hull, cargo, specie, liability and transit, and aviation business, including airline and general aviation risks. Business written may also include space business, which includes coverages for satellite assembly, launch and operation for commercial space programs.

•Other specialty: provides coverage to ceding company clients for proportional motor and other lines, including surety, accident and health, workers' compensation catastrophe, agriculture, trade credit and political risk.
•Property catastrophe: provides protection for most catastrophic losses that are covered in the underlying policies written by reinsureds, including hurricane, earthquake, flood, tornado, hail and fire, and coverage for other perils on a case-by-case basis. Property catastrophe reinsurance provides coverage on an excess of loss basis when aggregate losses and loss adjustment expense from a single occurrence or aggregation of losses from a covered peril exceed the retention specified in the contract.
•Property excluding property catastrophe: provides coverage for both personal lines and commercial property exposures and principally covers buildings, structures, equipment and contents. The primary perils in this business include fire, explosion, collapse, riot, vandalism, wind, tornado, flood and earthquake. Business is assumed on both a proportional and excess of loss basis. In addition, facultative business is written which focuses on individual commercial property risks on an excess of loss basis.
•Other: includes life reinsurance business on both a proportional and non-proportional basis, casualty clash business and, in limited instances, non-traditional business which is intended to provide insurers with risk management solutions that complement traditional reinsurance.

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Premiums Written.

The following tables set forth our reinsurance segment's net premiums written by major line of business:

	Three Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Other specialty	$155,081	43.8	$155,328	46.0
Casualty	68,113	19.2	63,054	18.7
Property excluding property catastrophe	77,876	22.0	69,115	20.5
Property catastrophe	35,045	9.9	37,127	11.0
Marine and aviation	10,061	2.8	8,932	2.6
Other	7,904	2.2	4,368	1.3
Total	$354,080	100.0	$337,924	100.0
Pro rata	$212,858	60.1	$200,893	59.4
Excess of loss	141,222	39.9	137,031	40.6
Total	$354,080	100.0	$337,924	100.0

2018 Second Quarter versus 2017 Second Quarter. Gross premiums written by the reinsurance segment in the 2018 second quarter were 8.2% higher than in the 2017 second quarter, while net premiums written were 4.8% higher than in the 2017 second quarter. Changes in foreign currency rates resulted in an increase in net premiums written in the 2018 second quarter of $6.9 million, or 2.0%, compared to the 2017 second quarter. The increase in net premiums written reflected growth in property excluding property catastrophe business, primarily due to new accounts and rate increases.

	Six Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Other specialty	$294,073	40.0	$269,746	41.7
Casualty	198,289	26.9	173,674	26.8
Property excluding property catastrophe	163,046	22.2	144,502	22.3
Property catastrophe	42,677	5.8	29,650	4.6
Marine and aviation	20,073	2.7	18,473	2.9
Other	17,675	2.4	11,569	1.8
Total	$735,833	100.0	$647,614	100.0
Pro rata	$365,023	49.6	$329,909	50.9
Excess of loss	370,810	50.4	317,705	49.1
Total	$735,833	100.0	$647,614	100.0

Six Months Ended June 30, 2018 versus 2017 period. Gross premiums written by the reinsurance segment for the six months ended June 30, 2018 were 14.9% higher than in the 2017 period, while net premiums written were 13.6% higher than in the 2017 period. The increase in net premiums written reflected growth in property lines, primarily due to new business and rate increases, and in other specialty, primarily due to new international motor contracts.

Net Premiums Earned.

The following tables set forth our reinsurance segment's net premiums earned by major line of business:

	Three Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Other specialty	$149,648	44.0	$141,565	45.0
Casualty	85,009	25.0	79,903	25.4
Property excluding property catastrophe	70,849	20.8	62,884	20.0

Marine and aviation	10,089	3.0	9,986	3.2
Property catastrophe	15,716	4.6	15,759	5.0
Other	9,007	2.6	4,605	1.5
Total	$340,318	100.0	$314,702	100.0
Pro rata	$203,632	59.8	$181,988	57.8
Excess of loss	136,686	40.2	132,714	42.2
Total	$340,318	100.0	$314,702	100.0

	Six Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Other specialty	$253,365	40.9	$211,530	37.8
Casualty	154,381	24.9	152,871	27.3
Property excluding property catastrophe	139,603	22.5	132,736	23.7
Marine and aviation	19,478	3.1	19,476	3.5
Property catastrophe	34,103	5.5	31,936	5.7
Other	18,560	3.0	11,004	2.0
Total	$619,490	100.0	$559,553	100.0
Pro rata	$367,628	59.3	$315,080	56.3
Excess of loss	251,862	40.7	244,473	43.7
Total	$619,490	100.0	$559,553	100.0

Net premiums written, irrespective of the class of business, are generally earned on a pro rata basis over the terms of the underlying policies or reinsurance contracts. For the 2018 second quarter, net premiums earned were 8.1% higher than in the 2017 second quarter, and reflect changes in net premiums written over the previous five quarters. For the six months ended June 30, 2018, net premiums earned were 10.7% higher than in the 2017 period.

Other Underwriting Income (Loss).

Other underwriting income (loss) for the 2018 second quarter was $(0.1) million, compared to $(0.3) million for the 2017 second quarter, and $1.1 million for the six months ended June 30, 2018, compared to $(0.6) million for the 2017 period.

