ARCH CAPITAL GROUP LTD.
Form 10-Q
August 05, 2016
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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

June 30, 2016

Or

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

Commission file number: 001-26456

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

Bermuda
(State or other jurisdiction of incorporation or organization)

Not Applicable
(I.R.S. Employer Identification No.)

Waterloo House, Ground Floor
100 Pitts Bay Road, Pembroke HM 08
(Address of principal executive offices)

(441) 278-9250
(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" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.
Large accelerated Filer þ Accelerated Filer o Non-accelerated Filer o Smaller reporting company 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 July 28, 2016, there were 122,572,026 common shares, $0.0033 par value per share, of the registrant outstanding.

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ARCH CAPITAL GROUP LTD.

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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 release 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 release 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” 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 release 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;
- 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, 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 forms 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;
- the integration of businesses we have acquired or may acquire into our existing operations;
- 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, 2016;
- 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 in our insurance or reinsurance business 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;
- losses relating to aviation business and business produced by a certain managing underwriting agency for which we may be liable to the purchaser of our prior reinsurance business or to others in connection with the May 5, 2000 asset sale described in our periodic reports filed with the SEC;
- 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;
- statutory or regulatory developments, including as to tax policy and 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; 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, 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.

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.:

We have reviewed the accompanying consolidated balance sheet of Arch Capital Group Ltd. and its subsidiaries (the "Company") as of June 30, 2016, and the related consolidated statements of income and comprehensive income for the three-month and six-month periods ended June 30, 2016 and June 30, 2015, and the consolidated statements of changes in shareholders' equity and cash flows for the six-month periods ended June 30, 2016 and June 30, 2015. These interim financial statements are the responsibility of the Company's management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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 Public Company Accounting Oversight Board (United States), 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.

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet as of December 31, 2015, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for the year then ended (not presented herein), and in our report dated February 26, 2016, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet information as of December 31, 2015, is fairly stated in all material respects in relation to the consolidated balance sheet from which it has been derived.

/s/ PricewaterhouseCoopers LLP

August 5, 2016

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

	(Unaudited) June 30, 2016	December 31, 2015
Assets		
Investments:		
Fixed maturities available for sale, at fair value (amortized cost: $10,879,863 and $10,515,440)	$11,050,464	$10,459,353
Short-term investments available for sale, at fair value (amortized cost: $855,764 and $591,141)	853,531	587,904
Collateral received under securities lending, at fair value (amortized cost: $338,318 and $385,984)	338,326	389,336
Equity securities available for sale, at fair value (cost: $414,537 and $543,767)	490,815	618,405
Other investments available for sale, at fair value (cost: $167,914 and $261,343)	182,957	300,476
Investments accounted for using the fair value option	3,066,029	2,894,494
Investments accounted for using the equity method	685,766	592,973
Total investments	16,667,888	15,842,941
Cash	516,591	553,326
Accrued investment income	85,317	87,206
Securities pledged under securities lending, at fair value (amortized cost: $328,274 and $386,411)	330,773	384,081
Premiums receivable	1,260,607	983,443
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses	2,034,970	1,867,373
Contractholder receivables	1,600,426	1,486,296
Prepaid reinsurance premiums	540,954	427,609
Deferred acquisition costs, net	462,906	433,477
Receivable for securities sold	142,315	45,505
Goodwill and intangible assets	88,327	97,531
Other assets	680,843	968,482
Total assets	$24,411,917	$23,177,270
Liabilities		
Reserve for losses and loss adjustment expenses	$9,471,647	$9,125,250
Unearned premiums	2,618,359	2,333,932
Reinsurance balances payable	295,987	224,120
Contractholder payables	1,600,426	1,486,296
Collateral held for insured obligations	261,228	248,982
Deposit accounting liabilities	22,325	260,364
Senior notes	791,392	791,306
Revolving credit agreement borrowings	397,830	530,434
Securities lending payable	338,318	393,844
Payable for securities purchased	382,834	64,996
Other liabilities	533,694	568,852
Total liabilities	16,714,040	16,028,376
Commitments and Contingencies		

Redeemable noncontrolling interests	205,366	205,182
Shareholders' Equity		
Non-cumulative preferred shares	325,000	325,000
Common shares ($0.0033 par, shares issued: 174,355,513 and 173,107,849)	581	577
Additional paid-in capital	517,942	467,339
Retained earnings	7,725,255	7,370,371
Accumulated other comprehensive income (loss), net of deferred income tax	163,834	(16,502)
Common shares held in treasury, at cost (shares: 51,783,253 and 50,480,066)	(2,028,690)	(1,941,904)
Total shareholders' equity available to Arch	6,703,922	6,204,881
Non-redeemable noncontrolling interests	788,589	738,831
Total shareholders' equity	7,492,511	6,943,712
Total liabilities, noncontrolling interests and shareholders' equity	$24,411,917	$23,177,270

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,	
	2016	2015	2016	2015
Revenues				
Net premiums written	$1,023,563	$943,580	$2,144,798	$2,010,575
Change in unearned premiums	(17,578)	(142)	(187,234)	(156,873)
Net premiums earned	1,005,985	943,438	1,957,564	1,853,702
Net investment income	88,338	86,963	182,073	165,957
Net realized gains (losses)	68,218	(35,725)	105,542	47,623
Other-than-temporary impairment losses	(5,395)	(1,126)	(13,132)	(8,373)
Less investment impairments recognized in other comprehensive income, before taxes	52	13	150	1,461
Net impairment losses recognized in earnings	(5,343)	(1,113)	(12,982)	(6,912)
Other underwriting income	25,224	7,717	30,271	19,253
Equity in net income (loss) of investment funds accounted for using the equity method	8,737	16,167	15,392	22,056
Other income (loss)	(7)	2,205	(32)	317
Total revenues	1,191,152	1,019,652	2,277,828	2,101,996
Expenses				
Losses and loss adjustment expenses	584,592	519,426	1,107,541	1,013,142
Acquisition expenses	175,281	175,425	345,746	338,501
Other operating expenses	159,590	151,190	311,859	299,727
Corporate expenses	17,200	17,418	26,583	26,763
Interest expense	15,663	4,011	31,770	16,747
Net foreign exchange (gains) losses	(24,662)	19,583	(1,096)	(46,918)
Total expenses	927,664	887,053	1,822,403	1,647,962
Income before income taxes	263,488	132,599	455,425	454,034
Income tax expense	(14,131)	(6,780)	(30,441)	(19,458)
Net income	$249,357	$125,819	$424,984	$434,576
Net (income) loss attributable to noncontrolling interests	(38,302)	(10,029)	(59,131)	(35,450)
Net income available to Arch	211,055	115,790	365,853	399,126
Preferred dividends	(5,485)	(5,485)	(10,969)	(10,969)
Net income available to Arch common shareholders	$205,570	$110,305	$354,884	$388,157
Net income per common share				
Basic	$1.70	$0.91	$2.94	$3.16
Diluted	$1.65	$0.88	$2.85	$3.05
Weighted average common shares and common share equivalents outstanding				
Basic	120,599,060	121,719,214	120,513,620	122,957,384

Diluted	124,365,596	125,885,420	124,425,126	127,156,713

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,	
	2016	2015	2016	2015
Comprehensive Income				
Net income	$249,357	$125,819	$424,984	$434,576
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	102,460	(81,935)	235,441	2,369
Portion of other-than-temporary impairment losses recognized in other comprehensive income, net of deferred income tax	(52)	(13)	(150)	(1,461)
Reclassification of net realized (gains) losses, net of income taxes, included in net income	(22,094)	(21,214)	(54,317)	(52,146)
Foreign currency translation adjustments	(18,151)	11,580	(838)	(11,177)
Comprehensive income	311,520	34,237	605,120	372,161
Net (income) loss attributable to noncontrolling interests	(38,302)	(10,029)	(59,131)	(35,450)
Foreign currency translation adjustments attributable to noncontrolling interests	42	—	200	—
Comprehensive income available to Arch	$273,260	$24,208	$546,189	$336,711

See Notes to Consolidated Financial Statements

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

	(Unaudited) Six Months Ended June 30,	
	2016	2015
Non-cumulative preferred shares		
Balance at beginning and end of period	$325,000	$325,000
Common shares		
Balance at beginning of year	577	572
Common shares issued, net	4	4
Balance at end of period	581	576
Additional paid-in capital		
Balance at beginning of year	467,339	383,073
Common shares issued, net	8,265	7,378
Exercise of stock options	5,143	9,624
Amortization of share-based compensation	35,769	36,044
Other	1,426	1,414
Balance at end of period	517,942	437,533
Retained earnings		
Balance at beginning of year	7,370,371	6,854,571
Net income	424,984	434,576
Net (income) loss attributable to noncontrolling interests	(59,131)	(35,450)
Preferred share dividends	(10,969)	(10,969)
Balance at end of period	7,725,255	7,242,728
Accumulated other comprehensive income (loss), net of deferred income tax		
Balance at beginning of year	(16,502)	128,856
Unrealized appreciation (decline) in value of available-for-sale investments, net of deferred income tax:		
Balance at beginning of year	50,085	161,598
Unrealized holding gains (losses) arising during period, net of reclassification adjustment	181,124	(49,777)
Portion of other-than-temporary impairment losses recognized in other comprehensive income, net of deferred income tax	(150)	(1,461)
Balance at end of period	231,059	110,360
Foreign currency translation adjustments:		
Balance at beginning of year	(66,587)	(32,742)
Foreign currency translation adjustments	(838)	(11,177)
Foreign currency translation adjustments attributable to noncontrolling interests	200	—
Balance at end of period	(67,225)	(43,919)
Balance at end of period	163,834	66,441
Common shares held in treasury, at cost		
Balance at beginning of year	(1,941,904)	(1,562,019)
Shares repurchased for treasury	(86,786)	(372,744)

Balance at end of period	(2,028,690)	(1,934,763)
Total shareholders’ equity available to Arch	6,703,922	6,137,515
Non-redeemable noncontrolling interests	788,589	794,880
Total shareholders’ equity	$7,492,511	$6,932,395

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,	
	2016	2015
Operating Activities		
Net income	$424,984	$434,576
Adjustments to reconcile net income to net cash provided by operating activities:		
Net realized (gains) losses	(126,337)	(60,818)
Net impairment losses recognized in earnings	12,982	6,912
Equity in net income or loss of investment funds accounted for using the equity method and other income or loss	11,161	(10,349)
Share-based compensation	35,769	36,044
Changes in:		
Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable	186,199	91,616
Unearned premiums, net of prepaid reinsurance premiums	187,234	156,873
Premiums receivable	(278,814)	(206,642)
Deferred acquisition costs, net	(33,450)	(39,009)
Reinsurance balances payable	73,712	19,657
Other liabilities	56,314	(94,841)
Other items	(8,530)	51,180
Net Cash Provided By Operating Activities	541,224	385,199
Investing Activities		
Purchases of fixed maturity investments	(17,541,731)	(14,641,391)
Purchases of equity securities	(212,678)	(288,535)
Purchases of other investments	(650,613)	(779,678)
Proceeds from sales of fixed maturity investments	16,978,549	14,333,436
Proceeds from sales of equity securities	337,619	272,343
Proceeds from sales, redemptions and maturities of other investments	636,535	587,650
Proceeds from redemptions and maturities of fixed maturity investments	370,980	474,984
Net settlements of derivative instruments	45,174	19,006
Proceeds from investment in joint venture	—	40,000
Net (purchases) sales of short-term investments	(304,460)	3,707
Change in cash collateral related to securities lending	(18,715)	(18,329)
Purchase of business, net of cash acquired	(1,460)	818
Purchases of fixed assets	(8,284)	(6,396)
Change in other assets	13,416	(36,769)
Net Cash Provided By (Used For) Investing Activities	(355,668)	(39,154)
Financing Activities		
Purchases of common shares under share repurchase program	(75,256)	(361,877)
Proceeds from common shares issued, net	(1,487)	2,178
Proceeds from borrowings	46,000	—
Repayments of borrowings	(179,171)	—
Change in cash collateral related to securities lending	18,715	18,329
Dividends paid to redeemable noncontrolling interests	(8,994)	(9,313)
Other	(2,223)	55,018

Preferred dividends paid	(10,969)	(10,969)
Net Cash Provided By (Used For) Financing Activities	(213,385)	(306,634)
Effects of exchange rate changes on foreign currency cash	(8,906)	(39)
Increase (decrease) in cash	(36,735)	39,372
Cash beginning of year	553,326	485,702
Cash end of period	$516,591	$525,074
Income taxes paid	$26,619	$25,992
Interest paid	$31,524	$25,076

See Notes to Consolidated Financial Statements

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

1. General

Arch Capital Group Ltd. (“ACGL”) is a Bermuda public limited liability company which provides insurance and reinsurance on a worldwide basis through its wholly-owned subsidiaries. As used herein, the “Company” means ACGL and its subsidiaries. The Company’s consolidated financial statements include the results of Watford Holdings Ltd. and its wholly owned subsidiaries (“Watford Re”). See Note 3.
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 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, 2015 (“2015 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 a new accounting standard in the 2016 first quarter that provided targeted improvements to consolidation guidance for limited partnerships and other similarly structured entities. The adoption of this standard resulted in the Company concluding that it no longer had a

variable interest in Alternative Re Ltd. and, as a result, no longer is required to consolidate Alternative Re Ltd. in its financial statements. Alternative Re Ltd. is a Bermuda-domiciled company that provides collateralized segregated accounts to its clients. The Company applied this new standard on a modified retrospective basis as of January 1, 2016. Such adoption did not impact the Company’s shareholders’ equity or net income.
The adoption of the new standard also resulted in a review of certain funds within the Company’s investment portfolio where the Company has a limited partnership interest. See Note 6 for disclosures on limited partnership interests.
The Company also adopted new accounting guidance pertaining to hybrid instruments. The new guidance clarified the evaluation of whether the nature of a host contract within a hybrid instrument issued in the form of a share is more akin to debt or equity. The Company has adopted this new guidance on a modified retrospective basis as of January 1, 2016. Based on a review of hybrid instruments issued in the form of a share (both held in its investment portfolio and issued as part of capital raising), the Company determined the new accounting guidance had no impact on the classification or accounting for its existing hybrid instruments.

Recently Issued Accounting Standards Not Yet Adopted

An accounting standard was issued in the 2015 second quarter requiring new disclosures about the reserve for losses and loss adjustment expenses for short-duration insurance contracts. These disclosures will provide additional insight

into an insurance entity's ability to underwrite and anticipate costs associated with claims. This accounting guidance is effective for the 2016 annual reporting period and interim periods thereafter and should be applied retrospectively. The Company is assessing the impact the implementation of this standard will have on the disclosures included in its consolidated financial statements.

A new accounting standard was issued in the 2016 first quarter to improve and simplify the accounting for employee share-based payment transactions. The new standard provides simplifications with respect to income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows for these types of transactions. The standard is effective in the 2017 first quarter and early adoption is permitted. The application of the new standard is dependent on the specific area that is amended. The Company is assessing the impact the implementation of this standard will have on its consolidated financial statements.

In the 2016 first quarter, new accounting guidance was issued pertaining to the accounting for leases by a lessee. The new accounting guidance requires that the lessee recognize an

asset and a liability for leases with a lease term greater than 12 months regardless of whether the lease is classified as operating or financing. Under current accounting, operating leases are not reflected in the balance sheet. This accounting guidance is effective for the 2019 first quarter, though early application is permitted, and should be applied on a modified retrospective basis. The Company is assessing the impact the implementation of this standard will have on its consolidated financial statements.

A new accounting standard was issued in the 2016 second quarter that changes how entities will measure credit losses for most financial assets and certain other instruments that aren't measured at fair value through net income. The standard requires an entity to estimate its lifetime "expected credit loss" and record an allowance that, when deducted from the amortized cost basis of the financial asset, presents the net amount expected to be collected on the financial asset. This accounting guidance is effective for the 2020 first quarter, though early application is permitted in the 2019 first quarter, and should be applied on a modified retrospective basis for the majority of the provisions. The Company is assessing the impact the implementation of this standard will have on its consolidated financial statements.

3. 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.

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

	June 30, 2016	December 31, 2015
Assets		
Investments accounted for using the fair value option	$1,677,836	$1,617,107
Cash	74,525	108,550
Accrued investment income	16,329	19,249
Premiums receivable	197,062	162,263
Reinsurance recoverable on unpaid and paid losses	16,675	14,135
Prepaid reinsurance premiums	10,602	11,129
Deferred acquisition costs, net	80,304	75,443
Receivable for securities sold	40,467	34,095
Other assets	92,935	80,361
Total assets of consolidated VIE	$2,206,735	$2,122,332

Liabilities		
Reserves for losses and loss adjustment expenses	$404,653	$290,997
Unearned premiums	260,721	249,980
Reinsurance balances payable	12,872	14,005
Revolving credit agreement borrowings	297,830	430,434
Payable for securities purchased	34,729	33,062
Other liabilities	89,593	53,624
Total liabilities of consolidated VIE	$1,100,398	$1,072,102
Redeemable noncontrolling interests	$220,066	$219,882

For the six months ended June 30, 2016, Watford Re generated $131.0 million of cash provided by operating activities, $13.8 million of cash used for investing activities and $148.2 million of cash used for financing activities, compared to $137.8 million of cash provided by operating activities, $134.9 million of cash used for investing activities and $40.3 million of cash provided by financing activities for the six months ended June 30, 2015.

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, 2016. 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.’

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

	June 30, 2016	2015
Three Months Ended		
Balance, beginning of period	$754,915	$789,594
Amounts attributable to noncontrolling interests	33,716	5,286
Foreign currency translation adjustments attributable to noncontrolling interests	(42)	—
Balance, end of period	$788,589	$794,880
Six Months Ended		
Balance, beginning of year	$738,831	$769,081
Amounts attributable to noncontrolling interests	49,958	25,799
Foreign currency translation adjustments attributable to noncontrolling interests	(200)	—
Balance, end of period	$788,589	$794,880

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, 2016	2015
Three Months Ended		
Balance, beginning of period	$205,274	$219,604
Shares acquired by the Company	—	(14,700)
Accretion of preference share issuance costs	92	92
Balance, end of period	$205,366	$204,996
Six Months Ended		
Balance, beginning of year	$205,182	$219,512
Shares acquired by the Company	—	(14,700)
Accretion of preference share issuance costs	184	184
Balance, end of period	$205,366	$204,996

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, 2016	2015
Three Months Ended		
Amounts attributable to non-redeemable noncontrolling interests	$(33,716)	$(5,286)
Dividends attributable to redeemable noncontrolling interests	(4,586)	(4,743)
Net (income) loss attributable to noncontrolling interests	$(38,302)	$(10,029)

Six Months Ended		
Amounts attributable to non-redeemable noncontrolling interests	$(49,958)	$(25,799)
Dividends attributable to redeemable noncontrolling interests	(9,173)	(9,651)
Net (income) loss attributable to noncontrolling interests	$(59,131)	$(35,450)

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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,	
	2016	2015	2016	2015
Numerator:				
Net income	$249,357	$125,819	$424,984	$434,576
Net (income) loss attributable to noncontrolling interests	(38,302)	(10,029)	(59,131)	(35,450)
Net income available to Arch	211,055	115,790	365,853	399,126
Preferred dividends	(5,485)	(5,485)	(10,969)	(10,969)
Net income available to Arch common shareholders	$205,570	$110,305	$354,884	$388,157
Denominator:				
Weighted average common shares outstanding — basic	120,599,060	121,719,214	120,513,620	122,957,384
Effect of dilutive common share equivalents:				
Nonvested restricted shares	1,295,342	1,258,741	1,374,272	1,334,633
Stock options (1)	2,471,194	2,907,465	2,537,234	2,864,696
Weighted average common shares and common share equivalents outstanding — diluted	124,365,596	125,885,420	124,425,126	127,156,713
Earnings per common share:				
Basic	$1.70	$0.91	$2.94	$3.16
Diluted	$1.65	$0.88	$2.85	$3.05

(1) 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 2016 second quarter and 2015 second quarter, the number of stock options excluded were 575,931 and 1,009,113, respectively. For the six months ended June 30, 2016 and 2015, the number of stock options excluded were 1,027,784 and 1,187,162, respectively.

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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 Chairman and Chief Executive Officer, the President and Chief Operating Officer, and the Chief Financial Officer of ACGL. 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 results of Arch Mortgage Insurance Company ("Arch MI U.S.") and Arch Mortgage Insurance Designated Activity Company, leading providers of mortgage insurance products and services to the U.S. and European markets, respectively. Arch MI U.S. is approved as an eligible mortgage insurer by Federal National Mortgage Association ("Fannie Mae") and Federal Home Loan Mortgage Corporation ("Freddie Mac"), each a government sponsored enterprise, or "GSE." The mortgage segment also includes GSE credit risk-sharing transactions and mortgage reinsurance for the U.S. and Australian markets.

The corporate (non-underwriting) segment results include net investment income, other income (loss), corporate expenses, interest expense, 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, income taxes and items related to the Company's non-cumulative preferred shares. Such amounts exclude the results of the 'other' segment.

The 'other' segment includes the results of Watford Re (see Note 3). 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.

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 common shareholders:

	Three Months Ended June 30, 2016					
	Insurance	Reinsurance	Mortgage	Sub-Total	Other	Total
Gross premiums written (1)	$762,043	$412,053	$118,434	$1,292,199	$109,285	$1,329,936
Premiums ceded	(246,875)	(119,951)	(6,969)	(373,464)	(4,457)	(306,373)
Net premiums written	515,168	292,102	111,465	918,735	104,828	1,023,563
Change in unearned premiums	12,482	(846)	(44,953)	(33,317)	15,739	(17,578)
Net premiums earned	527,650	291,256	66,512	885,418	120,567	1,005,985
Other underwriting income	—	20,118	4,137	24,255	969	25,224
Losses and loss adjustment expenses	(354,633)	(146,091)	(366)	(501,090)	(83,502)	(584,592)
Acquisition expenses, net	(77,317)	(55,796)	(8,523)	(141,636)	(33,645)	(175,281)
Other operating expenses	(92,371)	(37,115)	(23,991)	(153,477)	(6,113)	(159,590)
Underwriting income (loss)	$3,329	$72,372	$37,769	113,470	(1,724)	111,746
Net investment income				70,397	17,941	88,338
Net realized gains (losses)				40,927	27,291	68,218
Net impairment losses recognized in earnings				(5,343)	—	(5,343)
Equity in net income (loss) of investment funds accounted for using the equity method				8,737	—	8,737
Other income (loss)				(7)	—	(7)
Corporate expenses				(17,200)	—	(17,200)
Interest expense				(12,432)	(3,231)	(15,663)
Net foreign exchange gains (losses)				22,461	2,201	24,662
Income (loss) before income taxes				221,010	42,478	263,488
Income tax expense				(14,131)	—	(14,131)
Net income (loss)				206,879	42,478	249,357
Dividends attributable to redeemable noncontrolling interests				—	(4,586)	(4,586)
Amounts attributable to noncontrolling interests				—	(33,716)	(33,716)
Net income (loss) available to Arch				206,879	4,176	211,055
Preferred dividends				(5,485)	—	(5,485)
Net income (loss) available to Arch common shareholders				$201,394	$4,176	$205,570
Underwriting Ratios						
Loss ratio	67.2%	50.2%	0.6%	56.6%	69.3%	58.1%
Acquisition expense ratio	14.7%	19.2%	12.8%	16.0%	27.9%	17.4%
Other operating expense ratio	17.5%	12.7%	36.1%	17.3%	5.1%	15.9%
Combined ratio	99.4%	82.1%	49.5%	89.9%	102.3%	91.4%
Goodwill and intangible assets	$27,457	$1,440	$59,430	$88,327	$—	$88,327

(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.

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	Three Months Ended June 30, 2015					
	Insurance	Reinsurance	Mortgage	Sub-Total	Other	Total
Gross premiums written (1)	$744,810	$342,101	$68,572	$1,155,253	$127,954	$1,199,209
Premiums ceded	(235,743)	(89,446)	(6,902)	(331,861)	(7,766)	(255,629)
Net premiums written	509,067	252,655	61,670	823,392	120,188	943,580
Change in unearned premiums	758	21,310	(9,211)	12,857	(12,999)	(142)
Net premiums earned	509,825	273,965	52,459	836,249	107,189	943,438
Other underwriting income	521	2,658	3,686	6,865	852	7,717
Losses and loss adjustment expenses	(320,926)	(111,183)	(9,639)	(441,748)	(77,678)	(519,426)
Acquisition expenses, net	(76,723)	(58,360)	(10,200)	(145,283)	(30,142)	(175,425)
Other operating expenses	(89,054)	(39,007)	(19,679)	(147,740)	(3,450)	(151,190)
Underwriting income (loss)	$23,643	$68,073	$16,627	108,343	(3,229)	105,114
Net investment income				67,171	19,792	86,963
Net realized gains (losses)				(26,860)	(8,865)	(35,725)
Net impairment losses recognized in earnings				(1,113)	—	(1,113)
Equity in net income (loss) of investment funds accounted for using the equity method				16,167	—	16,167
Other income (loss)				2,205	—	2,205
Corporate expenses				(17,418)	—	(17,418)
Interest expense				(4,011)	—	(4,011)
Net foreign exchange gains (losses)				(22,571)	2,988	(19,583)
Income (loss) before income taxes				121,913	10,686	132,599
Income tax expense				(6,780)	—	(6,780)
Net income (loss)				115,133	10,686	125,819
Dividends attributable to redeemable noncontrolling interests				—	(4,743)	(4,743)
Amounts attributable to noncontrolling interests				—	(5,286)	(5,286)
Net income (loss) available to Arch				115,133	657	115,790
Preferred dividends				(5,485)	—	(5,485)
Net income (loss) available to Arch common shareholders				$109,648	$657	$110,305
Underwriting Ratios						
Loss ratio	62.9 %	40.6 %	18.4 %	52.8 %	72.5 %	55.1 %
Acquisition expense ratio	15.0 %	21.3 %	19.4 %	17.4 %	28.1 %	18.6 %
Other operating expense ratio	17.5 %	14.2 %	37.5 %	17.7 %	3.2 %	16.0 %
Combined ratio	95.4 %	76.1 %	75.3 %	87.9 %	103.8 %	89.7 %
Goodwill and intangible assets	$30,968	$2,420	$69,130	$102,518	$—	$102,518

(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.

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	Six Months Ended June 30, 2016					
	Insurance	Reinsurance	Mortgage	Sub-Total	Other	Total
Gross premiums written (1)	$1,560,596	$893,443	$229,714	$2,683,260	$257,891	$2,767,902
Premiums ceded	(495,664)	(280,517)	(11,736)	(787,424)	(8,929)	(623,104)
Net premiums written	1,064,932	612,926	217,978	1,895,836	248,962	2,144,798
Change in unearned premiums	(24,193)	(60,462)	(89,701)	(174,356)	(12,878)	(187,234)
Net premiums earned	1,040,739	552,464	128,277	1,721,480	236,084	1,957,564
Other underwriting income	—	20,443	7,930	28,373	1,898	30,271
Losses and loss adjustment expenses	(678,242)	(257,689)	(8,995)	(944,926)	(162,615)	(1,107,541)
Acquisition expenses, net	(151,671)	(110,583)	(16,908)	(279,162)	(66,584)	(345,746)
Other operating expenses	(178,232)	(73,570)	(48,606)	(300,408)	(11,451)	(311,859)
Underwriting income (loss)	$32,594	$131,065	$61,698	225,357	(2,668)	222,689
Net investment income				140,806	41,267	182,073
Net realized gains (losses)				72,789	32,753	105,542
Net impairment losses recognized in earnings				(12,982)	—	(12,982)
Equity in net income (loss) of investment funds accounted for using the equity method				15,392	—	15,392
Other income (loss)				(32)	—	(32)
Corporate expenses				(26,583)	—	(26,583)
Interest expense				(25,059)	(6,711)	(31,770)
Net foreign exchange gains (losses)				420	676	1,096
Income (loss) before income taxes				390,108	65,317	455,425
Income tax expense				(30,441)	—	(30,441)
Net income (loss)				359,667	65,317	424,984
Dividends attributable to redeemable noncontrolling interests				—	(9,173)	(9,173)
Amounts attributable to noncontrolling interests				—	(49,958)	(49,958)
Net income (loss) available to Arch				359,667	6,186	365,853
Preferred dividends				(10,969)	—	(10,969)
Net income (loss) available to Arch common shareholders				$348,698	$6,186	$354,884
Underwriting Ratios						
Loss ratio	65.2 %	46.6 %	7.0 %	54.9 %	68.9 %	56.6 %
Acquisition expense ratio	14.6 %	20.0 %	13.2 %	16.2 %	28.2 %	17.7 %
Other operating expense ratio	17.1 %	13.3 %	37.9 %	17.5 %	4.9 %	15.9 %
Combined ratio	96.9 %	79.9 %	58.1 %	88.6 %	102.0 %	90.2 %

(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.

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	Six Months Ended June 30, 2015					
	Insurance	Reinsurance	Mortgage	Sub-Total	Other	Total
Gross premiums written (1)	$1,510,963	$827,213	$129,113	$2,466,931	$256,587	$2,541,231
Premiums ceded	(459,893)	(226,015)	(15,572)	(701,122)	(11,821)	(530,656)
Net premiums written	1,051,070	601,198	113,541	1,765,809	244,766	2,010,575
Change in unearned premiums	(33,331)	(47,516)	(10,715)	(91,562)	(65,311)	(156,873)
Net premiums earned	1,017,739	553,682	102,826	1,674,247	179,455	1,853,702
Other underwriting income	948	4,087	11,404	16,439	2,814	19,253
Losses and loss adjustment expenses	(638,822)	(223,715)	(23,448)	(885,985)	(127,157)	(1,013,142)
Acquisition expenses, net	(151,801)	(114,964)	(20,618)	(287,383)	(51,118)	(338,501)
Other operating expenses	(177,173)	(77,051)	(40,048)	(294,272)	(5,455)	(299,727)
Underwriting income	$50,891	$142,039	$30,116	223,046	(1,461)	221,585
Net investment income				137,459	28,498	165,957
Net realized gains				38,649	8,974	47,623
Net impairment losses recognized in earnings				(6,912)	—	(6,912)
Equity in net income (loss) of investment funds accounted for using the equity method				22,056	—	22,056
Other income (loss)				317	—	317
Corporate expenses				(26,763)	—	(26,763)
Interest expense				(16,747)	—	(16,747)
Net foreign exchange gains (losses)				44,282	2,636	46,918
Income (loss) before income taxes				415,387	38,647	454,034
Income tax expense				(19,458)	—	(19,458)
Net income (loss)				395,929	38,647	434,576
Dividends attributable to redeemable noncontrolling interests				—	(9,651)	(9,651)
Amounts attributable to noncontrolling interests				—	(25,799)	(25,799)
Net income (loss) available to Arch				395,929	3,197	399,126
Preferred dividends				(10,969)	—	(10,969)
Net income (loss) available to Arch common shareholders				$384,960	$3,197	$388,157
Underwriting Ratios						
Loss ratio	62.8 %	40.4 %	22.8 %	52.9 %	70.9 %	54.7 %
Acquisition expense ratio	14.9 %	20.8 %	20.1 %	17.2 %	28.5 %	18.3 %
Other operating expense ratio	17.4 %	13.9 %	38.9 %	17.6 %	3.0 %	16.2 %
Combined ratio	95.1 %	75.1 %	81.8 %	87.7 %	102.4 %	89.2 %

(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.

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6. Investment Information

At June 30, 2016, total investable assets of $16.88 billion included $15.18 billion managed by the Company and $1.70 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 investments classified as available for sale:

	Estimated Fair Value	Gross Unrealized Gains	Gross Unrealized Losses	Cost or Amortized Cost	OTTI Unrealized Losses (2)
June 30, 2016					
Fixed maturities (1):					
Corporate bonds	$2,952,173	$68,437	$(17,635)	$2,901,371	$(2,304)
Mortgage backed securities	656,891	12,973	(1,177)	645,095	(3,443)
Municipal bonds	1,897,128	47,135	(678)	1,850,671	—
Commercial mortgage backed securities	624,391	13,854	(1,004)	611,541	—
U.S. government and government agencies	2,701,042	33,940	(749)	2,667,851	—
Non-U.S. government securities	1,172,745	46,672	(37,074)	1,163,147	—
Asset backed securities	1,365,766	13,492	(5,413)	1,357,687	(69)
Total	11,370,136	236,503	(63,730)	11,197,363	(5,816)
Equity securities	501,916	87,768	(11,163)	425,311	—
Other investments	182,957	19,550	(4,507)	167,914	—
Short-term investments	853,531	351	(2,584)	855,764	—
Total	$12,908,540	$344,172	$(81,984)	$12,646,352	$(5,816)
December 31, 2015					
Fixed maturities (1):					
Corporate bonds	$2,725,729	$15,978	$(60,508)	$2,770,259	$(3,553)
Mortgage backed securities	754,870	9,872	(5,334)	750,332	(3,350)
Municipal bonds	1,626,281	27,014	(1,534)	1,600,801	—
Commercial mortgage backed securities	764,152	3,269	(6,978)	767,861	—
U.S. government and government agencies	2,423,455	6,228	(9,978)	2,427,205	—
Non-U.S. government securities	917,664	10,414	(39,122)	946,372	—
Asset backed securities	1,620,506	3,307	(12,951)	1,630,150	(22)
Total	10,832,657	76,082	(136,405)	10,892,980	(6,925)
Equity securities	629,182	94,341	(17,796)	552,637	—
Other investments	300,476	43,798	(4,665)	261,343	—
Short-term investments	587,904	187	(3,425)	591,142	—
Total	$12,350,219	$214,408	$(162,291)	$12,298,102	$(6,925)

(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."

(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, 2016, the net unrealized gain related to securities for which a non-credit OTTI was recognized in AOCI

was $1.5 million, compared to a net unrealized loss of $1.4 million at December 31, 2015.

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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, 2016						
Fixed maturities (1):						
Corporate bonds	$197,372	$(4,776)	$127,233	$(12,859)	$324,605	$(17,635)
Mortgage backed securities	67,489	(760)	16,999	(417)	84,488	(1,177)
Municipal bonds	109,185	(277)	21,887	(401)	131,072	(678)
Commercial mortgage backed securities	29,312	(526)	29,192	(478)	58,504	(1,004)
U.S. government and government agencies	112,776	(749)	—	—	112,776	(749)
Non-U.S. government securities	299,048	(15,856)	137,035	(21,218)	436,083	(37,074)
Asset backed securities	182,387	(3,147)	79,147	(2,266)	261,534	(5,413)
Total	997,569	(26,091)	411,493	(37,639)	1,409,062	(63,730)
Equity securities	156,789	(11,163)	—	—	156,789	(11,163)
Other investments	37,943	(4,507)	—	—	37,943	(4,507)
Short-term investments	33,404	(2,584)	—	—	33,404	(2,584)
Total	$1,225,705	$(44,345)	$411,493	$(37,639)	$1,637,198	$(81,984)
December 31, 2015						
Fixed maturities (1):						
Corporate bonds	$1,810,988	$(37,445)	$129,896	$(23,063)	$1,940,884	$(60,508)
Mortgage backed securities	487,018	(4,508)	48,991	(826)	536,009	(5,334)
Municipal bonds	269,015	(1,303)	9,692	(231)	278,707	(1,534)
Commercial mortgage backed securities	511,261	(6,639)	20,596	(339)	531,857	(6,978)
U.S. government and government agencies	1,991,163	(9,978)	—	—	1,991,163	(9,978)
Non-U.S. government securities	458,414	(13,494)	138,792	(25,628)	597,206	(39,122)
Asset backed securities	1,217,163	(9,328)	134,841	(3,623)	1,352,004	(12,951)
Total	6,745,022	(82,695)	482,808	(53,710)	7,227,830	(136,405)
Equity securities	232,275	(17,796)	—	—	232,275	(17,796)
Other investments	93,614	(4,665)	—	—	93,614	(4,665)
Short-term investments	30,625	(3,425)	—	—	30,625	(3,425)
Total	$7,101,536	$(108,581)	$482,808	$(53,710)	$7,584,344	$(162,291)

(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."

At June 30, 2016, on a lot level basis, approximately 1,410 security lots out of a total of approximately 6,280 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 $3.4 million. At December 31, 2015, on a lot level basis, approximately 3,560 security lots out of a total of approximately 5,550 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 $3.1 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.

Maturity	June 30, 2016 Estimated Fair Value	June 30, 2016 Amortized Cost	December 31, 2015 Estimated Fair Value	December 31, 2015 Amortized Cost
Due in one year or less	$247,256	$244,247	$337,898	$341,595
Due after one year through five years	5,077,739	5,036,912	4,644,516	4,677,230
Due after five years through 10 years	2,772,938	2,699,463	2,214,413	2,228,638
Due after 10 years	625,155	602,418	496,302	497,174
	8,723,088	8,583,040	7,693,129	7,744,637
Mortgage backed securities	656,891	645,095	754,870	750,332
Commercial mortgage backed securities	624,391	611,541	764,152	767,861
Asset backed securities	1,365,766	1,357,687	1,620,506	1,630,150
Total (1)	$11,370,136	$11,197,363	$10,832,657	$10,892,980

(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 to the Company.

The Company receives collateral in the form of cash or securities. Cash collateral primarily consists of short-term investments. At June 30, 2016, the fair value of the cash collateral received on securities lending was $75.9 million and the fair value of security collateral received was $262.4 million. At December 31, 2015, the fair value of the cash collateral received on securities lending was $52.7 million, which included $3.0 million that was reinvested in sub-prime mortgage backed securities, and the fair value of security collateral received was $336.7 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, 2016					
U.S. government and government agencies	$242,184	$21,539	$4,109	$26,168	$294,000
Corporate bonds	33,120	—	—	—	33,120
Equity securities	11,198	—	—	—	11,198
Total	$286,502	$21,539	$4,109	$26,168	$338,318
Gross amount of recognized liabilities for securities lending in offsetting disclosure in Note 8					$—

Amounts related to securities lending not included in offsetting disclosure in Note 8					$338,318
December 31, 2015					
U.S. government and government agencies	$235,728	$—	$82,286	$9,598	$327,612
Corporate bonds	55,086	—	—	—	55,086
Equity securities	6,722	4,424	—	—	11,146
Total	$297,536	$4,424	$82,286	$9,598	$393,844
Gross amount of recognized liabilities for securities lending in offsetting disclosure in Note 8					$—
Amounts related to securities lending not included in offsetting disclosure in Note 8					$393,844

Other Investments

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

	June 30, 2016	December 31, 2015
Available for sale:		
Asian and emerging markets	$109,767	$ 206,861
Investment grade fixed income	33,549	31,370
Credit related funds	1,698	22,512
Other	37,943	39,733
Total available for sale	182,957	300,476
Fair value option:		
Term loan investments (par value: $1,115,627 and $1,197,143)	1,026,543	1,108,017
Mezzanine debt funds	117,441	121,589
Credit related funds	236,184	219,049
Investment grade fixed income	65,391	63,053
Asian and emerging markets	112,265	34,761
Other (1)	107,916	124,502
Total fair value option	1,665,740	1,670,971
Total	$1,848,697	$ 1,971,447

(1) Includes fund investments with strategies in mortgage servicing rights, transportation, infrastructure 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, 2016	December 31, 2015
Fixed maturities	$1,047,662	$ 936,802
Other investments	1,665,740	1,670,971
Short-term investments	344,797	285,923
Equity securities	7,830	798
Investments accounted for using the fair value option	$3,066,029	$ 2,894,494

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.' Based on the new accounting guidance for consolidation, the Company determined that these limited partnership interests represented variable interests in the funds because the general partner did not have a significant interest in the fund. 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, 2016	December 31, 2015
Investments accounted for using the equity method (1)	$676,893	$ 584,158
Investments accounted for using the fair value option (2)	83,931	90,969
Total	$760,824	$ 675,127

(1) Aggregate unfunded commitments were $794.7 million at June 30, 2016, compared to $535.4 million at December 31, 2015.

(2) Aggregate unfunded commitments were $26.6 million at June 30, 2016, compared to $22.7 million at December 31, 2015.

Net Investment Income

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

	June 30, 2016	2015
Three Months Ended		
Fixed maturities	$77,994	$71,275
Term loan investments	18,608	18,033
Equity securities (dividends)	3,663	2,578
Short-term investments	816	225
Other (1)	8,260	10,489
Gross investment income	109,341	102,600
Investment expenses	(21,003)	(15,637)
Net investment income	$88,338	$86,963
Six Months Ended		
Fixed maturities	$151,667	$139,871
Term loan investments	38,620	32,777
Equity securities (dividends)	7,098	5,257
Short-term investments	1,312	421
Other (1)	22,003	23,236
Gross investment income	220,700	201,562
Investment expenses	(38,627)	(35,605)
Net investment income	$182,073	$165,957

(1) Includes income distributions from investment funds and other items.

Net Realized Gains (Losses)

Net realized gains (losses) were as follows, excluding other than-temporary impairment provision.

	June 30, 2016	2015
Three Months Ended		
Available for sale securities:		
Gross gains on investment sales	$74,695	$82,233
Gross losses on investment sales	(43,293)	(58,974)
Change in fair value of assets and liabilities accounted for using the fair value option:		
Fixed maturities	18,632	(5,191)
Other investments	13,136	785
Equity securities	401	(69)
Short-term investments	(621)	(4,375)
Derivative instruments (1)	20,334	(41,496)
Other (2)	(15,066)	(8,638)
Net realized gains (losses)	$68,218	$(35,725)
Six Months Ended		
Available for sale securities:		
Gross gains on investment sales	$182,514	$179,824
Gross losses on investment sales	(106,424)	(114,134)
Change in fair value of assets and liabilities accounted for using the fair value option:		
Fixed maturities	18,299	(8,493)

Other investments	(8,412)	7,072
Equity securities	437	(71)
Short-term investments	(1,043)	1,471
Derivative instruments (1)	41,066	(4,820)
Other (2)	(20,895)	(13,226)
Net realized gains (losses)	$105,542	$47,623

(1) See Note 8 for information on the Company's derivative instruments.
(2) Includes the re-measurement of contingent consideration liability amounts.

Equity in Net Income (Loss) of Investment Funds Accounted for Using the Equity Method

The Company recorded $8.7 million of equity in net income related to investment funds accounted for using the equity method in the 2016 second quarter, compared to $16.2 million of equity in net income for the 2015 second quarter, and $15.4 million of equity in net income related to investment funds accounted for using the equity method for the six months ended June 30, 2016, compared to $22.1 million of equity in net income for the 2015 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.