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Losses and Loss Adjustment Expenses.
The table below shows the components of the reinsurance segment's loss ratio:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2018	2017	2018	2017
Current year	77.3 %	78.6 %	71.2 %	73.2 %
Prior period reserve development	(9.7)%	(12.6)%	(11.2)%	(17.3)%
Loss ratio	67.6 %	66.0 %	60.0 %	55.9 %

Current Year Loss Ratio.
The reinsurance segment's current year loss ratio in the 2018 second quarter was 1.3 points lower than in the 2017 second quarter and reflected 2.2 points of current year catastrophic activity, compared to 5.4 points in the 2017 second quarter. The 2018 second quarter loss ratio contained 9.9 points, or $33.7 million, of property facultative loss activity, compared to 11.1 points, or $34.8 million, in the 2017 second quarter. The balance of the change in the 2018 second quarter current year loss ratio resulted, in part, from a higher level of large attritional loss activity than in the 2017 second quarter.
The reinsurance segment's current year loss ratio for the six months ended June 30, 2018 was 2.0 points lower than in the 2017 period and reflected 1.4 points of current year catastrophic activity, compared to 4.8 points in the 2017 period. The loss ratio for the six months ended June 30, 2018 contained 7.0 points, or $43.4 million, of property facultative loss activity, compared to 5.9 points, or $33.1 million, in the 2017 period.
Prior Period Reserve Development.
The reinsurance segment's net favorable development was $33.0 million, or 9.7 points, for the 2018 second quarter, compared to $39.5 million, or 12.6 points, for the 2017 second quarter, and $69.6 million, or 11.2 points, for the six months ended June 30, 2018, compared to $96.8 million, or 17.3 points, for the 2017 period. See note 6, "Reserve for Losses and Loss Adjustment Expenses," to our consolidated financial statements for information about the reinsurance segment's prior year reserve development.
Underwriting Expenses.
2018 Second Quarter versus 2017 Second Quarter. The underwriting expense ratio for the reinsurance segment was 25.2% in the 2018 second quarter, compared to 28.0% in the 2017 second quarter. The comparison of the underwriting expense ratios also reflected changes in the mix and type of business and a higher level of net premiums earned in the 2018 second quarter. The underwriting expense ratio benefited from a reduction in federal excise taxes incurred of $2.6 million, or 0.8 points, as the reinsurance agreements between the Company's U.S.-based property casualty insurance and

reinsurance subsidiaries and Arch Reinsurance Ltd. ("Arch Re Bermuda") were canceled on a cutoff basis as of January 1, 2018.
Six Months Ended June 30, 2018 versus 2017 period. The underwriting expense ratio for the reinsurance segment was 27.4% for the six months ended June 30, 2018, compared to 30.7% for the 2017 period. The comparison of the underwriting expense ratios also reflected changes in the mix and type of business and a higher level of net premiums earned for the 2018 period. The underwriting expense ratio benefited from a reduction in federal excise taxes incurred of $5.1 million, or 0.8 points, as discussed above.
Mortgage Segment
Our mortgage operations include U.S. and international mortgage insurance and reinsurance operations as well as GSE credit risk sharing transactions. Our mortgage group includes direct mortgage insurance in the U.S. primarily provided by Arch Mortgage Insurance Company and United Guaranty Residential Insurance Company (together, "Arch MI U.S."), as well as through Arch Mortgage Guaranty Company; mortgage reinsurance by Arch Re Bermuda to mortgage insurers on both a proportional and non-proportional basis globally; direct mortgage insurance in Europe provided by Arch MI Europe and in Hong Kong by Arch MI Asia; and various GSE credit risk sharing products provided primarily by Arch Re Bermuda.

The following tables set forth our mortgage segment's underwriting results.

	Three Months Ended June 30,		
	2018	2017	% Change
Gross premiums written	$330,990	$336,226	(1.6)
Premiums ceded	(50,867)	(62,314)	
Net premiums written	280,123	273,912	2.3
Change in unearned premiums	10,355	(16,068)	
Net premiums earned	290,478	257,844	12.7
Other underwriting income	3,315	4,277	
Losses and loss adjustment expenses	(21,591)	(20,694)	
Acquisition expenses	(27,737)	(25,666)	
Other operating expenses	(38,729)	(32,150)	
Underwriting income	$205,736	$183,611	12.0
Underwriting Ratios			% Point Change
Loss ratio	7.4 %	8.0 %	(0.6)
Acquisition expense ratio	9.5 %	10.0 %	(0.5)
Other operating expense ratio	13.3 %	12.5 %	0.8
Combined ratio	30.2 %	30.5 %	(0.3)

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	Six Months Ended June 30,		
	2018	2017	% Change
Gross premiums written	$652,168	$684,849	(4.8)
Premiums ceded	(97,004)	(136,239)	
Net premiums written	555,164	548,610	1.2
Change in unearned premiums	15,556	(46,243)	
Net premiums earned	570,720	502,367	13.6
Other underwriting income	6,731	8,400	
Losses and loss adjustment expenses	(65,057)	(49,759)	
Acquisition expenses	(54,304)	(54,432)	
Other operating expenses	(77,500)	(74,020)	
Underwriting income	$380,590	$332,556	14.4
Underwriting Ratios			% Point Change
Loss ratio	11.4 %	9.9 %	1.5
Acquisition expense ratio	9.5 %	10.8 %	(1.3)
Other operating expense ratio	13.6 %	14.7 %	(1.1)
Combined ratio	34.5 %	35.4 %	(0.9)

Premiums Written.

The following tables set forth our mortgage segment’s net premiums written by client location and underwriting location (i.e., where the business is underwritten):

	Three Months Ended June 30,			
	2018		2017	
	Amount	%	Amount	%
Client location:				