Other-Than-Temporary Impairments

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,	
	2016	2015
Three Months Ended		
Fixed maturities:		
Mortgage backed securities	$(82)	$(326)
Corporate bonds	(775)	(10)
Non-U.S. government securities	(51)	—
Asset backed securities	(2,500)	—
Total	(3,408)	(336)
Short-term investments	—	—
Equity securities	(1,935)	(124)
Other investments	—	(653)
Net impairment losses recognized in earnings	$(5,343)	$(1,113)
Six Months Ended		
Fixed maturities:		
Mortgage backed securities	$(555)	$(1,398)
Corporate bonds	(5,655)	(1,986)
Non-U.S. government securities	(232)	—
Asset backed securities	(2,506)	—
Total	(8,948)	(3,384)
Short-term investments	—	(2,341)
Equity securities	(3,037)	(253)
Other investments	(997)	(934)
Net impairment losses recognized in earnings	$(12,982)	$(6,912)

A description of the methodology and significant inputs used to measure the amount of net impairment losses recognized in earnings in the 2016 periods is as follows:

- Corporate bonds — the Company reviewed the business prospects, credit ratings, estimated loss given default factors, foreign currency impacts and information received from asset managers and rating agencies for certain corporate bonds. Impairment losses primarily resulted from reductions on non-investment grade corporate bonds in the energy sector, reflecting current market conditions;

- Equity securities — the Company utilized information received from asset managers on common stocks, including the business prospects, recent events, industry and market data and other factors. Impairment losses were primarily on equities which were in an unrealized loss position for a significant length of time;

- Asset backed securities — the Company utilized underlying data provided by asset managers, cash flow projections and additional information from credit agencies in order to determine an expected recovery value for each security. Impairment losses primarily reflected a reduction on one security following an analysis of expected cash flows.

- Other investments — the Company utilized information received from asset managers on investment funds, including the business prospects, recent events, industry and market data and other factors. Impairment losses reflected a reduction on one fund which was in an unrealized loss position for a significant length of time;

- Mortgage backed securities — the Company utilized underlying data provided by asset managers, cash flow projections and additional information from credit agencies in order to determine an expected recovery value for each security. The analysis includes a review of cash flow projections under base case and stress case scenarios which modify the expected default expectations and loss severities and slow down prepayment assumptions. The significant inputs in the models include the expected default rates, delinquency rates and foreclosure costs. Impairment losses resulted from relatively small adjustments on a number of mortgage backed securities.

The Company believes that the $5.8 million of OTTI included in accumulated other comprehensive income at June 30, 2016 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, 2016, 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,	
	2016	2015
Three Months Ended		
Balance at start of period	$18,291	$24,344
Credit loss impairments recognized on securities not previously impaired	287	281
Credit loss impairments recognized on securities previously impaired	—	55
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	(3,731)	(3,774)
Balance at end of period	$14,847	$20,906

Six Months Ended

Balance at start of year	$26,875	$20,196
Credit loss impairments recognized on securities not previously impaired	1,350	4,770
Credit loss impairments recognized on securities previously impaired	522	134
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	(13,900)	(4,194)
Balance at end of period	$14,847	$20,906

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 9 for further details.

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

	June 30, 2016	December 31, 2015
Assets used for collateral or guarantees:		
Affiliated transactions	$3,903,933	$ 3,810,104
Third party agreements	1,598,266	1,286,257
Deposits with U.S. regulatory authorities	477,429	391,458
Deposits with non-U.S. regulatory authorities	47,429	38,230
Total restricted assets	$6,027,057	$ 5,526,049

7. 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, 2016.
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 $16.20 billion of financial assets and liabilities measured at fair value at June 30, 2016, approximately $379.5 million, or 2.4%, were priced using non-binding broker-dealer quotes. Of the $15.40 billion of financial assets and liabilities measured at fair value at December 31, 2015, approximately $317.8 million, or 2.1%, 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.

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.
- 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.
- 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.
- 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.

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.

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 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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ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
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The following table presents the Company’s financial assets and liabilities measured at fair value by level at June 30, 2016:

	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	$2,952,173	$—	$2,934,868	$ 17,305
Mortgage backed securities	656,891	—	656,891	—
Municipal bonds	1,897,128	—	1,897,128	—
Commercial mortgage backed securities	624,391	—	624,391	—
U.S. government and government agencies	2,701,042	2,558,706	142,336	—
Non-U.S. government securities	1,172,745	—	1,172,745	—
Asset backed securities	1,365,766	—	1,316,555	49,211
Total	11,370,136	2,558,706	8,744,914	66,516
Equity securities	501,916	500,158	1,758	—
Short-term investments	853,531	837,202	16,329	—
Other investments	79,174	79,174	—	—
Other investments measured at net asset value (2)	103,783			
Total other investments	182,957	79,174	—	—
Derivative instruments (4)	30,625	—	30,625	—
Fair value option:				
Corporate bonds	754,034	—	754,034	—
Non-U.S. government bonds	101,492	—	101,492	—
Mortgage backed securities	17,560	—	17,560	—
Asset backed securities	22,850	—	22,850	—
U.S. government and government agencies	151,726	151,726	—	—
Short-term investments	344,797	344,797	—	—
Equity securities	7,830	7,090	740	—
Other investments	1,082,309	55,766	1,026,543	—
Other investments measured at net asset value (2)	583,431			
Total	3,066,029	559,379	1,923,219	—
Total assets measured at fair value	$16,005,194	$4,534,619	$10,716,845	$ 66,516
Liabilities measured at fair value:				
Contingent consideration liabilities	$(111,670)	$—	$—	$ (111,670)

Securities sold but not yet purchased (3)	(54,668)	—	(54,668)	—
Derivative instruments (4)	(26,428)	—	(26,428)	—
Total liabilities measured at fair value	$(192,766)	$—	$(81,096)	$(111,670)

(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 6, “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 8, “Derivative Instruments.”

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES
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The following table presents the Company's financial assets and liabilities measured at fair value by level at December 31, 2015:

		Estimated Fair Value Measurements Using:		
	Estimated Fair Value	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	$2,725,729	$—	$2,709,361	$ 16,368
Mortgage backed securities	754,870	—	754,870	—
Municipal bonds	1,626,281	—	1,626,281	—
Commercial mortgage backed securities	764,152	—	764,152	—
U.S. government and government agencies	2,423,455	2,378,662	44,793	—
Non-U.S. government securities	917,664	—	917,664	—
Asset backed securities	1,620,506	—	1,563,006	57,500
Total	10,832,657	2,378,662	8,380,127	73,868
Equity securities	629,182	627,441	1,741	—
Short-term investments	587,904	572,604	15,300	—
Other investments	99,159	99,159	—	—
Other investments measured at net asset value (2)	201,317			
Total other investments	300,476	99,159	—	—
Derivative instruments (4)	20,022	—	20,022	—
Fair value option:				
Corporate bonds	771,733	—	771,733	—
Non-U.S. government bonds	81,824	—	81,824	—
Mortgage backed securities	57,687	—	57,687	—
Asset backed securities	25,444	—	25,444	—
U.S. government and government agencies	114	114	—	—
Short-term investments	285,923	285,923	—	—
Equity securities	798	798	—	—
Other investments	1,176,312	68,295	1,108,017	—
Other investments measured at net asset value (2)	494,659			
Total	2,894,494	355,130	2,044,705	—
Total assets measured at fair value	$15,264,735	$4,032,996	$10,461,895	$ 73,868
Liabilities measured at fair value:				
Contingent consideration liabilities	$(96,048)	$—	$—	$ (96,048)

Securities sold but not yet purchased (3)	(30,583)	—	(30,583)	—
Derivative instruments (4)	(11,863)	—	(11,863)	—
Total liabilities measured at fair value	$(138,494)	$—	$(42,446)	$ (96,048)

(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 6, “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 8, “Derivative Instruments.”

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:

s	Assets			Liabilities
	Available For Sale	Fair Value Option		
	Asset Backed Securities	Corporate Bonds	Total	Contingent Consideration Liabilities
Three Months Ended June 30, 2016				
Balance at beginning of period	$57,500	$ 15,166	$72,666	$ (100,710)
Total gains or (losses) (realized/unrealized)				
Included in earnings (1)	(2,500)	1,363	(1,137)	(10,923)
Included in other comprehensive income	—	—	—	(37)
Purchases, issuances, sales and settlements				
Purchases	—	776	776	—
Issuances	—	—	—	—
Sales	—	—	—	—
Settlements	(5,789)	—	(5,789)	—
Transfers in and/or out of Level 3	—	—	—	—
Balance at end of period	$49,211	$ 17,305	$66,516	$ (111,670)
Three Months Ended June 30, 2015				
Balance at beginning of period	$57,500	$ —	$57,500	$ (66,461)
Total gains or (losses) (realized/unrealized)				
Included in earnings (1)	—	—	—	(4,795)
Included in other comprehensive income	—	—	—	—
Purchases, issuances, sales and settlements				
Purchases	—	—	—	—
Issuances	—	—	—	—
Sales	—	—	—	—
Settlements	—	—	—	—
Transfers in and/or out of Level 3	—	—	—	—
Balance at end of period	$57,500	$ —	$57,500	$ (71,256)
Six Months Ended June 30, 2016				
Balance at beginning of year	$57,500	$ 16,368	$73,868	$ (96,048)
Total gains or (losses) (realized/unrealized)				
Included in earnings (1)	(2,500)	161	(2,339)	(16,121)
Included in other comprehensive income	—	—	—	(37)
Purchases, issuances, sales and settlements				
Purchases	—	776	776	—
Issuances	—	—	—	—
Sales	—	—	—	—
Settlements	(5,789)	—	(5,789)	536
Transfers in and/or out of Level 3	—	—	—	—
Balance at end of period	$49,211	$ 17,305	$66,516	$ (111,670)

Six Months Ended June 30, 2015					
Balance at beginning of year	$57,500	$—	$57,500	$ (61,845	)
Total gains or (losses) (realized/unrealized)					
Included in earnings (1)	—	—	—	(8,343	)
Included in other comprehensive income	—	—	—	—	
Purchases, issuances, sales and settlements					
Purchases	—	—	—	—	
Issuances	—	—	—	(1,068	)
Sales	—	—	—	—	
Settlements	—	—	—	—	
Transfers in and/or out of Level 3	—	—	—	—	
Balance at end of period	$57,500	$—	$57,500	$ (71,256	)

(1) Gains or losses on asset backed securities were included in net impairment losses recognized in earnings while gains or losses on corporate bonds and contingent consideration liabilities 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, 2016, 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, 2016, the senior notes of ACGL were carried at their cost, net of debt issuance costs, of $296.9 million and had a fair value of $428.0 million while the senior notes of Arch-U.S. were carried at their cost, net of debt issuance costs, of $494.5 million and had a fair value of $602.8 million. 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 value of the senior notes is classified within Level 2.

8. 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, 2016			
Futures contracts (2)	$1,208	$(1,673)	$2,287,791
Foreign currency forward contracts (2)	17,032	(18,718)	1,436,006
TBAs (3)	121,760	(117,673)	226,299
Other (2)	12,385	(6,037)	1,938,497
Total	$152,385	$(144,101)	
December 31, 2015			
Futures contracts (2)	$2,816	$(1,202)	$1,797,115
Foreign currency forward contracts (2)	9,336	(6,344)	773,619
TBAs (3)	6,525	—	6,316
Other (2)	7,870	(4,317)	1,694,935
Total	$26,547	$(11,863)	

(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, 2016 or December 31, 2015.

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.

At June 30, 2016, asset derivatives and liability derivatives of $152.2 million and $144.0 million, respectively, were subject to a master netting agreement, compared to $26.5 million and $11.9 million, respectively, at December 31, 2015. The remaining derivatives included in the preceding table were not subject to a master netting agreement.

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All 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, 2016	2015
Three Months Ended		
Net realized gains (losses):		
Futures contracts	$34,871	$(31,446)
Foreign currency forward contracts	(13,782)	(8,724)
TBAs	37	(182)
Other	(792)	(1,144)
Total	$20,334	$(41,496)
Six Months Ended		
Net realized gains (losses):		
Futures contracts	$61,322	$(12,120)
Foreign currency forward contracts	(18,534)	8,095
TBAs	334	304
Other	(2,056)	(1,099)
Total	$41,066	$(4,820)

9. Commitments and Contingencies

Letter of Credit and Revolving Credit Facilities

As of June 30, 2016, ACGL and its wholly-owned subsidiaries had a $300.0 million unsecured revolving loan and letter of credit facility and a $500.0 million secured letter of credit facility (the "Credit Agreement"). Under the terms of the Credit Agreement, Arch Reinsurance Company and Arch Reinsurance Ltd. are limited to issuing an aggregate of $100.0 million of unsecured letters of credit as part of the unsecured revolving loan. The Credit Agreement expires on June 30, 2019. In addition, certain of ACGL's subsidiaries had outstanding letters of credit of $242.4 million as of June 30, 2016, which were issued on a limited basis and for limited purposes (together with the secured portion of the Credit Agreement and these letter of credit facilities, the "LOC Facilities"). ACGL and its' subsidiaries which are party to the LOC Facilities were in compliance with all covenants contained in the LOC Facilities at June 30, 2016. At such date, $416.9 million in letters of credit under the LOC Facilities were outstanding, which were secured by investments with a fair value of $473.9 million, and had $100.0 million of borrowings outstanding under the Credit Agreement. Under the $500.0 million secured letter of credit facility, ACGL's subsidiaries had remaining capacity of $325.4 million (outstanding letters of credit of $174.6 million) at June 30, 2016.

As of June 30, 2016, Watford Re had a $100.0 million letter of credit facility expiring on May 19, 2017 and an $800.0 million secured credit facility expiring on June 4, 2018, that provides for borrowings and the issuance of letters of credit not to exceed $400.0 million. Borrowings of revolving loans

may be made by Watford Re at a variable rate based on LIBOR or an alternative base rate at the option of Watford Re. At June 30, 2016, Watford Re had $198.0 million in outstanding letters of credit under the two facilities and $297.8 million of borrowings outstanding under the secured credit facility, backed by Watford Re's investment portfolio. Watford Re was in compliance with all covenants contained in both of its credit facilities at June 30, 2016. 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 the reinsurance transactions.

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 $1.35 billion at June 30, 2016, compared to $1.11 billion at December 31, 2015.

10. Share Transactions

Share Repurchases

The board of directors of ACGL has authorized the investment in ACGL's common shares through a share repurchase program. Since the inception of the share repurchase program, ACGL has repurchased approximately 125.2 million common shares for an aggregate purchase price of $3.68 billion. For the six months ended June 30, 2016, ACGL repurchased 1.1 million common shares (no repurchases in the 2016 second quarter) for an aggregate purchase price of $75.3 million. During the 2015 second quarter and six months ended June 30, 2015 ACGL repurchased 3.2 million and 5.9 million common shares, respectively, for an aggregate purchase price of $199.0 million and $361.9 million, respectively. At June 30, 2016, $446.5 million of share repurchases were available under the program. 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.

Share-Based Compensation

During the 2016 second quarter, the Company granted 427,379 stock options and 456,217 restricted shares and units to certain employees and directors with weighted average grant-date fair values of $17.46 and $71.61, respectively. During the 2015 second quarter, the Company granted 534,267 stock appreciation rights and stock options and 559,332 restricted shares and units to certain employees and directors with weighted average grant-date fair values of $16.09 and $62.51, respectively. The stock appreciation rights and 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 over the period from the grant date to the retirement eligibility date.

11. 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, 2016	2015	Six Months Ended June 30, 2016	2015
Unrealized appreciation on available-for-sale investments					
	Net realized gains (losses)	$31,404	$23,259	$76,091	$65,690
	Other-than-temporary impairment losses	(5,395)	(1,126)	(13,132)	(8,373)
	Total before tax	26,009	22,133	62,959	57,317
	Income tax (expense) benefit	(3,915)	(919)	(8,642)	(5,171)
	Net of tax	$22,094	$21,214	$54,317	$52,146

	Before Tax Amount	Tax Expense (Benefit)	Net of Tax Amount
Three Months Ended June 30, 2016			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during period	$117,904	$15,444	$102,460
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	(52)	—	(52)
Less reclassification of net realized gains (losses) included in net income	26,009	3,915	22,094
Foreign currency translation adjustments	(18,186)	(35)	(18,151)
Other comprehensive income (loss)	$73,657	$11,494	$62,163
Three Months Ended June 30, 2015			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during period	$(96,630)	$(14,695)	$(81,935)
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	(13)	—	(13)
Less reclassification of net realized gains (losses) included in net income	22,133	919	21,214
Foreign currency translation adjustments	11,697	117	11,580
Other comprehensive income (loss)	$(107,079)	$(15,497)	$(91,582)
Six Months Ended June 30, 2016			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during period	$270,078	$34,637	$235,441

Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	(150)	—	(150)
Less reclassification of net realized gains (losses) included in net income	62,959	8,642	54,317
Foreign currency translation adjustments	(326)	512	(838)
Other comprehensive income (loss)	$206,643	$26,507	$180,136
Six Months Ended June 30, 2015			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during period	$(2,243)	$(4,612)	$2,369
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss)	(1,461)	—	(1,461)
Less reclassification of net realized gains (losses) included in net income	57,317	5,171	52,146
Foreign currency translation adjustments	(11,929)	(752)	(11,177)
Other comprehensive income (loss)	$(72,950)	$(10,535)	$(62,415)

12. Guarantor Financial Information

The following tables present condensed financial information for ACGL, Arch Capital Group (U.S.) Inc. (“Arch-U.S.”), a 100% owned subsidiary of ACGL, and ACGL’s other subsidiaries.

	June 30, 2016				
Condensed Consolidating Balance Sheet	ACGL (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other ACGL Subsidiaries	Consolidating Adjustments and Eliminations	ACGL Consolidated
Assets					
Total investments	$126	$54,433	$16,628,029	$(14,700)	$16,667,888
Cash	7,212	15,726	493,653	—	516,591
Investments in subsidiaries	7,092,328	1,802,240	—	(8,894,568)	—
Due from subsidiaries and affiliates	27	50,563	388,302	(438,892)	—
Premiums receivable	—	—	1,775,867	(515,260)	1,260,607
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses	—	—	5,993,929	(3,958,959)	2,034,970
Contractholder receivables	—	—	1,600,426	—	1,600,426
Prepaid reinsurance premiums	—	—	1,690,278	(1,149,324)	540,954
Deferred acquisition costs, net	—	—	462,906	—	462,906
Other assets	13,911	46,982	1,417,947	(151,265)	1,327,575
Total assets	$7,113,604	$1,969,944	$30,451,337	$(15,122,968)	$24,411,917
Liabilities					
Reserve for losses and loss adjustment expenses	$—	$—	$13,402,389	$(3,930,742)	$9,471,647
Unearned premiums	—	—	3,767,683	(1,149,324)	2,618,359
Reinsurance balances payable	—	—	811,247	(515,260)	295,987
Contractholder payables	—	—	1,600,426	—	1,600,426
Collateral held for insured obligations	—	—	261,228		261,228
Deposit accounting liabilities	—	—	22,325	—	22,325
Senior notes	296,914	494,478	—	—	791,392
Revolving credit agreement borrowings	100,000	—	297,830	—	397,830
Due to subsidiaries and affiliates	1	35,003	403,888	(438,892)	—
Other liabilities	12,767	48,023	1,373,538	(179,482)	1,254,846
Total liabilities	409,682	577,504	21,940,554	(6,213,700)	16,714,040
Redeemable noncontrolling interests	—	—	220,066	(14,700)	205,366
Shareholders’ Equity					
Total shareholders’ equity available to Arch	6,703,922	1,392,440	7,502,128	(8,894,568)	6,703,922
Non-redeemable noncontrolling interests	—	—	788,589	—	788,589
Total shareholders’ equity	6,703,922	1,392,440	8,290,717	(8,894,568)	7,492,511
Total liabilities, noncontrolling interests and shareholders’ equity	$7,113,604	$1,969,944	$30,451,337	$(15,122,968)	$24,411,917

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	December 31, 2015				
Condensed Consolidating Balance Sheet	ACGL (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other ACGL Subsidiaries	Consolidating Adjustments and Eliminations	ACGL Consolidated
Assets					
Total investments	$50	$42,210	$15,815,381	$(14,700)	$15,842,941
Cash	6,809	17,023	529,494	—	553,326
Investments in subsidiaries	6,609,174	1,712,757	—	(8,321,931)	—
Due from subsidiaries and affiliates	23	48,811	384,469	(433,303)	—
Premiums receivable	—	—	1,376,310	(392,867)	983,443
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses	—	—	5,783,452	(3,916,079)	1,867,373
Contractholder receivables	—	—	1,486,296	—	1,486,296
Prepaid reinsurance premiums	—	—	1,511,795	(1,084,186)	427,609
Deferred acquisition costs, net	—	—	433,477	—	433,477
Other assets	4,138	45,522	2,119,279	(586,134)	1,582,805
Total assets	$6,620,194	$1,866,323	$29,439,953	$(14,749,200)	$23,177,270
Liabilities					
Reserve for losses and loss adjustment expenses	$—	$—	$13,010,608	$(3,885,358)	$9,125,250
Unearned premiums	—	—	3,418,118	(1,084,186)	2,333,932
Reinsurance balances payable	—	—	603,586	(379,466)	224,120
Contractholder payables	—	—	1,486,296	—	1,486,296
Collateral held for insured obligations	—	—	248,982	—	248,982
Deposit accounting liabilities	—	—	463,507	(203,143)	260,364
Senior notes	296,874	494,432	—	—	791,306
Revolving credit agreement borrowings	100,000	—	430,434	—	530,434
Due to subsidiaries and affiliates	26	35,000	398,277	(433,303)	—
Other liabilities	18,413	50,890	1,385,500	(427,111)	1,027,692
Total liabilities	415,313	580,322	21,445,308	(6,412,567)	16,028,376
Redeemable noncontrolling interests	—	—	219,882	(14,700)	205,182
Shareholders’ Equity					
Total shareholders’ equity available to Arch	6,204,881	1,286,001	7,035,932	(8,321,933)	6,204,881
Non-redeemable noncontrolling interests	—	—	738,831	—	738,831
Total shareholders’ equity	6,204,881	1,286,001	7,774,763	(8,321,933)	6,943,712
Total liabilities, noncontrolling interests and shareholders’ equity	$6,620,194	$1,866,323	$29,439,953	$(14,749,200)	$23,177,270

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

	Three Months Ended June 30, 2016				
Condensed Consolidating Statement of Income and Comprehensive Income	ACGL (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other ACGL Subsidiaries	Consolidating Adjustments and Eliminations	ACGL Consolidated
Revenues					
Net premiums earned	$—	$ —	$ 1,005,985	$ —	$ 1,005,985
Net investment income	—	775	94,097	(6,534)	88,338
Net realized gains (losses)	—	—	68,218	—	68,218
Net impairment losses recognized in earnings	—	—	(5,343)	—	(5,343)
Other underwriting income	—	—	41,450	(16,226)	25,224
Equity in net income (loss) of investment funds accounted for using the equity method	—	—	8,737	—	8,737
Other income (loss)	(7)	—	—	—	(7)
Total revenues	(7)	775	1,213,144	(22,760)	1,191,152
Expenses					
Losses and loss adjustment expenses	—	—	584,592	—	584,592
Acquisition expenses	—	—	175,281	—	175,281
Other operating expenses	—	—	159,590	—	159,590
Corporate expenses	17,441	359	(600)	—	17,200
Interest expense	5,929	6,647	25,527	(22,440)	15,663
Net foreign exchange (gains) losses	—	—	(14,125)	(10,537)	(24,662)

Total expenses	23,370	7,006	930,265	(32,977)	927,664
Income (loss) before income taxes	(23,377)	(6,231)	282,879	10,217	263,488
Income tax (expense) benefit	—	2,086	(16,217)	—	(14,131)
Income (loss) before equity in net income of subsidiaries	(23,377)	(4,145)	266,662	10,217	249,357
Equity in net income of subsidiaries	234,432	19,873	—	(254,305)	—
Net income	211,055	15,728	266,662	(244,088)	249,357
Net (income) loss attributable to noncontrolling interests	—	—	(38,623)	321	(38,302)
Net income available to Arch	211,055	15,728	228,039	(243,767)	211,055
Preferred dividends	(5,485)	—	—	—	(5,485)
Net income available to Arch common shareholders	$205,570	$ 15,728	$228,039	$ (243,767)	$205,570
Comprehensive income (loss) available to Arch	$273,260	$ 28,536	$300,542	$ (329,078)	$273,260

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

	Three Months Ended June 30, 2015				
Condensed Consolidating Statement of Income and Comprehensive Income	ACGL (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other ACGL Subsidiaries	Consolidating Adjustments and Eliminations	ACGL Consolidated
Revenues					
Net premiums earned	$—	$—	$ 943,438	$—	$ 943,438
Net investment income	—	800	87,154	(991)	86,963
Net realized gains (losses)	—	1	(35,726)	—	(35,725)
Net impairment losses recognized in earnings	—	—	(1,113)	—	(1,113)
Other underwriting income	—	—	7,717	—	7,717
Equity in net income (loss) of investment funds accounted for using the equity method	—	—	16,167	—	16,167
Other income (loss)	—	—	2,205	—	2,205
Total revenues	—	801	1,019,842	(991)	1,019,652
Expenses					
Losses and loss adjustment expenses	—	—	519,426	—	519,426
Acquisition expenses	—	—	175,425	—	175,425
Other operating expenses	—	—	151,190	—	151,190
Corporate expenses	16,900	1,012	(494)	—	17,418
Interest expense	5,862	6,769	(7,793)	(827)	4,011
Net foreign exchange (gains) losses	—	—	6,942	12,641	19,583

Total expenses	22,762	7,781	844,696	11,814	887,053
Income (loss) before income taxes	(22,762)	(6,980)	175,146	(12,805)	132,599
Income tax (expense) benefit	—	3,697	(10,477)	—	(6,780)
Income (loss) before equity in net income of subsidiaries	(22,762)	(3,283)	164,669	(12,805)	125,819
Equity in net income of subsidiaries	138,552	14,077	—	(152,629)	—
Net income	115,790	10,794	164,669	(165,434)	125,819
Net (income) loss attributable to noncontrolling interests	—	—	(10,193)	164	(10,029)
Net income available to Arch	115,790	10,794	154,476	(165,270)	115,790
Preferred dividends	(5,485)	—	—	—	(5,485)
Net income available to Arch common shareholders	$110,305	$ 10,794	$ 154,476	$ (165,270)	$ 110,305
Comprehensive income (loss) available to Arch	$24,208	$ (13,505)	$ 50,249	$ (36,744)	$ 24,208

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

	Six Months Ended June 30, 2016				
Condensed Consolidating Statement of Income and Comprehensive Income	ACGL (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other ACGL Subsidiaries	Consolidating Adjustments and Eliminations	ACGL Consolidated
Revenues					
Net premiums earned	$—	$ —	$ 1,957,564	$ —	$ 1,957,564
Net investment income	1	1,548	194,358	(13,834)	182,073
Net realized gains (losses)	—	—	105,542	—	105,542
Net impairment losses recognized in earnings	—	—	(12,982)	—	(12,982)
Other underwriting income	—	—	46,769	(16,498)	30,271
Equity in net income (loss) of investment funds accounted for using the equity method	—	—	15,392	—	15,392
Other income (loss)	199	—	(231)	—	(32)
Total revenues	200	1,548	2,306,412	(30,332)	2,277,828
Expenses					
Losses and loss adjustment expenses	—	—	1,107,541	—	1,107,541
Acquisition expenses	—	—	345,746	—	345,746
Other operating expenses	—	—	311,859	—	311,859
Corporate expenses	26,796	941	(1,154)	—	26,583
Interest expense	11,863	13,319	36,279	(29,691)	31,770
Net foreign exchange (gains) losses	—	—	2,370	(3,466)	(1,096)
Total expenses	38,659	14,260	1,802,641	(33,157)	1,822,403

Income (loss) before income taxes	(38,459)	(12,712)	503,771	2,825	455,425
Income tax (expense) benefit	—	4,330	(34,771)	—	(30,441)
Income (loss) before equity in net income of subsidiaries	(38,459)	(8,382)	469,000	2,825	424,984
Equity in net income of subsidiaries	404,312	42,739	—	(447,051)	—
Net income	365,853	34,357	469,000	(444,226)	424,984
Net (income) loss attributable to noncontrolling interests	—	—	(59,773)	642	(59,131)
Net income available to Arch	365,853	34,357	409,227	(443,584)	365,853
Preferred dividends	(10,969)	—	—	—	(10,969)
Net income available to Arch common shareholders	$354,884	$ 34,357	$409,227	$ (443,584)	$354,884
Comprehensive income (loss) available to Arch	$546,189	$ 87,185	$592,793	$ (679,978)	$546,189

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

	Six Months Ended June 30, 2015				
Condensed Consolidating Statement of Income and Comprehensive Income	ACGL (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other ACGL Subsidiaries	Consolidating Adjustments and Eliminations	ACGL Consolidated
Revenues					
Net premiums earned	$—	$ —	$ 1,853,702	$ —	$ 1,853,702
Net investment income	—	805	173,164	(8,012)	165,957
Net realized gains (losses)	—	1	47,622	—	47,623
Net impairment losses recognized in earnings	—	—	(6,912)	—	(6,912)
Other underwriting income	—	—	19,253	—	19,253
Equity in net income (loss) of investment funds accounted for using the equity method	—	—	22,056	—	22,056
Other income (loss)	—	—	317	—	317
Total revenues	—	806	2,109,202	(8,012)	2,101,996
Expenses					
Losses and loss adjustment expenses	—	—	1,013,142	—	1,013,142
Acquisition expenses	—	—	338,501	—	338,501
Other operating expenses	—	—	299,727	—	299,727
Corporate expenses	25,532	2,271	(1,040)	—	26,763
Interest expense	11,718	13,135	(258)	(7,848)	16,747
Net foreign exchange (gains) losses	—	—	(32,688)	(14,230)	(46,918)
Total expenses	37,250	15,406	1,617,384	(22,078)	1,647,962

Income (loss) before income taxes	(37,250)	(14,600)	491,818	14,066	454,034
Income tax (expense) benefit	—	5,110	(24,568)	—	(19,458)
Income (loss) before equity in net income of subsidiaries	(37,250)	(9,490)	467,250	14,066	434,576
Equity in net income of subsidiaries	436,376	28,572	—	(464,948)	—
Net income	399,126	19,082	467,250	(450,882)	434,576
Net (income) loss attributable to noncontrolling interests	—	—	(35,614)	164	(35,450)
Net income available to Arch	399,126	19,082	431,636	(450,718)	399,126
Preferred dividends	(10,969)	—	—	—	(10,969)
Net income available to Arch common shareholders	$388,157	$ 19,082	$431,636	$ (450,718)	$388,157
Comprehensive income (loss) available to Arch	$336,711	$ (1,755)	$383,442	$ (381,687)	$336,711

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

	Six Months Ended June 30, 2016				
Condensed Consolidating Statement of Cash Flows	ACGL (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other ACGL Subsidiaries	Consolidating Adjustments and Eliminations	ACGL Consolidated
Operating Activities					
Net Cash Provided By (Used For) Operating Activities	$89,499	$ 10,732	$ 588,067	$ (147,074)	$ 541,224
Investing Activities					
Purchases of fixed maturity investments	—	—	(17,541,731)	—	(17,541,731)
Purchases of equity securities	—	—	(212,678)	—	(212,678)
Purchases of other investments	—	—	(650,613)	—	(650,613)
Proceeds from the sales of fixed maturity investments	—	—	16,978,549	—	16,978,549
Proceeds from the sales of equity securities	—	—	337,619	—	337,619
Proceeds from the sales, redemptions and maturities of other investments	—	—	636,535	—	636,535
	—	41,500	329,480	—	370,980

Proceeds from redemptions and maturities of fixed maturity investments					
Net settlements of derivative instruments	—	—	45,174	—	45,174
Net (purchases) sales of short-term investments	(76)	(53,729)	(250,655)	—	(304,460)
Change in cash collateral related to securities lending	—	—	(18,715)	—	(18,715)
Contributions to subsidiaries	(3,300)	—	(2,779)	6,079	—
Intercompany loans issued	—	—	—	—	—
Purchase of business, net of cash acquired	—	—	(1,460)	—	(1,460)
Purchases of fixed assets	(8)	—	(8,276)	—	(8,284)
Change in other assets	2,000	—	11,416	—	13,416
Net Cash Provided By (Used For) Investing Activities	(1,384)	(12,229)	(348,134)	6,079	(355,668)
Financing Activities					
Purchases of common shares	(75,256)	—	—	—	(75,256)

under share repurchase program					
Proceeds from common shares issued, net	(1,487)	—	6,079	(6,079)	(1,487)
Proceeds from borrowings	—	—	46,000	—	46,000
Repayments of borrowings	—	—	(179,171)	—	(179,171)
Change in cash collateral related to securities lending	—	—	18,715	—	18,715
Dividends paid to redeemable noncontrolling interests	—	—	(9,632)	638	(8,994)
Dividends paid to parent (1)	—	—	(146,436)	146,436	—
Other	—	200	(2,423)	—	(2,223)
Preferred dividends paid	(10,969)	—	—	—	(10,969)
Net Cash Provided By (Used For) Financing Activities	(87,712)	200	(266,868)	140,995	(213,385)
Effects of exchange rates changes on foreign currency cash	—	—	(8,906)	—	(8,906)
Increase (decrease) in cash	403	(1,297)	(35,841)	—	(36,735)
Cash beginning of year	6,809	17,023	529,494	—	553,326

Cash end of period	$7,212	$ 15,726	$ 493,653	$ —	$ 516,591

(1) Included in net cash provided by (used for) operating activities in the ACGL (Parent Guarantor) column.

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

	Six Months Ended June 30, 2015				
Condensed Consolidating Statement of Cash Flows	ACGL (Parent Guarantor)	Arch-U.S. (Subsidiary Issuer)	Other ACGL Subsidiaries	Consolidating Adjustments and Eliminations	ACGL Consolidated
Operating Activities					
Net Cash Provided By (Used For) Operating Activities	$378,703	$ 8,282	$ 433,833	$ (435,619)	$ 385,199
Investing Activities					
Purchases of fixed maturity investments	—	—	(14,641,391)	—	(14,641,391)
Purchases of equity securities	—	—	(288,535)	—	(288,535)
Purchases of other investments	—	—	(779,678)	—	(779,678)
Proceeds from the sales of fixed maturity investments	—	20,002	14,313,434	—	14,333,436
Proceeds from the sales of equity securities	—	—	272,343	—	272,343
Proceeds from the sales, redemptions and maturities of other investments	—	—	587,650	—	587,650
	—	—	474,984	—	474,984

Proceeds from redemptions and maturities of fixed maturity investments					
Net settlements of derivative instruments	—	—	19,006	—	19,006
Proceeds from investment in joint venture	—	—	40,000	—	40,000
Net (purchases) sales of short-term investments	(365)	(12,171)	16,243	—	3,707
Change in cash collateral related to securities lending	—	—	(18,329)	—	(18,329)
Contributions to subsidiaries	—	—	(9,290)	9,290	—
Intercompany loans issued	—	(39,500)	(27,500)	67,000	—
Purchase of business, net of cash acquired	—	—	818	—	818
Purchases of fixed assets	(24)	—	(6,372)	—	(6,396)
Change in other assets	—	—	(36,769)	—	(36,769)
Net Cash Provided By (Used For) Investing Activities	(389)	(31,669)	(83,386)	76,290	(39,154)

Financing Activities					
Purchases of common shares under share repurchase program	(361,877)	—	—	—	(361,877)
Proceeds from common shares issued, net	2,178	—	9,290	(9,290)	2,178
Proceeds from intercompany borrowings	—	27,500	39,500	(67,000)	—
Change in cash collateral related to securities lending	—	—	18,329	—	18,329
Dividends paid to redeemable noncontrolling interests	—	—	(9,632)	319	(9,313)
Dividends paid to parent (1)	—	—	(435,300)	435,300	—
Other	—	28	54,990	—	55,018
Preferred dividends paid	(10,969)	—	—	—	(10,969)
Net Cash Provided By (Used For) Financing Activities	(370,668)	27,528	(322,823)	359,329	(306,634)
Effects of exchange rates changes on foreign currency cash	—	—	(39)	—	(39)
Increase (decrease) in cash	7,646	4,141	27,585	—	39,372

Cash beginning of year	3,218	2,787	479,697	—	485,702
Cash end of period	$10,864	$ 6,928	$ 507,282	$ —	$ 525,074

(1) Included in net cash provided by (used for) operating activities in the ACGL (Parent Guarantor) column.

13. Income Taxes

The Company's income tax provision on income before income taxes resulted in an expense of 6.7% for the six months ended June 30, 2016, compared to an expense of 4.3% for the 2015 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.

The Company had a net deferred tax asset of $113.0 million at June 30, 2016, compared to $135.7 million at December 31, 2015. In addition, the Company paid $26.6 million and $26.0 million of income taxes for the six months ended June 30, 2016 and 2015, respectively.

14. 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, 2016, 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.

15. Transactions with Related Parties

Kewsong Lee, a director of ACGL, is a Managing Director and Deputy Chief Investment Officer for Corporate Private Equity of The Carlyle Group ("Carlyle"). As part of its investment philosophy, the Company invests a portion of its investment portfolio in alternative investment funds. As of June 30, 2016, the Company had aggregate commitments of $770.9 million to funds managed by Carlyle, of which $513.1 million was unfunded. The Company may make additional commitments to funds managed by Carlyle from time to time. During the six months ended June 30, 2016 and 2015, the Company made aggregate capital contributions to funds managed by Carlyle of $56.6 million and $25.6 million, respectively, and received aggregate cash distributions from funds managed by Carlyle of $13.8 million and $19.8 million, respectively.

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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, 2015 ("2015 Form 10-K"). In addition, readers should review "Risk Factors" set forth in Item 1A of Part I of our 2015 Form 10-K. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted.

Arch Capital Group Ltd. ("ACGL" and, together with its subsidiaries, "we" or "us") is a Bermuda public limited liability company with approximately $7.60 billion in capital at June 30, 2016 and, through operations in Bermuda, the United States, Europe and Canada, writes specialty lines of property and casualty insurance and reinsurance, as well as mortgage insurance and reinsurance, on a worldwide basis.

CURRENT OUTLOOK

The broad property casualty insurance market environment continues to be competitive in our business, consistent with our view last quarter. In our insurance segment, we experienced a slight deterioration in rates across certain sectors, while there are signs that reinsurance terms, especially ceding commissions, have bottomed out. This has led us to continue to reduce writings in certain property casualty lines in the 2016 second quarter. 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 and by utilizing reinsurance purchases to reduce volatility on large account, high capacity business.

Our mortgage segment is experiencing favorable market conditions. Within the U.S. mortgage insurance sector, Arch Mortgage Insurance Company ("Arch MI U.S.") continues to expand into the marketplace. Our market share continued to increase, reflecting continued growth in the bank channel and the impact of RateStar, our risk-based pricing program, which has met with wide acceptance from banks and credit union clients. In addition, international business and credit risk-sharing transactions continue to provide growth opportunities for our mortgage operations.

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.

Changing economic conditions could have a material impact on the frequency and severity of claims and, therefore, could negatively impact our underwriting returns. In addition, volatility in the financial markets could continue to significantly affect our investment returns, reported results and shareholders' equity. We consider the potential impact of economic trends in the estimation process for establishing unpaid losses and loss adjustment expenses and in determining our investment strategies. In addition, weakness of the U.S., European countries and other key economies, projected budget deficits for the U.S., European countries and other governments and the consequences associated with potential downgrades of securities of the U.S., European countries and other governments by credit rating agencies is inherently unpredictable and could have a material adverse effect on financial markets and economic conditions in the U.S. and throughout the world. In turn, this could have a material adverse effect on our business, financial condition and results of operations and, in particular, this could have a material adverse effect on the value and liquidity of securities in our investment portfolio.

On June 23, 2016, the U.K. held a referendum in which it was decided that the U.K. would leave the European Union, or EU. As a result of the referendum, commonly referred to as "Brexit," it is expected that the British government will begin negotiating the terms of the U.K.'s future relationship with the EU. These changes may adversely affect our

operations and financial results. For further information see Item 1A. “Risk Factors” in this Form 10-Q.

NATURAL CATASTROPHE RISK

We monitor our natural catastrophe risk globally for all perils and regions, in each case, where we believe there is significant exposure. Our models employ both proprietary and vendor-based systems and include cross-line correlations for property, marine, offshore energy, aviation, workers compensation and personal accident. Currently, we seek to limit our 1-in-250 year return period net probable maximum pre-tax loss from a severe catastrophic event in any geographic zone to approximately 25% of total shareholders’ equity available to Arch. We reserve the right to change this threshold at any time.

Based on in-force exposure estimated as of July 1, 2016, our modeled peak zone catastrophe exposure was a windstorm affecting the Northeastern U.S., with a net probable

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maximum pre-tax loss of $495 million, followed by windstorms affecting the Gulf of Mexico and Florida Tri-County regions with net probable maximum pre-tax losses of $434 million and $392 million, respectively. Our exposures to other perils, such as U.S. earthquake and international events, were less than the exposures arising from U.S. windstorms and hurricanes. As of July 1, 2016, our modeled peak zone earthquake exposure (Los Angeles earthquake) represented approximately 56% of our peak zone catastrophe exposure, and our modeled peak zone international exposure (Japan earthquake) was substantially less than both our peak zone windstorm and earthquake exposures.

Net probable maximum pre-tax loss estimates are net of expected reinsurance recoveries, before income tax and before excess reinsurance reinstatement premiums. Loss estimates are reflective of the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our loss estimates include clash estimates from other zones. The loss estimates shown above do not represent our maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates. There can be no assurances that we will not suffer a net loss greater than 25% of total shareholders' equity available to Arch from one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques or as a result of a decision to change the percentage of shareholders' equity exposed to a single catastrophic event. Actual losses may also increase if our reinsurers fail to meet their obligations to us or the reinsurance protections purchased by us are exhausted or are otherwise unavailable. See "Risk Factors—Risk Relating to Our Industry" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Natural and Man-Made Catastrophic Events" in our 2015 Form 10-K.

FINANCIAL MEASURES

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

Book Value per Common Share

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

Book value per common share was $52.04 at June 30, 2016, compared to $49.87 at March 31, 2016 and $47.49 at June 30, 2015. The 4.4% increase in the 2016 second quarter reflected strong underwriting and investment returns, while the 9.6% increase over the trailing twelve months reflected strong underwriting returns and mixed results on investments.

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 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 and net foreign exchange gains or losses, net of income taxes. Management uses Operating ROAE as a key measure of the return generated to common shareholders and has set an objective to achieve an average Operating ROAE of 15% or greater over the insurance cycle, which it believes to be an attractive return to common shareholders given the risks we assume. See "Comment on Non-GAAP Financial Measures."

Our Operating ROAE was 9.0% for the 2016 second quarter, compared to 9.9% for the 2015 second quarter, and 9.3% for the six months ended June 30, 2016, compared to 10.2% for the 2015 period. The lower level of Operating ROAE for the 2016 second quarter primarily reflected the growth in average common equity as compared to the 2015 second quarter.

Total Return on Investments

The following table summarizes the pre-tax total return (before investment expenses) of investments managed by Arch 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
2016 Second Quarter	1.27 %	1.08 %
2015 Second Quarter	(0.04)%	(0.15)%
Six Months Ended June 30, 2016	3.11 %	3.50 %
Six Months Ended June 30, 2015	1.07 %	0.14 %

Excluding the effects of foreign exchange, total return was 1.63% for the 2016 second quarter and 3.14% for the six months ended June 30, 2016, reflecting lower interest rates

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and tightening credit spreads on fixed maturity investments, compared to higher interest rates and widening credit spreads during the 2015 periods. Total return for the 2016 second quarter reflected the strengthening of the U.S. Dollar against the Euro, Canadian Dollar, Australian Dollar and other major currencies 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, 2016, the benchmark return index had an average credit quality of “Aa2” by Moody’s Investors Service (“Moody’s”), and an estimated duration of 3.46 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 AA U.S. Corporate & Yankees Index	21.25	%
BoAML 1-5 Year U.S. Treasury Index	13.00	
BoAML U.S. Mortgage Backed Securities Index	10.00	
BoAML 3-5 Year Fixed Rate Asset Backed Securities Index	7.00	
BoAML 1-10 Year U.S. Municipal Securities Index	7.00	
BoAML U.S. High Yield Constrained Index	5.50	
BoAML 0-3 Month U.S. Treasury Bill Index	5.00	
Barclays Capital CMBS Inv. Grade, AAA Rated Index	5.00	
Barclays Capital Agency Bullet, 10-10 Year Index	5.00	
MSCI All Country World Gross Total Return Index	5.00	
BoAML 1-10 Year Euro Government Index	4.50	
BoAML 5-10 Year U.S. Treasury Index	3.25	
BoAML 1-5 Year U.K. Gilt Index	3.00	
BoAML 1-10 Year Australian Governments Index	2.50	
BoAML 1-5 Year Canada Government Index	1.50	
BoAML Euro Government Index	1.00	
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 and net foreign exchange gains or losses, net of income taxes, and the use of annualized operating return on average common equity. The 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 and net foreign exchange gains or losses 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. 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 and net foreign exchange gains or losses 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” of the notes accompanying 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 intangible assets, 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.

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. 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.

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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,	
	2016	2015	2016	2015
Net income available to Arch common shareholders	$205,570	$110,305	$354,884	$388,157
Net realized (gains) losses	(43,935)	27,837	(76,399)	(39,638)
Net impairment losses recognized in earnings	5,343	1,113	12,982	6,912
Equity in net (income) loss of investment funds accounted for using the equity method	(8,737)	(16,168)	(15,392)	(22,057)
Net foreign exchange (gains) losses	(22,703)	22,241	(494)	(44,574)
Income tax expense	5,036	628	10,735	7,002
After-tax operating income available to Arch common shareholders	$140,574	$145,956	$286,316	$295,802
Beginning common shareholders' equity	$6,088,587	$5,963,702	$5,879,881	$5,805,053
Ending common shareholders' equity	6,378,922	5,812,515	6,378,922	5,812,515
Average common shareholders' equity	$6,233,755	$5,888,109	$6,129,402	$5,808,784
Annualized return on average common equity %	13.2	7.5	11.6	13.4
Annualized operating return on average common equity %	9.0	9.9	9.3	10.2

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 Chairman and Chief Executive Officer, the President and Chief Operating Officer, and the Chief Financial Officer of ACGL. 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,		
	2016	2015	% Change
Gross premiums written	$762,043	$744,810	2.3
Premiums ceded	(246,875)	(235,743)	
Net premiums written	515,168	509,067	1.2
Change in unearned premiums	12,482	758	
Net premiums earned	527,650	509,825	3.5
Other underwriting income	—	521	

Losses and loss adjustment expenses	(354,633)	(320,926)	
Acquisition expenses, net	(77,317)	(76,723)	
Other operating expenses	(92,371)	(89,054)	
Underwriting income	$3,329	$23,643	(85.9)

Underwriting Ratios			% Point Change
Loss ratio	67.2 %	62.9 %	4.3
Acquisition expense ratio	14.7 %	15.0 %	(0.3)
Other operating expense ratio	17.5 %	17.5 %	—
Combined ratio	99.4 %	95.4 %	4.0

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	Six Months Ended June 30,		
	2016	2015	% Change
Gross premiums written	$1,560,596	$1,510,963	3.3
Premiums ceded	(495,664)	(459,893)	
Net premiums written	1,064,932	1,051,070	1.3
Change in unearned premiums	(24,193)	(33,331)	
Net premiums earned	1,040,739	1,017,739	2.3
Other underwriting income	—	948	
Losses and loss adjustment expenses	(678,242)	(638,822)	
Acquisition expenses, net	(151,671)	(151,801)	
Other operating expenses	(178,232)	(177,173)	
Underwriting income	$32,594	$50,891	(36.0)
Underwriting Ratios			% Point Change
Loss ratio	65.2 %	62.8 %	2.4
Acquisition expense ratio	14.6 %	14.9 %	(0.3)
Other operating expense ratio	17.1 %	17.4 %	(0.3)
Combined ratio	96.9 %	95.1 %	1.8

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 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 table sets forth our insurance segment's net premiums written by major line of business:

	Three Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Professional lines	$107,519	20.9	$100,100	19.7
Construction and national accounts	85,260	16.5	77,096	15.1
Programs	75,420	14.6	106,179	20.9
Excess and surplus casualty	60,412	11.7	53,971	10.6
Travel, accident and health	54,456	10.6	35,416	7.0
Property, energy, marine and aviation	50,194	9.7	62,049	12.2
Lenders products	25,254	4.9	24,011	4.7
Other	56,653	11.0	50,245	9.9
Total	$515,168	100.0	$509,067	100.0

2016 Second Quarter versus 2015 Second Quarter. Gross premiums written by the insurance segment in the 2016 second quarter were 2.3% higher than in the 2015 second quarter, while net premiums written were 1.2% higher than in the 2015 second quarter. The increase in net premiums written reflected growth in travel, construction and national accounts, partially offset by a reduction in programs and property lines. The growth in travel reflected both new

business and continued expansion in existing accounts. The increase in construction and national accounts primarily reflected new business and audit premiums. The reduction in program business primarily reflected the continued impact of the non-renewal of a large program in the latter part of 2015 while the lower level of net premiums written in property lines reflected continued weak market conditions.

	Six Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Professional lines	$216,986	20.4	$211,278	20.1
Construction and national accounts	189,734	17.8	173,599	16.5
Programs	165,204	15.5	224,376	21.3
Excess and surplus casualty	114,069	10.7	103,341	9.8
Travel, accident and health	111,719	10.5	74,328	7.1
Property, energy, marine and aviation	100,169	9.4	120,716	11.5
Lenders products	50,038	4.7	46,827	4.5
Other	117,013	11.0	96,605	9.2
Total	$1,064,932	100.0	$1,051,070	100.0

Six Months Ended June 30, 2016 versus 2015 period. Gross premiums written by the insurance segment for the six months ended June 30, 2016 were 3.3% higher than in the 2015 period, while net premiums written were 1.3% higher than in the 2015 period. The increase in net premiums written reflected growth in travel, accident and health, construction and national accounts and alternative markets business, partially offset by a reduction in programs and property lines. The growth in travel, accident and health reflected both new business and continued expansion in existing accounts. The increase in construction and national accounts primarily reflected new business and audit premiums while the increase in alternative markets resulted from new accounts, exposure growth and audit premiums. The reduction in program business primarily reflected the continued impact of the non-renewal of a large program in the latter part of 2015 while the lower level of net premiums written in property lines reflected continued weak market conditions.

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,			
	2016		2015	
	Amount	%	Amount	%
Professional lines	$108,556	20.6	$107,420	21.1
Construction and national accounts	84,414	16.0	71,580	14.0
Programs	90,595	17.2	112,942	22.2
Excess and surplus casualty	57,155	10.8	51,709	10.1
Travel, accident and health	59,821	11.3	39,979	7.8
Property, energy, marine and aviation	47,076	8.9	53,825	10.6
Lenders products	23,007	4.4	21,259	4.2
Other	57,026	10.8	51,111	10.0
Total	$527,650	100.0	$509,825	100.0

	Six Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Professional lines	$213,500	20.5	$215,292	21.2
Construction and national accounts	161,457	15.5	143,810	14.1
Programs	189,096	18.2	228,906	22.5
Excess and surplus casualty	112,120	10.8	104,056	10.2
Travel, accident and health	107,366	10.3	73,711	7.2

Property, energy, marine and aviation	96,113	9.2	108,906	10.7
Lenders products	47,409	4.6	44,118	4.3
Other	113,678	10.9	98,940	9.7
Total	$1,040,739	100.0	$1,017,739	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 2016 second quarter were 3.5% higher than in the 2015 second quarter and 2.3% higher for the six months ended June 30, 2016 than in the 2015 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,	
	2016	2015	2016	2015
Current year	68.1 %	66.5 %	66.3 %	65.5 %
Prior period reserve development	(0.9)%	(3.6)%	(1.1)%	(2.7)%
Loss ratio	67.2 %	62.9 %	65.2 %	62.8 %

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Current Year Loss Ratio.
The insurance segment's current year loss ratio in the 2016 second quarter was 1.6 points higher than in the 2015 second quarter and 0.8 points higher than in the 2015 period. The 2016 second quarter loss ratio reflected 3.9 points of current year catastrophic activity, compared to 1.2 points in the 2015 second quarter, and 2.0 points for the six months ended June 30, 2016, compared to 0.9 points for the 2015 period. Events in the 2016 second quarter included the Fort McMurray wildfires, Texas hailstorms and floods and other U.S. weather events.
Prior Period Reserve Development.
2016 Second Quarter: The insurance segment's net favorable development of $4.9 million, or 0.9 points, consisted of $8.1 million of net favorable development in long-tailed lines and $6.5 million of net favorable development in short-tailed lines, partially offset by $9.7 million of net adverse development in medium-tailed lines. Net favorable development in long-tailed lines reflected net reductions in executive assurance reserves from the 2008 to 2012 accident years (i.e., the year in which a loss occurred), and net reductions in casualty reserves from the 2004 to 2012 accident years, offset by a large energy casualty claim from the 2015 accident year. Net favorable development in short-tailed lines primarily resulted from reductions in property (including special risk other than marine) reserves from the 2012 to 2014 accident years and the 2008 accident year, primarily due to varying levels of reported claims activity. Such amount included $4.1 million of favorable development on the 2005 to 2015 named catastrophic events. Net adverse development in medium-tailed lines primarily resulted from an increase in programs of $16.4 million stemming in part from terminated programs, partially offset by favorable development of $6.7 million in other medium-tailed lines, primarily in professional liability and surety.
2015 Second Quarter: The insurance segment's net favorable development of $18.6 million, or 3.6 points, consisted of $13.6 million of net favorable development in short-tailed lines and $5.0 million of net favorable development in medium-tailed and long-tailed lines. Favorable development in short-tailed lines primarily consisted of reductions in property (including special risk other than marine) reserves from the 2011 to 2014 accident years, primarily due to varying levels of reported claims activity. Development on the 2005 to 2014 named catastrophic events was adverse by $0.8 million in the quarter. Net favorable development in medium-tailed and long-tailed lines reflected favorable development in marine reserves, primarily from the 2013 accident year, in surety reserves, primarily from the 2012 and 2013 accident years, and in casualty reserves, primarily from the 2007 to 2009 accident years. In addition, the insurance segment's results reflected net favorable development in professional lines of $0.7 million, including favorable development in healthcare reserves, primarily from the 2008 to 2011 accident years, partially offset by an increase in reserves on professional liability and executive assurance

reserves, primarily in the 2009 and 2011 accident years due to a small number of large losses, largely offset by favorable development in other accident years.
Six Months Ended June 30, 2016: The insurance segment's net favorable development of $11.1 million, or 1.1 points, consisted of $18.0 million of net favorable development in long-tailed lines and $10.2 million of net favorable development in short-tailed lines, partially offset by $17.1 million of net adverse development in medium-tailed lines. Net favorable development in long-tailed lines reflected net reductions in executive assurance reserves from the 2008 to 2012 accident years, and net reductions in casualty reserves from the 2004 to 2013 accident years, partially offset by a large energy casualty claim from the 2015 accident year. Net favorable development in short-tailed lines primarily resulted from reductions in property (including special risk other than marine) reserves from the 2012 to 2014 accident years, primarily due to varying levels of reported claims activity. Such amount included $7.3 million of favorable development on the 2005 to 2015 named catastrophic events. Net adverse development in medium-tailed lines primarily resulted from an increase in programs of $22.4 million stemming in part from terminated programs, partially offset by favorable development of $5.3 million in other medium-tailed lines, primarily in professional liability and surety.
Six Months Ended June 30, 2015: The insurance segment's net favorable development of $27.3 million, or 2.7 points, consisted of $25.6 million of net favorable development in short-tailed lines and $1.7 million of net favorable development in medium-tailed and long-tailed lines. Favorable development in short-tailed lines primarily consisted of reductions in property (including special risk other than marine) reserves from the 2008 to 2014 accident years,

primarily due to varying levels of reported claims activity. Development on the 2005 to 2014 named catastrophic events was favorable by $2.9 million for the 2015 period. Net favorable development in medium-tailed and long-tailed lines reflected favorable development in marine reserves, primarily from the 2010 to 2013 accident years, and in surety reserves, primarily from the 2009 to 2013 accident years. In addition, the insurance segment’s results reflected net favorable development in professional lines of $3.1 million, including favorable development in healthcare reserves, primarily from the 2007 to 2012 accident years, and in executive assurance reserves across most accident years, partially offset by an increase in reserves on professional liability reserves, primarily in the 2011 and 2012 accident years.

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Underwriting Expenses.
2016 Second Quarter versus 2015 Second Quarter: The insurance segment's underwriting expense ratio was 32.2% in the 2016 second quarter, compared to 32.5% in the 2015 second quarter. The comparison of the underwriting expense ratios and the underlying acquisition expense and other operating 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, 2016 versus 2015 period: The insurance segment's underwriting expense ratio was 31.7% for the six months ended June 30, 2016, compared to 32.3% for the 2015 period. The comparison of the underwriting expense ratios and the underlying acquisition expense and other operating expense ratios reflects changes in the level of reinsurance ceded on a quota share basis and changes in the mix of business.
Reinsurance Segment
The following tables set forth our reinsurance segment's underwriting results:

	Three Months Ended June 30,		
	2016	2015	% Change
Gross premiums written	$412,053	$342,101	20.4
Premiums ceded	(119,951)	(89,446)	
Net premiums written	292,102	252,655	15.6
Change in unearned premiums	(846)	21,310	
Net premiums earned	291,256	273,965	6.3
Other underwriting income	20,118	2,658	
Losses and loss adjustment expenses	(146,091)	(111,183)	
Acquisition expenses, net	(55,796)	(58,360)	
Other operating expenses	(37,115)	(39,007)	
Underwriting income	$72,372	$68,073	6.3
Underwriting Ratios			% Point Change
Loss ratio	50.2 %	40.6 %	9.6
Acquisition expense ratio	19.2 %	21.3 %	(2.1)
Other operating expense ratio	12.7 %	14.2 %	(1.5)
Combined ratio	82.1 %	76.1 %	6.0

	Six Months Ended June 30,		
	2016	2015	% Change
Gross premiums written	$893,443	$827,213	8.0
Premiums ceded	(280,517)	(226,015)	
Net premiums written	612,926	601,198	2.0
Change in unearned premiums	(60,462)	(47,516)	
Net premiums earned	552,464	553,682	(0.2)
Other underwriting income	20,443	4,087	
Losses and loss adjustment expenses	(257,689)	(223,715)	
Acquisition expenses, net	(110,583)	(114,964)	
Other operating expenses	(73,570)	(77,051)	
Underwriting income	$131,065	$142,039	(7.7)
Underwriting Ratios			% Point Change
Loss ratio	46.6 %	40.4 %	6.2
Acquisition expense ratio	20.0 %	20.8 %	(0.8)
Other operating expense ratio	13.3 %	13.9 %	(0.6)

Combined ratio	79.9	%	75.1	%	4.8

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 of 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,

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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 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.

Premiums Written.

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

	Three Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Other specialty	$113,943	39.0	$72,134	28.6
Property excluding property catastrophe	69,831	23.9	57,005	22.6
Casualty	61,555	21.1	64,778	25.6
Property catastrophe	41,771	14.3	46,046	18.2
Marine and aviation	1,463	0.5	9,461	3.7
Other	3,539	1.2	3,231	1.3
Total	$292,102	100.0	$252,655	100.0
Pro rata	$146,231	50.1	$128,976	51.0
Excess of loss	145,871	49.9	123,679	49.0
Total	$292,102	100.0	$252,655	100.0

2016 Second Quarter versus 2015 Second Quarter. Gross premiums written by the reinsurance segment in the 2016 second quarter were 20.4% higher than in the 2015 second quarter, while net premiums written were 15.6% higher than in the 2015 second quarter. The growth reflected the impact of a 2016 second quarter loss portfolio transfer in the other specialty line which resulted in $52.1 million of gross premiums written and $40.2 million of net premiums written. Such premium was substantially earned in the period and resulted in a corresponding increase to losses and loss adjustment expenses. Excluding such transaction, net premiums written were flat, reflecting competitive market conditions and a higher level of ceded premiums.

	Six Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Other specialty	$214,763	35.0	$173,282	28.8
Property excluding property catastrophe	143,554	23.4	146,929	24.4
Casualty	188,038	30.7	182,636	30.4
Property catastrophe	39,476	6.4	61,489	10.2
Marine and aviation	19,003	3.1	30,305	5.0
Other	8,092	1.3	6,557	1.1
Total	$612,926	100.0	$601,198	100.0
Pro rata	$258,440	42.2	$259,211	43.1
Excess of loss	354,486	57.8	341,987	56.9
Total	$612,926	100.0	$601,198	100.0

Six Months Ended June 30, 2016 versus 2015 period. Gross premiums written by the reinsurance segment for the six months ended June 30, 2016 were 8.0% higher than in the 2015 period, while net premiums written were 2.0% higher than in the 2015 period. Premiums written reflects the loss portfolio transfer noted above, partially offset by decreases in property lines, reflecting competitive market conditions and a higher level of ceded premiums.

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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,			
	2016		2015	
	Amount	%	Amount	%
Other specialty	$109,493	37.6	$80,256	29.3
Property excluding property catastrophe	65,487	22.5	69,600	25.4
Casualty	80,157	27.5	83,186	30.4
Property catastrophe	19,823	6.8	24,325	8.9
Marine and aviation	12,559	4.3	13,423	4.9
Other	3,737	1.3	3,175	1.2
Total	$291,256	100.0	$273,965	100.0
Pro rata	$153,933	52.9	$143,835	52.5
Excess of loss	137,323	47.1	130,130	47.5
Total	$291,256	100.0	$273,965	100.0

	Six Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Other specialty	$183,742	33.3	$164,054	29.6
Property excluding property catastrophe	137,440	24.9	149,364	27.0
Casualty	156,210	28.3	156,567	28.3
Property catastrophe	37,776	6.8	51,595	9.3
Marine and aviation	30,437	5.5	26,036	4.7
Other	6,859	1.2	6,066	1.1
Total	$552,464	100.0	$553,682	100.0
Pro rata	$293,626	53.1	$297,350	53.7
Excess of loss	258,838	46.9	256,332	46.3
Total	$552,464	100.0	$553,682	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. Net premiums earned for the 2016 second quarter were 6.3% higher than in the 2015 second quarter and 0.2% lower for the six months ended June 30, 2016 than in the 2015 period. Net premiums earned reflects the loss portfolio transfer noted above along with changes in net premiums written over the previous five quarters.

Other Underwriting Income.

Other underwriting income was $20.1 million for the 2016 second quarter, compared to $2.7 million for the 2015 second quarter, and $20.4 million for the six months ended June 30, 2016, compared to $4.1 million for the 2015 period. The 2016 second quarter amount included $19.1 million related to a contract which was commuted during the period. This contract had been reflected as a deposit accounting liability (i.e., a contract that, in accordance with GAAP, does not pass risk transfer) prior to the commutation.

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,	
	2016	2015	2016	2015
Current year	74.2 %	61.7 %	67.8 %	61.3 %

Prior period reserve development	(24.0)%	(21.1)%	(21.2)%	(20.9)%
Loss ratio	50.2 %	40.6 %	46.6 %	40.4 %

Current Year Loss Ratio.

The reinsurance segment's current year loss ratio in the 2016 second quarter was 12.5 points higher than in the 2015 second quarter, and 6.5 points higher for the six months ended June 30, 2016 than in the 2015 period. The 2016 second quarter loss ratio reflected 6.1 points of current year catastrophic activity, compared to 3.7 points in the 2015 second quarter, and 3.9 points for the six months ended June 30, 2016, compared to 2.1 points in the 2015 period. Events in the 2016 second quarter included the Texas hailstorms and floods, Fort McMurray wildfires, earthquake events in Japan and Equador and other U.S. weather events. In addition, the 2016 ratios reflect the impact of the loss portfolio transfer noted above (net premiums earned at a high loss ratio), which increased the current year loss ratio by 7.7 points in the 2016 second quarter and 4.0 points for the six months ended June 30, 2016. The 2016 ratios also reflected the impact of a large marine attritional loss that had no equivalent in the 2015 periods.

Prior Period Reserve Development.

2016 Second Quarter: The reinsurance segment's net favorable development of $69.8 million, or 24.0 points, consisted of $48.9 million from short-tailed lines and $20.9 million from long-tailed and medium-tailed lines. Favorable development in short-tailed lines included $39.5 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). Such amount did not reflect any significant development on the 2005 to 2015 named catastrophic events. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying 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 lines reflected reductions in casualty reserves of $22.8 million based on varying levels of reported and paid claims activity, primarily from the 2002 to 2009 underwriting years and 2012 to 2013 underwriting years.

2015 Second Quarter: The reinsurance segment's net favorable development of $57.8 million, or 21.1 points, consisted of $21.2 million from short-tailed lines and $36.6

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million from long-tailed and medium-tailed lines. Favorable development in short-tailed lines included $18.4 million from property catastrophe and property other than property catastrophe reserves, primarily from the 2012 to 2014 underwriting years. Contained within this release was favorable development from the 2005 to 2014 named catastrophic events of $8.3 million. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying 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 lines reflected reductions in casualty reserves of $36.3 million based on varying levels of reported and paid claims activity, primarily from the 2003 to 2009 underwriting years.

Six Months Ended June 30, 2016: The reinsurance segment's net favorable development of $117.2 million, or 21.2 points, consisted of $85.4 million from short-tailed lines and $31.8 million from long-tailed and medium-tailed lines. Favorable development in short-tailed lines included $69.4 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). Such amount included $2.7 million of favorable development from the 2005 to 2015 named catastrophic events. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying 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 lines reflected reductions in casualty reserves of $37.0 million based on varying levels of reported and paid claims activity, primarily from the 2002 to 2013 underwriting years. Such amounts were partially offset by net adverse development on marine reserves of $3.9 million, primarily from the 2002 and 2015 underwriting years, partially offset by favorable development from most other underwriting years.

Six Months Ended June 30, 2015: The reinsurance segment's net favorable development of $115.8 million, or 20.9 points, consisted of $60.4 million from short-tailed lines and $55.4 million from long-tailed and medium-tailed lines. Favorable development in short-tailed lines included $45.9 million from property catastrophe and property other than property catastrophe reserves, primarily from the 2012 to 2014 underwriting years. Contained within this release was favorable development from the 2005 to 2014 named catastrophic events of $10.3 million. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying 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 lines reflected reductions in casualty reserves of $52.2 million, primarily from the 2003 to 2009 underwriting years based on varying levels of reported and paid claims activity, and a reduction

of $3.2 million in marine and aviation reserves, primarily from the 2010 to 2012 underwriting years.

Underwriting Expenses.

2016 Second Quarter versus 2015 Second Quarter: The underwriting expense ratio for the reinsurance segment was 31.9% in the 2016 second quarter, compared to 35.5% in the 2015 second quarter. The 2016 second quarter ratio reflected approximately 5.0 points of benefit from the loss portfolio transfer noted above (net premiums earned with no related expenses). The acquisition expense ratio for the 2016 second quarter was 19.2%, compared to 21.3% for the 2015 second quarter. The operating expense ratio for the 2016 second quarter was 12.7%, compared to 14.2% in the 2015 second quarter.

Six Months Ended June 30, 2016 versus 2015 period: The underwriting expense ratio for the reinsurance segment was 33.3% for the six months ended June 30, 2016, compared to 34.7% for the 2015 period. The ratio for the six months ended June 30, 2016 reflected approximately 2.6 points of benefit from the loss portfolio transfer noted above (net premiums earned with no related expenses). The acquisition expense ratio for the six months ended June 30, 2016 was 20.0%, compared to 20.8% for the 2015 period. The operating expense ratio for the six months ended June 30, 2016 was 13.3%, compared to 13.9% for the 2015 period.

Mortgage Segment

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

	Three Months Ended June 30,		
	2016	2015	% Change
Gross premiums written	$118,434	$68,572	72.7

Premiums ceded	(6,969)	(6,902)	
Net premiums written	111,465	61,670	80.7
Change in unearned premiums	(44,953)	(9,211)	
Net premiums earned	66,512	52,459	26.8
Other underwriting income	4,137	3,686	
Losses and loss adjustment expenses	(366)	(9,639)	
Acquisition expenses, net	(8,523)	(10,200)	
Other operating expenses	(23,991)	(19,679)	
Underwriting income	$37,769	$16,627	127.2

Underwriting Ratios			% Point Change
Loss ratio	0.6 %	18.4 %	(17.8)
Acquisition expense ratio	12.8 %	19.4 %	(6.6)
Other operating expense ratio	36.1 %	37.5 %	(1.4)
Combined ratio	49.5 %	75.3 %	(25.8)

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	Six Months Ended June 30,		
	2016	2015	% Change
Gross premiums written	$229,714	$129,113	77.9
Premiums ceded	(11,736)	(15,572)	
Net premiums written	217,978	113,541	92.0
Change in unearned premiums	(89,701)	(10,715)	
Net premiums earned	128,277	102,826	24.8
Other underwriting income	7,930	11,404	
Losses and loss adjustment expenses	(8,995)	(23,448)	
Acquisition expenses, net	(16,908)	(20,618)	
Other operating expenses	(48,606)	(40,048)	
Underwriting income	$61,698	$30,116	104.9
Underwriting Ratios			% Point Change
Loss ratio	7.0 %	22.8 %	(15.8)
Acquisition expense ratio	13.2 %	20.1 %	(6.9)
Other operating expense ratio	37.9 %	38.9 %	(1.0)
Combined ratio	58.1 %	81.8 %	(23.7)

The mortgage segment includes the results of Arch MI U.S. and Arch Mortgage Insurance Designated Activity Company, leading providers of mortgage insurance products and services to the U.S. and European markets, respectively. Arch MI U.S. is approved as an eligible mortgage insurer by Federal National Mortgage Association ("Fannie Mae") and Federal Home Loan Mortgage Corporation ("Freddie Mac"), each a government sponsored enterprise, or "GSE." The mortgage segment also includes GSE credit risk-sharing transactions and mortgage reinsurance for the U.S. and Australian markets.

Premiums Written.

The following table sets 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,			
	2016		2015	
	Amount	%	Amount	%
Client location:				
United States	$66,261	59.4	$47,460	77.0
Other	45,204	40.6	14,210	23.0
Total	$111,465	100.0	$61,670	100.0
Underwriting location:				
United States	$42,442	38.1	$30,589	49.6
Other	69,023	61.9	31,081	50.4
Total	$111,465	100.0	$61,670	100.0

2016 Second Quarter versus 2015 Second Quarter. Net premiums written for the 2016 second quarter were 80.7% higher than in the 2015 second quarter. Approximately two thirds of the increase was in Australian mortgage reinsurance business with the remainder split between U.S. primary business, primarily from banks and other non-credit union originators, and in GSE credit risk-sharing transactions receiving insurance accounting treatment. The persistency

rate, which represents the percentage of mortgage insurance in force at the beginning of a 12-month period that remains in force at the end of such period, of the Arch MI U.S. portfolio of mortgage loans was 75.6% at June 30, 2016, compared to 74.2% at March 31, 2016. The persistency rates continue to reflect mortgage refinance activity and

the low interest rate environment.

	Six Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Client location:				
United States	122,064	56.0	93,282	82.2
Other	95,914	44.0	20,259	17.8
Total	$217,978	100.0	$113,541	100.0
Underwriting location:				
United States	$77,772	35.7	$58,545	51.6
Other	140,206	64.3	54,996	48.4
Total	$217,978	100.0	$113,541	100.0

Six Months Ended June 30, 2016 versus 2015 period. Net premiums written for the six months ended June 30, 2016 were 92.0% higher than for the 2015 period. Over two thirds of the increase was in Australian mortgage reinsurance business with the remainder split between U.S. primary business, primarily from banks and other non-credit union originators, and in GSE credit risk-sharing transactions receiving insurance accounting treatment.

Arch MI U.S. generated $6.42 billion of new insurance written (“NIW”) during the 2016 second quarter, of which approximately 76% was from banks and other non-credit union mortgage originators. NIW represents the original principal balance of all loans that received coverage during the period.

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Net Premiums Earned.

The following tables set forth our mortgage segment's net premiums earned by client location and underwriting location:

	Three Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Client Location:				
United States	$61,046	91.8	$50,009	95.3
Other	5,466	8.2	2,450	4.7
Total	$66,512	100.0	$52,459	100.0
Underwriting location:				
United States	$34,124	51.3	$27,450	52.3
Other	32,388	48.7	25,009	47.7
Total	$66,512	100.0	$52,459	100.0

	Six Months Ended June 30,			
	2016		2015	
	Amount	%	Amount	%
Client Location:				
United States	$118,178	92.1	$98,084	95.4
Other	10,099	7.9	4,742	4.6
Total	$128,277	100.0	$102,826	100.0
Underwriting location:				
United States	$66,644	52.0	$52,969	51.5
Other	61,633	48.0	49,857	48.5
Total	$128,277	100.0	$102,826	100.0

Net premiums earned for the 2016 periods were higher than in the 2015 periods, primarily due to the growth in insurance in force for Arch MI U.S. along with a higher earned contribution from the mortgage segment's quota share reinsurance business.

Other Underwriting Income.

Other underwriting income, which is primarily related to GSE risk-sharing transactions receiving derivative accounting treatment, was $4.1 million for the 2016 second quarter, compared to $3.7 million for the 2015 second quarter, and $7.9 million for the six months ended June 30, 2016, compared to $11.4 million for the 2015 period (which included approximately $3.4 million of catch up income due to the timing of the insurance product and securitization transactions).

Losses and Loss Adjustment Expenses.

Unlike property and casualty business for which we estimate ultimate losses on premiums earned, losses on mortgage insurance business are only recorded at the time a borrower is delinquent on their mortgage, in accordance with mortgage insurance industry practice. Because our mortgage insurance reserving process does not take into account the impact of future losses from loans that are not in default, mortgage insurance loss reserves are not an estimate of ultimate losses. In addition to establishing loss reserves for loans in default,

under GAAP, we are required to establish a premium deficiency reserve for our mortgage insurance products if the amount of expected future losses for a particular product and maintenance costs for such product exceeds expected future premiums, existing reserves and the anticipated investment income for such product. We evaluate whether a premium deficiency exists quarterly. No such reserve was established in the 2016 second quarter.

The table below shows the components of the mortgage segment's loss ratio:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Current year	17.2 %	20.5 %	17.8 %	26.4 %
Prior period reserve development	(16.6)%	(2.1)%	(10.8)%	(3.6)%
Loss ratio	0.6 %	18.4 %	7.0 %	22.8 %

Current Year Loss Ratio.

The mortgage segment's current year loss ratio was 3.3 points lower in the 2016 second quarter than in the 2015 second quarter, and 8.6 points lower for the six months ended June 30, 2016 than in the 2015 period. The current year loss ratio for the 2016 periods reflect higher premiums driven by growth in insurance in force, the impact of a low number of delinquent loans and a lower claim rate on such loans.

Prior Period Reserve Development.

The mortgage segment's net favorable development was $11.1 million, or 16.6 points, for the 2016 second quarter, compared to $1.1 million, or 2.1 points, for the 2015 second quarter, and $13.8 million, or 10.8 points, for the six months ended June 30, 2016, compared to $3.7 million, or 3.6 points, for the 2015 period. The reduction in all periods was primarily driven by continued lower than expected claim rates across most origination years.

Underwriting Expenses.

2016 Second Quarter versus 2015 Second Quarter. The underwriting expense ratio for the mortgage segment was 48.9% in the 2016 second quarter, compared to 56.9% in the 2015 second quarter. The acquisition expense ratio was 12.8% for the 2016 second quarter, compared to 19.4% for the 2015 second quarter. The operating expense ratio was 36.1% for the 2016 second quarter, compared to 37.5% in the 2015 second quarter. The underwriting expense ratio is expected to stay at an elevated rate until Arch MI U.S. reaches scale.

Six Months Ended June 30, 2016 versus 2015 period. The underwriting expense ratio for the mortgage segment was 51.1% for the six months ended June 30, 2016, compared to 59.0% for the 2015 period. The acquisition expense ratio was 13.2% for the six months ended June 30, 2016, compared to 20.1% for the 2015 period. The operating expense ratio was

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37.9% for the six months ended June 30, 2016, compared to 38.9% for the 2015 period. The underwriting expense ratio is expected to stay at an elevated rate until Arch MI U.S. reaches scale.

Corporate (Non-Underwriting) Segment

The corporate (non-underwriting) segment results include net investment income, other income (loss), corporate expenses, interest expense, 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, income taxes and items related to our non-cumulative preferred shares. Such amounts exclude the results of the 'other' segment.

Net Investment Income.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Fixed maturities	$64,365	$61,191	$123,366	$123,559
Term loan investments	5,669	4,566	10,527	8,841
Equity securities	3,984	2,742	7,740	5,421
Short-term investments	618	183	1,076	378
Other (1)	8,152	10,472	21,824	23,209
Gross investment income	82,788	79,154	164,533	161,408
Investment expenses (2)	(12,391)	(11,983)	(23,727)	(23,949)
Net investment income	$70,397	$67,171	$140,806	137,459

(1) Amounts include dividends and interest distributions on investment funds and other items.

(2) Investment expenses were approximately 0.36% of average invested assets for the 2016 second quarter, compared to 0.37% for the 2015 second quarter, and 0.33% for the six months ended June 30, 2016, compared to 0.39% for the 2015 period.

The pre-tax investment income yield, calculated based on amortized cost and on an annualized basis, was 2.08% for the 2016 second quarter, compared to 2.05% for the 2015 second quarter, and 2.12% for the six months ended June 30, 2016, compared to 2.07% for the 2015 period. The comparability of net investment income between the periods was influenced by our share repurchase program, as well as the effects of low prevailing interest rates available in the market. Yields in the future may vary based on financial market conditions, investment allocation decisions and other factors.

Other Income (Loss).

We record income or loss from certain investments using the equity method on a three month lag basis based on the availability of their financial statements, including income

or loss on our investment in Gulf Reinsurance Limited ("Gulf Re") for the period prior to the closing of our acquisition of Gulf Re on May 14, 2015. In addition, other income (loss) from time to time includes certain non-recurring items. We recorded minimal activity in the 2016 periods, compared to income of $2.2 million for the 2015 second quarter, and $0.3 million for the six months ended June 30, 2015. The 2015 amounts primarily related to Gulf Re.

Corporate Expenses.

Corporate expenses were $17.2 million for the 2016 second quarter, compared to $17.4 million for the 2015 second quarter, and $26.6 million for the six months ended June 30, 2016, compared to $26.8 million for the 2015 period. Such amounts primarily represent certain holding company costs necessary to support our worldwide insurance, reinsurance and mortgage operations and costs associated with operating as a publicly traded company.

Interest Expense.

Interest expense was $12.4 million for the 2016 second quarter, compared to $4.0 million for the 2015 second quarter, and $25.1 million for the six months ended June 30, 2016, compared to $16.7 million for the 2015 period. The lower level of interest expense in the 2015 periods primarily resulted from an $8.4 million reduction in interest expense in the 2015 second quarter on a deposit accounting liability contract. Such contract was commuted in the 2016 second

quarter (see the reinsurance segment discussion above).
Net Realized Gains or Losses.
We recorded net realized gains of $40.9 million for the 2016 second quarter, compared to net realized losses of $26.9 million for the 2015 second quarter, and net realized gains of$72.8 million for the six months ended June 30, 2016, compared to net realized gains of $38.6 million for the 2015 period. Currently, our portfolio is actively managed to maximize total return within certain guidelines. The effect of financial market movements on the investment portfolio will directly impact net realized gains and losses as the portfolio is adjusted and rebalanced. Net realized gains or losses from the sale of fixed maturities primarily results from our decisions to reduce credit exposure, to change duration targets, to rebalance our portfolios or due to relative value determinations. Net realized gains or losses also includes realized and unrealized contract gains and losses on our derivative instruments, changes in the fair value of assets and liabilities accounted for using the fair value option along with re-measurement of contingent consideration liability amounts.
Net Impairment Losses Recognized in Earnings.
We recorded $5.3 million of impairment losses for the 2016 second quarter, compared to $1.1 million for the 2015 second quarter, and $13.0 million for the six months ended June 30, 2016, compared to $6.9 million for the 2015 period. The impairment losses recorded for the 2016 periods primarily

related to corporate bonds, equities, other investments, asset backed securities and mortgage backed securities. See note 6, "Investment Information—Other-Than-Temporary Impairments," of the notes accompanying our consolidated financial statements for additional information.

Equity in Net Income (Loss) of Investment Funds Accounted for Using the Equity Method.

We recorded $8.7 million of equity in net income related to investment funds accounted for using the equity method in the 2016 second quarter, compared to $16.2 million of equity in net income for the 2015 second quarter, and $15.4 million of equity in net income for the six months ended June 30, 2016, compared to $22.1 million of equity in net income for the 2015 period. Investment funds accounted for using the equity method totaled $685.8 million at June 30, 2016, compared to $593.0 million at December 31, 2015.

Net Foreign Exchange Gains or Losses.

Net foreign exchange gains for the 2016 second quarter were $22.5 million, compared to net foreign exchange losses for the 2015 second quarter of $22.6 million. Net foreign exchange gains for the six months ended June 30, 2016 were $0.4 million, compared to net foreign exchange gains for the 2015 period of $44.3 million. Amounts in such periods were primarily unrealized and resulted from the effects of revaluing our net insurance liabilities required to be settled in foreign currencies at each balance sheet date.

Income Tax Expense.

Our income tax provision on income before income taxes resulted in an expense of 6.4% for the 2016 second quarter and 7.8% for the six months ended June 30, 2016, compared to 5.6% for the 2015 second quarter and 4.7% for the 2015 period. Our 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.

Other Segment

The 'other' segment includes the results of Watford Re. 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. See note 3, "Variable Interest Entities and Noncontrolling Interests" and note 5, "Segment Information," of the notes accompanying our consolidated financial statements for additional information on Watford Re.

CRITICAL ACCOUNTING POLICIES, ESTIMATES AND RECENT ACCOUNTING PRONOUNCEMENTS

Critical accounting policies, estimates and recent accounting pronouncements are discussed in Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our 2015 Form 10-K, updated where applicable in the notes accompanying our consolidated financial statements, including note 2, "Recent Accounting Pronouncements."

FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

Financial Condition

Investable Assets

At June 30, 2016, total investable assets of $16.88 billion included $15.18 billion managed by Arch and $1.70 billion included in the 'other' segment (i.e., attributable to Watford Re).

- Investable Assets Managed by Arch

The finance, investment and risk management ("FI&R") committee of our board of directors establishes our investment policies and sets the parameters for creating guidelines for our investment managers. The FI&R committee reviews the implementation of the investment strategy on a regular basis. Our current approach stresses preservation of capital, market liquidity and diversification of risk. While maintaining our emphasis on preservation of capital and liquidity, we expect our portfolio to become more diversified and, as a result, we may expand into areas which are not currently

part of our investment strategy. Our Chief Investment Officer administers the investment portfolio, oversees our investment managers, formulates investment strategy in conjunction with the FI&R committee and directly manages certain portions of our fixed income and equity portfolios.

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The following table summarizes the fair value of the investable assets managed by Arch:

Investable assets (1):	Estimated Fair Value	% of Total
June 30, 2016		
Fixed maturities (2)	$11,747,618	77.4
Short-term investments	853,531	5.6
Cash	442,066	2.9
Equity securities (2)	509,006	3.4
Other investments (2)	1,186,578	7.8
Investments accounted for using the equity method	685,766	4.5
Securities transactions entered into but not settled at the balance sheet date	(246,257)	(1.6)
Total investable assets managed by Arch	$15,178,308	100.0
December 31, 2015		
Fixed maturities (2)	$11,200,437	76.5
Short-term investments	587,904	4.0
Cash	444,776	3.0
Equity securities (2)	629,980	4.3
Other investments (2)	1,209,285	8.3
Investments accounted for using the equity method	592,973	4.0
Securities transactions entered into but not settled at the balance sheet date	(20,524)	(0.1)
Total investable assets managed by Arch	$14,644,831	100.0

(1) In securities lending transactions, we receive collateral in excess of the fair value of the securities pledged. For purposes of this table, we have excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value.

(2) Includes investments carried as available for sale, at fair value and at fair value under the fair value option.

At June 30, 2016, our fixed income portfolio, which includes fixed maturity securities and short-term investments, had average credit quality ratings from Standard & Poor's Rating Services ("S&P")/Moody's of "AA/Aa2" and an average yield to maturity (embedded book yield), before investment expenses, of 1.92%. At December 31, 2015, our fixed income portfolio had average credit quality ratings from S&P/Moody's of "AA/Aa2" and an average yield to maturity of 2.16%. Our investment portfolio had an average effective duration of 3.85 years at June 30, 2016, compared to 3.43 years at December 31, 2015. At June 30, 2016, approximately $10.97 billion, or 72%, of total investable assets managed by Arch were internally managed, compared to $10.01 billion, or 68%, at December 31, 2015.

The following table summarizes our fixed maturities and fixed maturities pledged under securities lending agreements ("Fixed Maturities") by type:

	Estimated Fair Value	% of Total
June 30, 2016		
Corporate bonds	$3,210,603	27.3
Mortgage backed securities	674,451	5.7
Municipal bonds	1,897,128	16.1
Commercial mortgage backed securities	624,391	5.3
U.S. government and government agencies	2,701,042	23.0
Non-U.S. government securities	1,274,237	10.8
Asset backed securities	1,365,766	11.6

Total	$11,747,618	100.0
December 31, 2015		
Corporate bonds	$2,960,694	26.4
Mortgage backed securities	812,557	7.3
Municipal bonds	1,626,281	14.5
Commercial mortgage backed securities	764,152	6.8
U.S. government and government agencies	2,423,455	21.6
Non-U.S. government securities	992,792	8.9
Asset backed securities	1,620,506	14.5
Total	$11,200,437	100.0

At June 30, 2016, below-investment grade securities comprised approximately 5% of our Fixed Maturities, compared to 5% at December 31, 2015. In accordance with our investment strategy, we invest in high yield fixed income securities which are included in “Corporate bonds.” Upon issuance, these securities are typically rated below investment grade (i.e., rating assigned by the major rating agencies of “BB+” or less). At June 30, 2016, corporate bonds represented 62% of the total below investment grade securities at fair value, mortgage backed securities represented 20% of the total and 18% were in other classes. At December 31, 2015, corporate bonds represented 70% of the total below investment grade securities at fair value, mortgage backed securities represented 13% of the total and 17% were in other classes. Unrealized losses include the impact of foreign exchange movements on certain securities denominated in foreign currencies and, as such, the amount of securities in an unrealized loss position fluctuates due to foreign currency movements.

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The following table provides the credit quality distribution of our Fixed Maturities. For individual fixed maturities, S&P ratings are used. In the absence of an S&P rating, ratings from Moody's are used, followed by ratings from Fitch Ratings.

	Estimated Fair Value	% of Total
June 30, 2016		
U.S. government and gov't agencies (1)	$3,364,709	28.6
AAA	3,421,385	29.1
AA	2,255,666	19.2
A	1,541,075	13.1
BBB	525,084	4.5
BB	232,859	2.0
B	151,549	1.3
Lower than B	96,726	0.8
Not rated	158,565	1.3
Total	$11,747,618	100.0
December 31, 2015		
U.S. government and gov't agencies (1)	$3,060,869	27.3
AAA	4,000,750	35.7
AA	1,651,760	14.7
A	1,431,138	12.8
BBB	457,251	4.1
BB	203,426	1.8
B	138,770	1.2
Lower than B	130,545	1.2
Not rated	125,928	1.1
Total	$11,200,437	100.0

(1) Includes U.S. government-sponsored agency mortgage backed securities and agency commercial mortgage backed securities.

The following table provides information on the severity of the unrealized loss position as a percentage of amortized cost for all Fixed Maturities which were in an unrealized loss position:

	June 30, 2016		
Severity of gross unrealized losses:	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
June 30, 2016			
0-10%	$1,171,547	$(20,224)	31.7
10-20%	215,026	(36,708)	57.6
20-30%	21,037	(5,923)	9.3
Greater than 30%	1,452	(875)	1.4
Total	$1,409,062	$(63,730)	100.0
December 31, 2015			
0-10%	$6,956,754	$(74,229)	54.4
10-20%	173,441	(28,789)	21.1
20-30%	86,997	(26,227)	19.2
Greater than 30%	10,638	(7,160)	5.2

Total	$7,227,830	$(136,405)	100.0

The following table provides information on the severity of the unrealized loss position as a percentage of amortized cost for non-investment grade Fixed Maturities which were in an unrealized loss position:

	June 30, 2016		
Severity of gross unrealized losses:	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
June 30, 2016			
0-10%	$137,622	$(3,391)	5.3
10-20%	21,986	(3,809)	6.0
20-30%	4,895	(1,530)	2.4
Greater than 30%	1,353	(818)	1.3
Total	$165,856	$(9,548)	15.0
December 31, 2015			
0-10%	$176,343	$(5,139)	3.8
10-20%	28,707	(4,807)	3.5
20-30%	12,500	(4,410)	3.2
Greater than 30%	10,520	(7,107)	5.2
Total	$228,070	$(21,463)	15.7

We determine estimated recovery values for our Fixed Maturities following a review of the business prospects, credit ratings, estimated loss given default factors and information received from asset managers and rating agencies for each security. For structured securities, we utilize underlying data, where available, for each security provided by asset managers and additional information from credit agencies in order to determine an expected recovery value for each security. The analysis provided by the asset managers includes expected cash flow projections under base case and stress case scenarios which modify expected default expectations and loss severities and slow down prepayment assumptions.

The following table summarizes our top ten exposures to fixed income corporate issuers by fair value at June 30, 2016, excluding guaranteed amounts and covered bonds:

	Estimated Fair Value	Credit Rating (1)
Apple Inc.	$ 71,396	AA+/Aa1
Wells Fargo & Company	70,956	A+/Aa3
Coca-Cola Co	70,063	AA-/Aa3
Microsoft Corporation	61,400	AAA/Aaa
Oracle Corporation	59,000	AA-/A1
MassMutual Global Funding II	54,483	AA+/Aa2
Royal Dutch Shell PLC	53,894	A+/Aa2
Anheuser Busch Inbev SA	45,574	A-/A3
JPMorgan Chase & Co	42,737	A-/A3
Toyota Motor Corporation	42,733	AA-/Aa3
Total	$ 572,236	

(1) Average credit ratings as assigned by S&P and Moody's, respectively.

Our portfolio includes investments, such as mortgage-backed securities, which are subject to prepayment risk. At June 30, 2016, our investments in residential mortgage-backed securities ("RMBS") amounted to approximately $674.5

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million, or 4.4% of total investable assets managed by Arch, compared to $812.6 million, or 5.5%, at December 31, 2015. As with other fixed income investments, the fair value of these securities fluctuates depending on market and other general economic conditions and the interest rate environment. Changes in interest rates can expose us to changes in the prepayment rate on these investments. In periods of declining interest rates, mortgage prepayments generally increase and RMBS are prepaid more quickly, requiring us to reinvest the proceeds at the then current market rates. Conversely, in periods of rising rates, mortgage prepayments generally fall, preventing us from taking full advantage of the higher level of rates. However, economic conditions may curtail prepayment activity if refinancing becomes more difficult, thus limiting prepayments on RMBS.
The residential mortgage market in the U.S has experienced a variety of difficulties in certain underwriting periods and is only recently recovering from a period of severe home price depreciation. It is uncertain whether this recovery will continue. A decline or an extended flattening in residential property values may result in additional increases in delinquencies and losses on residential mortgage loans generally, especially with respect to any residential mortgage loans where the aggregate loan amounts (including any subordinate loans) are close to or greater than the related property values. These developments may have a significant adverse effect on the prices of loans and securities, including those in our investment portfolio. The situation continues to have wide ranging consequences, including downward pressure on economic growth and the potential for increased insurance and reinsurance exposures, which could have an adverse impact on our results of operations, financial condition, business and operations.

Our portfolio also includes commercial mortgage backed securities (“CMBS”). At June 30, 2016, CMBS constituted approximately $624.4 million, or 4.1% of total investable assets managed by Arch, compared to $764.2 million, or 5.2%, at December 31, 2015. The commercial real estate market may experience price deterioration, which could lead to delinquencies and losses on commercial real estate mortgages.

The following table provides information on our non-agency RMBS and non-agency CMBS at June 30, 2016 by issuance year, excluding amounts guaranteed by U.S. government agencies. Non-agency RMBS and non-agency CMBS were 0.6% and 3.6% of total investable assets managed by Arch, respectively.

Issuance Year	Amortized Cost	Average Credit Quality	Estimated Fair Value
2003-2008	$ 64,394	CC-	$ 68,802
2009	453	AA	453
2010	1,067	NR	1,142
2014	2,240	NR	2,205
2015	16,215	A	16,434
2016	977	C-	986
Total RMBS	$ 85,346	CC+	$ 90,022
2002-2008	27,672	A	27,909
2009	534	BBB	535
2010	8,675	AAA	8,914
2011	576	AAA	579
2012	34,940	AAA	35,575
2013	84,173	AA	86,924
2014	123,512	AA+	125,630
2015	157,786	AAA	161,574
2016	96,050	AA+	97,513
Total CMBS	$ 533,918	AA+	$ 545,153

Non-Agency Non-Agency

Additional Statistics:	RMBS		CMBS (1)	
Weighted average loan age (months)	114		32	
Weighted average life (months) (2)	47		81	
Weighted average loan-to-value % (3)	62.5	%	56.8	%
Total delinquencies (4)	15.6	%	0.7	%
Current credit support % (5)	8.0	%	37.1	%

(1) Loans defeased with government/agency obligations were not material to the collateral underlying our CMBS holdings.

(2) The weighted average life for RMBS is based on the interest rates in effect at June 30, 2016. The weighted average life for CMBS reflects the average life of the collateral underlying our CMBS holdings.

(3) The range of loan-to-values is 13% to 96% on RMBS and 3% to 200% on CMBS.

(4) Total delinquencies includes 60 days and over.

(5) Current credit support percentage represents the percentage for a collateralized mortgage obligation (“CMO”) or CMBS class/tranche from other subordinate classes in the same CMO or CMBS deal.

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The following table provides information on our asset backed securities ("ABS") at June 30, 2016. ABS were 9.0% of total investable assets managed by Arch, respectively.

Sector	Amortized Cost	Weighted Average Credit Quality	Credit Support		Estimated Fair Value
Credit cards	$706,330	AAA	16	%	$715,273
Autos	264,955	AAA	26	%	266,468
Loans	189,013	A+	12	%	186,179
Equipment	119,367	AA-	2	%	118,574
Other (1)	78,022	A	20	%	79,272
Total ABS (2)	$1,357,687	AA+			$1,365,766

(1) Including rate reduction bonds, commodities, home equity, U.K. securitized and other.
(2) The effective duration of the total ABS was 1.9 years at June 30, 2016.

At June 30, 2016, our fixed income portfolio included $51.1 million par value in sub-prime securities with a fair value of $41.8 million and average credit quality ratings from S&P/Moody's of "CCC/Caa3." At December 31, 2015, our fixed income portfolio included $45.5 million par value in sub-prime securities with a fair value of $35.9 million and average credit quality ratings from S&P/Moody's of "CCC/Caa3." Such amounts were primarily in the home equity sector of our ABS, with the balance in other ABS, RMBS and CMBS sectors. We define sub-prime mortgage-backed securities as investments in which the underlying loans primarily exhibit one or more of the following characteristics: low FICO scores, above-prime interest rates, high loan-to-value ratios or high debt-to-income ratios.

The following table provides information on the fair value of our Eurozone investments at June 30, 2016:

Country (1)	Sovereign (2)	Corporate Bonds	Other (3)	Total
Netherlands	$115,660	$87,344	$11,674	$214,678
Germany	84,677	26,803	26,991	138,471
France	14,971	38,133	8,421	61,525
Luxembourg	—	23,086	5,565	28,651
Supranational (4)	17,131	—	—	17,131
Belgium	5,187	8,555	—	13,742
Ireland	—	1,044	6,198	7,242
Spain	—	—	3,168	3,168
Italy	—	—	1,147	1,147
Austria	—	900	—	900
Greece	890	—	—	890
Total	$238,516	$185,865	$63,164	$487,545

(1) The country allocations set forth in the table are based on various assumptions made by us in assessing the country in which the underlying credit risk resides, including a review of the jurisdiction of organization, business operations and other factors. Based on such analysis, we do not believe that we have any other Eurozone investments at June 30, 2016.
(2) Includes securities issued and/or guaranteed by Eurozone governments.
(3) Includes bank loans, equities and other.
(4) Includes World Bank, European Investment Bank, International Finance Corp. and European Bank for Reconstruction and Development.

At June 30, 2016, our equity portfolio included $509.0 million of equity securities, compared to $630.0 million at December 31, 2015. Our equity portfolio includes publicly traded common stocks in the natural resources, energy, consumer staples and other sectors.

The following table provides information on the severity of the unrealized loss position as a percentage of cost for all equity securities classified as available for sale which were in an unrealized loss position:

	June 30, 2016		
Severity of gross unrealized losses:	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
June 30, 2016			
0-10%	$118,525	$(3,836)	34.4
10-20%	30,520	(4,401)	39.4
20-30%	5,413	(1,680)	15.0
Greater than 30%	2,331	(1,246)	11.2
Total	$156,789	$(11,163)	100.0
December 31, 2015			
0-10%	$176,451	$(5,926)	33.3
10-20%	39,728	(6,528)	36.7
20-30%	13,700	(4,164)	23.4
Greater than 30%	2,396	(1,178)	6.6
Total	$232,275	$(17,796)	100.0

On a quarterly basis, we evaluate the unrealized losses of our equity securities by issuer and forecast a reasonable period of time by which the fair value of the securities would increase and we would recover the cost basis. All of the unrealized losses on equity securities were on holdings which have been in a continual unrealized loss position for less than 12 months at June 30, 2016. We believe that a reasonable period of time exists to allow for recovery of the cost basis of our equity securities that are in an unrealized loss position at June 30, 2016.

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The following table summarizes our other investments:

	June 30, 2016	December 31, 2015
Available for sale:		
Asian and emerging markets	$109,767	$ 206,861
Investment grade fixed income	33,549	31,370
Credit related funds	1,698	22,512
Other	37,943	39,733
Total available for sale	182,957	300,476
Fair value option:		
Term loan investments (par value: $358,443 and $356,096)	364,424	345,855
Mezzanine debt funds	117,441	121,589
Credit related funds	236,184	219,049
Investment grade fixed income	65,391	63,053
Asian and emerging markets	112,265	34,761
Other (1)	107,916	124,502
Total fair value option	1,003,621	908,809
Total	$1,186,578	$ 1,209,285

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

Certain of our other investments are in investment funds for which we have 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 our 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 our investment is eligible to be redeemed, the time to redeem such investment can take weeks or months following the notification.

Certain of our investment managers may use leverage to achieve a higher rate of return on their assets under management, primarily those included in "other investments available for sale, at fair value," "investments accounted for using the fair value option" and "investments accounted for using the equity method" on our balance sheet. While leverage presents opportunities for increasing the total return of such investments, it may increase losses as well. Accordingly, any event that adversely affects the value of the underlying holdings would be magnified to the extent leverage is used and our potential losses would be magnified. In addition, the structures used to generate leverage may lead to such investments being required to meet covenants based

on market valuations and asset coverage. Market valuation declines could force the sale of investments into a depressed market, which may result in significant additional losses. Alternatively, the levered investments may attempt to delever by raising additional equity or potentially changing the terms of the established financing arrangements. We may choose to participate in the additional funding of such investments.

Our investment strategy allows for the use of derivative instruments. We utilize various derivative instruments such as futures contracts to enhance investment performance, replicate investment positions or manage market exposures and duration risk that would be allowed under our investment guidelines if implemented in other ways. See note 8, "Derivative Instruments," of the notes accompanying our consolidated financial statements for additional disclosures concerning derivatives.

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. See note 7, “Fair Value,” of the notes accompanying our consolidated financial statements for a summary of our financial assets and liabilities measured at fair value at June 30, 2016 and December 31, 2015 segregated by level in the fair value hierarchy.

Investable Assets in the ‘Other’ Segment

Investable assets in the ‘other’ segment are managed by Watford Re. The board of directors of Watford Re establishes their investment policies and guidelines. Watford Re’s investments are accounted for using the fair value option with changes in the carrying value of such investments recorded in net realized gains or losses.

The following table summarizes investable assets in the ‘other’ segment:

	June 30, 2016	December 31, 2015
Cash	$74,525	$ 108,550
Investments accounted for using the fair value option:		
Term loan investments (par value: $757,184 and $841,047)	662,119	762,162
Fixed maturities	670,180	569,022
Short-term investments	344,797	285,923
Equity securities	740	—
Total investments accounted for using the fair value option	1,677,836	1,617,107
Securities sold but not yet purchased	(54,668)	(30,583)
Securities transactions entered into but not settled at the balance sheet date	5,738	1,033
Total investable assets included in ‘other’ segment	$1,703,431	$ 1,696,107

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Premiums Receivable and Reinsurance Recoverables

At June 30, 2016, 83.4% of premiums receivable of $1.26 billion represented amounts not yet due, while amounts in excess of 90 days overdue were 4.2% of the total. At December 31, 2015, 80.8% of premiums receivable of $983.4 million represented amounts not yet due, while amounts in excess of 90 days overdue were 5.3% of the total. Our reserves for doubtful accounts were approximately $18.1 million at June 30, 2016, compared to $15.7 million at December 31, 2015.

At June 30, 2016 and December 31, 2015, approximately 74.7% and 77.9% of reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of $2.03 billion and $1.87 billion, respectively, were due from carriers which had an A.M. Best rating of “A-” or better while 25.3% and 22.1%, respectively, were from companies not rated. For items not rated, over 90% of such amount was collateralized through reinsurance trusts or letters of credit at June 30, 2016 and December 31, 2015. The largest reinsurance recoverables from any one carrier was approximately 3.3% and 3.4%, respectively, of total shareholders’ equity available to Arch.

Approximately 8.7% of the $31.2 million of paid losses and loss adjustment expenses recoverable at June 30, 2016 were more than 90 days overdue, compared to 3.9% of the $38.5 million of paid losses and loss adjustment expenses recoverable at December 31, 2015. No collection issues were indicated on the amount in excess of 90 days overdue at June 30, 2016.

The effects of reinsurance on written and earned premiums and losses and loss adjustment expenses (“LAE”) with unaffiliated reinsurers were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Premiums written:				
Direct	$839,844	$776,996	$1,697,954	$1,571,429
Assumed	490,092	422,213	1,069,948	969,802
Ceded	(306,373)	(255,629)	(623,104)	(530,656)
Net	$1,023,563	$943,580	$2,144,798	$2,010,575
Premiums earned:				
Direct	$795,358	$746,837	$1,575,128	$1,481,054
Assumed	473,331	428,254	894,389	825,505
Ceded	(262,704)	(231,653)	(511,953)	(452,857)
Net	$1,005,985	$943,438	$1,957,564	$1,853,702
Losses and LAE:				
Direct	$525,719	$462,967	$981,052	$893,808
Assumed	265,321	214,103	457,781	373,648
Ceded	(206,448)	(157,644)	(331,292)	(254,314)
Net	$584,592	$519,426	$1,107,541	$1,013,142

Reserves for Losses and Loss Adjustment Expenses

We establish reserves for losses and loss adjustment expenses (“Loss Reserves”) which represent estimates involving actuarial and statistical projections, at a given point in time, of our expectations of the ultimate settlement and administration costs of losses incurred. Estimating Loss Reserves is inherently difficult, which is exacerbated by the fact that we have relatively limited historical experience upon which to base such estimates. We utilize actuarial models as well as available historical insurance industry loss ratio experience and loss development patterns to assist in the establishment of Loss Reserves. Actual losses and loss adjustment expenses paid will deviate, perhaps substantially, from the reserve estimates reflected in our financial statements.

At June 30, 2016 and December 31, 2015, our Loss Reserves, net of unpaid losses and loss adjustment expenses recoverable, by type and by operating segment were as follows:

	June 30, 2016	December 31, 2015
Insurance segment:		
Case reserves	$1,406,699	$ 1,434,986
IBNR reserves	3,158,524	3,080,122
Total net reserves	4,565,223	4,515,108
Reinsurance segment:		
Case reserves	742,901	699,860
Additional case reserves	104,827	99,343
IBNR reserves	1,566,024	1,593,186
Total net reserves	2,413,752	2,392,389
Mortgage segment:		
Case reserves	68,139	86,278
IBNR reserves	29,588	23,211
Total net reserves	97,727	109,489
Other segment:		
Case reserves	91,524	64,875
Additional case reserves	8,921	5,199
IBNR reserves	290,732	209,353
Total net reserves	391,177	279,427
Total:		
Case reserves	2,309,263	2,285,999
Additional case reserves	113,748	104,542
IBNR reserves	5,044,868	4,905,872
Total net reserves	$7,467,879	$ 7,296,413

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At June 30, 2016 and December 31, 2015, the insurance segment's Loss Reserves by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

	June 30, 2016	December 31, 2015
Insurance segment:		
Professional lines (1)	$1,340,244	$ 1,346,882
Construction and national accounts	915,105	876,278
Excess and surplus casualty (2)	688,296	682,286
Programs	685,522	687,405
Property, energy, marine and aviation	306,599	330,104
Travel, accident and health	72,776	64,537
Lenders products	43,765	44,273
Other (3)	512,916	483,343
Total net reserves	$4,565,223	$ 4,515,108

(1) Includes professional liability, executive assurance and healthcare business.
(2) Includes casualty and contract binding business.
(3) Includes alternative markets, excess workers' compensation and surety business.

At June 30, 2016 and December 31, 2015, the reinsurance segment's Loss Reserves by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

	June 30, 2016	December 31, 2015
Reinsurance segment:		
Casualty (1)	$1,400,287	$ 1,386,084
Other specialty (2)	434,450	420,865
Property excluding property catastrophe (3)	294,235	301,757
Marine and aviation	150,062	137,969
Property catastrophe	80,074	94,991
Other (4)	54,644	50,723
Total net reserves	$2,413,752	$ 2,392,389

(1) Includes executive assurance, professional liability, workers' compensation, excess motor, healthcare and other.
(2) Includes non-excess motor, surety, accident and health, workers' compensation catastrophe, agriculture, trade credit and other.
(3) Includes facultative business.
(4) Includes life, casualty clash and other.

Mortgage Operations Supplemental Information

Arch MI U.S. generated $6.42 billion of new insurance written ("NIW") during the 2016 second quarter, of which approximately 76% was from banks and other non-credit union mortgage originators. NIW represents the original principal balance of all loans that received coverage during the period.

The following tables provide details on the NIW generated by Arch MI U.S. for the last two quarters by credit quality and loan-to-value ("LTV"):

(U.S. Dollars in millions)	Three Months Ended			
	June 30, 2016		March 31, 2016	
	Amount	%	Amount	%
Total new insurance written (NIW)	$6,420		$2,906	
Total NIW by credit quality (FICO score):				
>=740	$3,950	61.5	$1,808	62.2

680-739	2,162	33.7	959	33.0
620-679	307	4.8	139	4.8
<620	1	—	—	—
Total	$6,420	100.0	$2,906	100.0
Total NIW by LTV:				
95.01% and above	$551	8.6	$175	6.0
90.01% to 95.00%	2,983	46.5	1,233	42.4
85.01% to 90.00%	2,078	32.4	1,021	35.1
85.01% and below	808	12.6	477	16.4
Total	$6,420	100.0	$2,906	100.0
Total NIW purchase vs. refinance:				
Purchase	$5,309	82.7	$2,055	70.7
Refinance	1,111	17.3	851	29.3
Total	$6,420	100.0	$2,906	100.0

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The mortgage segment’s insurance in force (“IIF”) and risk in force (“RIF”) were as follows at the end of the last two quarters:

(U.S. Dollars in millions)	June 30, 2016		March 31, 2016	
	Amount	%	Amount	%
Insurance In Force (IIF) (1):				
U.S. mortgage insurance	$33,367	30.7	$28,433	30.9
Mortgage reinsurance	22,242	20.5	22,393	24.3
Other (3)	52,926	48.8	41,172	44.8
Total	$108,535	100.0	$91,998	100.0
Risk In Force (RIF) (2):				
U.S. mortgage insurance	$8,396	64.8	$7,165	62.5
Mortgage reinsurance	2,567	19.8	2,661	23.2
Other (3)	1,993	15.4	1,636	14.3
Total	$12,956	100.0	$11,462	100.0
Ending number of policies in force	172,666		153,984	

(1) Represents the aggregate dollar amount of each insured mortgage loan’s current principal balance.

(2) Represents the aggregate dollar amount of each insured mortgage loan’s current principal balance multiplied by the insurance coverage percentage specified in the policy for insurance policies issued and after contract limits and/or loss ratio caps for credit risk-sharing or reinsurance transactions.

(3) Includes GSE credit risk-sharing products and international insurance business.

The following tables provide supplemental disclosures for our mortgage segment’s U.S. mortgage insurance operations related to RIF at the end of the last two quarters:

(U.S. Dollars in millions)	June 30, 2016		March 31, 2016	
	Amount	%	Amount	%
Total RIF by credit quality (FICO):				
>=740	$4,766	56.8	$3,995	55.8
680-739	2,779	33.1	2,354	32.9
620-679	753	9.0	712	9.9
<620	98	1.2	104	1.5
Total	$8,396	100.0	$7,165	100.0
Weighted average FICO score	741		739	
Total RIF by LTV:				
95.01% and above	$1,135	13.5	$1,052	14.7
90.01% to 95.00%	4,379	52.2	3,677	51.3
85.01% to 90.00%	2,438	29.0	2,056	28.7
85.00% and below	444	5.3	380	5.3
Total	$8,396	100.0	$7,165	100.0
Weighted average LTV	92.9 %		93.0 %	

(U.S. Dollars in millions)	June 30, 2016		March 31, 2016	
	Amount	%	Amount	%
Total RIF by State:				
California	$727	8.7	$622	8.7
Wisconsin	620	7.4	585	8.2

Texas	469	5.6	401	5.6
Florida	422	5.0	345	4.8
Minnesota	351	4.2	319	4.5
Massachusetts	330	3.9	262	3.7
Virginia	300	3.6	237	3.3
Washington	279	3.3	261	3.6
Illinois	279	3.3	218	3.0
Ohio	260	3.1	212	3.0
Others	4,359	51.9	3,703	51.7
Total	$8,396	100.0	$7,165	100.0
Coverage ratio (1)	25.2 %		25.2 %	
Analysts' persistency (2)	75.6 %		74.2 %	
Risk-to-capital ratio (3)	12.4:1		11.1:1	

(1) Represents the end of period RIF divided by end of period IIF.

(2) Represents the percentage of IIF at the beginning of a 12-month period that remained in force at the end of the period.

(3) Represents total current (non-delinquent) RIF, net of reinsurance, divided by total statutory capital. Ratio calculated for Arch MI U.S. only (estimate for June 30, 2016).

The following table provides supplemental disclosures for our mortgage segment's U.S. mortgage insurance operations related to insured loans and loss metrics for the last two quarters:

(U.S. Dollars in thousands, except loan count)	Three Months Ended	
	June 30, 2016	March 31, 2016
Roll-forward of insured loans in default:		
Beginning delinquent number of loans	2,325	2,702
New notices	1,033	1,048
Cures	(919)	(1,206)
Paid claims	(193)	(222)
Delinquent rescissions and denials	(1)	3
Ending delinquent number of loans	2,245	2,325
Ending percentage of loans in default	1.3 %	1.5 %
Losses:		
Number of claims paid	193	222
Total paid claims	$7,744	$9,168
Average per claim	$40.1	$41.3
Severity (1)	94.8 %	93.9 %
Average reserve per default (in thousands)	$27.8	$32.1

(1) Represents total paid claims divided by RIF of loans for which claims were paid.

Shareholders' Equity and Book Value per Common Share

Total shareholders' equity available to Arch was $6.70 billion at June 30, 2016, compared to $6.20 billion at December 31, 2015. The increase was primarily attributable to net income, reflecting contributions from both underwriting and investing activities.

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The following table presents the calculation of book value per common share:

(U.S. dollars in thousands, except share data)	June 30, 2016	December 31, 2015
Total shareholders’ equity available to Arch	$ 6,703,922	$ 6,204,881
Less preferred shareholders’ equity	325,000	325,000
Common shareholders’ equity available to Arch	$ 6,378,922	$ 5,879,881
Common shares outstanding, net of treasury shares (1)	122,572,260	122,627,783
Book value per common share	$ 52.04	$ 47.95

(1) Excludes the effects of 7,222,726 and 7,482,462 stock options and 405,303 and 413,364 restricted stock units outstanding at June 30, 2016 and December 31, 2015, respectively.

Liquidity and Capital Resources

We have not included Watford Re in the following section as we do not guarantee or provide credit support for Watford Re, and 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 reinsurance transactions.

ACGL is a holding company whose assets primarily consist of the shares in its subsidiaries. Generally, ACGL depends on its available cash resources, liquid investments and dividends or other distributions from its subsidiaries to make payments, including the payment of debt service obligations and operating expenses it may incur and any dividends or liquidation amounts with respect to the non-cumulative preferred shares and common shares. ACGL’s readily available cash, short-term investments and marketable securities, excluding amounts held by our regulated insurance and reinsurance subsidiaries, totaled $7.3 million at June 30, 2016, compared to $6.9 million at December 31, 2015. For the six months ended June 30, 2016, ACGL received dividends of $121.4 million from Arch Reinsurance Ltd. (“Arch Re Bermuda”), our Bermuda-based reinsurer and insurer.

The ability of our regulated insurance and reinsurance subsidiaries to pay dividends or make distributions or other payments to us is dependent on their ability to meet applicable regulatory standards. Under Bermuda law, Arch Re Bermuda is required to maintain statutory capital (i.e., the amount by which the value of its statutory assets exceed its statutory liabilities) equal to or in excess of its minimum solvency margin equal to the greatest of (1) $100.0 million, (2) 50% of net premiums written (being gross premiums written less any premiums ceded by Arch Re Bermuda, but Arch Re Bermuda may not deduct more than 25% of gross premiums when computing net premiums written), (3) 15% of net aggregated losses and loss expense provisions and other insurance reserves and (4) 25% of its enhanced capital requirement (“ECR”) as reported at the end of the relevant year. Arch Re Bermuda is prohibited from declaring or paying any dividends during any financial year if it is not in

compliance with its ECR, minimum solvency margin or minimum liquidity ratio. In addition, Arch Re Bermuda is prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year’s statutory balance sheet) unless it files, at least seven days before payment of such dividends, with the Bermuda Monetary Authority (“BMA”) an affidavit stating that it will continue to meet the required margins. In addition, Arch Re Bermuda is prohibited, without prior approval of the BMA, from reducing by 15% or more its total statutory capital, as set out in its previous year’s statutory financial statements. As a Class 4 insurer, Arch Re Bermuda is required to maintain available statutory capital and surplus pertaining to its general business at a level equal to or in excess of its ECR which is established by reference to either the BSCR model (“BSCR”) or an approved internal capital model. At December 31, 2015, as determined under Bermuda law, Arch Re Bermuda had statutory capital of $2.45 billion ($2.40 billion at December 31, 2014) and statutory capital and surplus of $5.43 billion ($5.42 billion at December 31, 2014), which amounts were in compliance with Arch Re Bermuda’s ECR at such date. Such amounts include ownership interests in U.S. insurance and reinsurance subsidiaries. Accordingly, Arch Re Bermuda can pay approximately $1.24 billion to ACGL during the remainder of 2016 without providing an affidavit to the BMA, as discussed above. Under BMA guidelines, the value of the assets of our insurance group (i.e., the group of companies that conducts exclusively, or mainly, insurance business) must exceed the amount of the group’s liabilities by the aggregate minimum margin of solvency of each qualifying member of the group (the “Group MSM”). A member is a qualifying member of the insurance group if it is subject to solvency

requirements in the jurisdiction in which it is registered. We were in compliance with the Group MSM at December 31, 2015.
Our U.S. insurance and reinsurance subsidiaries are subject to insurance laws and regulations in the jurisdictions in which they operate. The ability of our regulated insurance subsidiaries to pay dividends or make distributions is dependent on their ability to meet applicable regulatory standards. These regulations include restrictions that limit the amount of dividends or other distributions, such as loans or cash advances, available to shareholders without prior approval of the insurance regulatory authorities. Dividends or distributions, if any, made by Arch Re U.S. would result in an increase in available capital at Arch Capital Group (U.S.) Inc. ("Arch-U.S."), a subsidiary of ACGL. For the six months ended June 30, 2016, Arch-U.S. received dividends of $25 million from Arch Re U.S. Arch Re U.S. can declare a maximum of approximately $95 million of dividends during the remainder of 2016 subject to the approval of the Commissioner of the Delaware Department of Insurance ("Commissioner"). In addition, with respect to dividends in excess of the $95 million (extraordinary dividend), no payment can be made until (1) 30 days after the Commissioner has received notice of the declaration thereof and has not within such period disapproved such payment;

or (2) the Commissioner shall have approved the payment within the 30-day period. Delaware insurance laws also require that the statutory surplus of Arch Re U.S. following any dividend or distribution be reasonable in relation to its outstanding liabilities and adequate to its financial needs.

In April 2015, the GSEs published comprehensive, revised requirements, known as the Private Mortgage Insurer Eligibility Requirements or "PMIERs." The PMIERs became effective December 31, 2015 and apply to Arch MI U.S., which is a GSE-approved mortgage insurer. They do not apply to Arch Mortgage Guaranty Company, which insures mortgages that are not intended to be sold to the GSEs, and it is therefore not approved by either GSE as an eligible mortgage insurer. In addition to extensive requirements relating to the operation of our mortgage insurance business, the PMIERs include revised financial requirements for mortgage insurers. No later than March 1, 2016, mortgage insurers were required to certify to the GSEs that they meet all of the requirements of the PMIERs or identify specific requirements that they do not meet. If a mortgage insurer is unable to meet the financial requirements of the PMIERs, it was required to submit by March 31, 2016 a transition plan to the GSEs for their review and approval. Mortgage insurers that have not met the financial requirements of the PMIERs by June 30, 2017 will be subject to remediation actions by the GSEs.

The amount of assets required to satisfy the revised financial requirements of the PMIERs at any point in time will be affected by many factors, including macro-economic conditions, the size and composition of Arch MI U.S.'s mortgage insurance portfolio at the point in time, and the amount of risk ceded to reinsurers that may be deducted by Arch MI U.S. in its calculation of "minimum required assets." Arch MI U.S. satisfied the PMIERs' financial requirements as of June 30, 2016. Under the PMIERs, Arch MI U.S. is deemed to be a "newly-approved insurer." As a result of this status, until January 2017, Arch MI U.S. is subject to additional PMIER requirements, including that Arch MI U.S. is prohibited from paying dividends to affiliates or making any investment, contribution or loan to any affiliate.

In addition to meeting applicable regulatory standards, the ability of our insurance and reinsurance subsidiaries to pay dividends to intermediate parent companies owned by Arch Re Bermuda is also constrained by our dependence on the financial strength ratings of our insurance and reinsurance subsidiaries from independent rating agencies. The ratings from these agencies depend to a large extent on the capitalization levels of our insurance and reinsurance subsidiaries.

We believe that ACGL has sufficient cash resources and available dividend capacity to service its indebtedness and other current outstanding obligations.

Our insurance and reinsurance subsidiaries are required to maintain assets on deposit, which primarily consist of fixed maturities, with various regulatory authorities to support their operations. The assets on deposit are available to settle

insurance and reinsurance liabilities to third parties. Our 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. At June 30, 2016 and December 31, 2015, such amounts approximated $5.65 billion and $5.20 billion, respectively, excluding amounts related to the 'other' segment.

Our non-U.S. operations account for a significant percentage of our net premiums written. In general, the business written by our non-U.S. operations, which is heavily weighted towards reinsurance business, has been more profitable than the business written in our U.S. operations, which is weighted more towards insurance business. In general, our reinsurance segment has operated at a higher margin than our insurance segment, which is due to prevailing market conditions and the mix and type of business written. Historically, the most profitable line of business has been catastrophe-exposed property reinsurance, which is written primarily in our non-U.S. operations. Additionally, a significant component of our pre-tax income is generated through our investment performance. We hold a substantial amount of our investable assets in our non-U.S. operations and, accordingly, a large portion of our investment income is produced in our non-U.S. operations. In addition, ACGL, through its subsidiaries, provides financial support to certain of its insurance subsidiaries and affiliates, through certain reinsurance arrangements beneficial to the ratings of such subsidiaries. Our U.S.-based insurance and reinsurance groups enter into separate reinsurance arrangements with Arch Re Bermuda covering individual lines of business. For the 2015 calendar year, the U.S. groups ceded business to Arch Re Bermuda at an aggregate net cession rate (i.e., net of third party reinsurance) of approximately 53%, compared to 53% for 2014. All of the above factors have resulted in the non-U.S. group providing a higher

contribution to our overall pre-tax income in the current period than the percentage of net premiums written would indicate.

Except as described in the above paragraph, or where express reinsurance, guarantee or other financial support contractual arrangements are in place, each of ACGL's subsidiaries or affiliates is solely responsible for its own liabilities and commitments (and no other ACGL subsidiary or affiliate is so responsible). Any reinsurance arrangements, guarantees or other financial support contractual arrangements that are in place are solely for the benefit of the ACGL subsidiary or affiliate involved and third parties (creditors or insureds of such entity) are not express beneficiaries of such arrangements.

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The following table summarizes our cash flows from operating, investing and financing activities, excluding amounts related to the 'other' segment (i.e., Watford Re). See Note 3, "Variable Interest Entities," for cash flows related to Watford Re.

	Six Months Ended June 30,	
	2016	2015
Total cash provided by (used for):		
Operating activities	$410,213	$247,361
Investing activities	(341,885)	95,779
Financing activities	(65,158)	(346,961)
Effects of exchange rate changes on foreign currency cash	(8,991)	(414)
Increase (decrease) in cash	$(5,821)	$(4,235)

•Cash provided by operating activities for the six months ended June 30, 2016 was higher than in the 2015 period, primarily reflecting a higher level of premiums collected. The 2015 period also reflected a higher level of outflows related to the Company's mortgage operations.
•Cash used for investing activities for the six months ended June 30, 2016 was higher than in the 2015 period. Activity for the 2016 period reflected higher net purchases of investments than in the 2015 period, reflecting the investment of operating cash flows and the lower level of repurchases under our share repurchase program in the 2016 period.
•Cash used for financing activities for the six months ended June 30, 2016 was lower than in the 2015 period, primarily due to the lower level of repurchases under our share repurchase program in the 2016 period. We repurchased $75.3 million of our common shares in the 2016 period, compared to $361.9 million in the 2015 period.

Our insurance and reinsurance operations provide liquidity in that premiums are received in advance, sometimes substantially in advance, of the time losses are paid. The period of time from the occurrence of a claim through the settlement of the liability may extend many years into the future. Sources of liquidity include cash flows from operations, financing arrangements or routine sales of investments.

As part of our investment strategy, we seek to establish a level of cash and highly liquid short-term and intermediate-term securities which, combined with expected cash flow, is believed by us to be adequate to meet our foreseeable payment obligations. However, due to the nature of our operations, cash flows are affected by claim payments that may comprise large payments on a limited number of claims and which can fluctuate from year to year. We believe that our liquid investments and cash flow will provide us with sufficient liquidity in order to meet our claim payment obligations. However, the timing and amounts of actual claim payments related to recorded Loss Reserves vary based on many factors, including large individual losses, changes in the legal environment, as well as general market conditions.

The ultimate amount of the claim payments could differ materially from our estimated amounts. Certain lines of business written by us, such as excess casualty, have loss experience characterized as low frequency and high severity. The foregoing may result in significant variability in loss payment patterns. The impact of this variability can be exacerbated by the fact that the timing of the receipt of reinsurance recoverables owed to us may be slower than anticipated by us. Therefore, the irregular timing of claim payments can create significant variations in cash flows from operations between periods and may require us to utilize other sources of liquidity to make these payments, which may include the sale of investments or utilization of existing or new credit facilities or capital market transactions. If the source of liquidity is the sale of investments, we may be forced to sell such investments at a loss, which may be material.

Our investments in certain securities, including certain fixed income and structured securities, investments in funds accounted for using the equity method, other alternative investments and investments in ventures such as Watford Re and others may be illiquid due to contractual provisions or investment market conditions. If we require significant amounts of cash on short notice in excess of anticipated cash requirements, then we may have difficulty selling these investments in a timely manner or may be forced to sell or terminate them at unfavorable values. Our unfunded investment commitments totaled approximately $1.35 billion at June 30, 2016 .

At June 30, 2016, our investable assets were $15.18 billion (excluding the $1.70 billion of investable assets related to the ‘other’ segment). The primary goals of our asset liability management process are to satisfy the insurance liabilities, manage the interest rate risk embedded in those insurance liabilities and maintain sufficient liquidity to cover fluctuations in projected liability cash flows, including debt service obligations. Generally, the expected principal and interest payments produced by our fixed income portfolio adequately fund the estimated runoff of our insurance reserves. Although this is not an exact cash flow match in each period, the substantial degree by which the fair value of the fixed income portfolio exceeds the expected present value of the net insurance liabilities, as well as the positive cash flow from newly sold policies and the large amount of high quality liquid bonds, provide assurance of our ability to fund the payment of claims and to service our outstanding debt without having to sell securities at distressed prices or access credit facilities.

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, could have a material adverse effect on financial markets and economic conditions in the U.S. and throughout the world. In turn, this could have a material adverse effect on our business, financial condition and results of operations and, in particular, this could have a material adverse effect on the

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value and liquidity of securities in our investment portfolio. Our investment portfolio as of June 30, 2016 included $238.5 million of securities issued and/or guaranteed by Eurozone governments at fair value, $2.70 billion of obligations of the U.S. government and government agencies at fair value and $1.90 billion of municipal bonds at fair value. Please refer to Item 1A “Risk Factors” of our 2015 Form 10-K for a discussion of other risks relating to our business and investment portfolio.

We expect that our liquidity needs, including our anticipated (re)insurance obligations and operating and capital expenditure needs, for the next twelve months, at a minimum, will be met by funds generated from underwriting activities and investment income, as well as by our balance of cash, short-term investments, proceeds on the sale or maturity of our investments, and our credit facilities.

We monitor our capital adequacy on a regular basis and will seek to adjust our capital base (up or down) according to the needs of our business. The future capital requirements of our business will depend on many factors, including our ability to write new business successfully and to establish premium rates and reserves at levels sufficient to cover losses. Our ability to underwrite is largely dependent upon the quality of our claims paying and financial strength ratings as evaluated by independent rating agencies. In particular, we require (1) sufficient capital to maintain our financial strength ratings, as issued by several ratings agencies, at a level considered necessary by management to enable our key operating subsidiaries to compete; (2) sufficient capital to enable our underwriting subsidiaries to meet the capital adequacy tests performed by statutory agencies in the U.S. and other key markets; and (3) our non-U.S. operating companies are required to post letters of credit and other forms of collateral that are necessary for them to operate as they are “non-admitted” under U.S. state insurance regulations.

In December 2013, Arch-U.S., a wholly-owned subsidiary of ACGL, completed a public offering of $500.0 million principal amount of 5.144% senior notes issued at par and due November 1, 2043 (“Arch-U.S. Senior Notes”), fully and unconditionally guaranteed by ACGL (the “Guarantee”). The Arch-U.S. Senior Notes and the Guarantee are unsecured and unsubordinated obligations of Arch-U.S. and ACGL, respectively, and rank equally and ratably with the other unsecured and unsubordinated indebtedness of Arch-U.S. and ACGL, respectively. A portion of the proceeds from the offering were used to fund the acquisition of the mortgage operations noted below. In addition, the proceeds are available for other corporate purposes.

Pursuant to our January 2014 acquisition of CMG Mortgage Insurance Company and its affiliated mortgage insurance companies (the “CMG Entities”), we are required to make contingent consideration payments based on the closing book value of the pre-closing portfolio of the CMG Entities as re-calculated over an earn-out period and payable at the third, fifth and sixth anniversaries after closing (subject to a one time extension period of one to three years at the sellers’

discretion). The maximum amount of contingent consideration payments is $136.9 million over the earn-out period (or 150% of the closing book value of the CMG Entities less amounts paid at closing). We currently expect that the maximum amount will be paid over the earn-out period and that the first payment, due in April 2017, will be approximately $70 million. To the extent that the adjusted book value of the CMG Entities drops below the cumulative amount paid by us, no additional payments would be due.

As part of our capital management program, we may seek to raise additional capital or may seek to return capital to our shareholders through share repurchases, cash dividends or other methods (or a combination of such methods). Any such determination will be at the discretion of our board of directors and will be dependent upon our profits, financial requirements and other factors, including legal restrictions, rating agency requirements and such other factors as our board of directors deems relevant.

The board of directors of ACGL has authorized the investment in ACGL’s common shares through a share repurchase program. Since the inception of the share repurchase program through June 30, 2016, ACGL has repurchased 125.2 million common shares for an aggregate purchase price of $3.68 billion. At June 30, 2016, approximately $446.5 million of share repurchases were available under the program. Repurchases under this authorization may be effected from time to time in open market or privately negotiated transactions through December 2016. 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. We will continue to monitor our share price and, depending upon results of

operations, market conditions and the development of the economy, as well as other factors, we will consider share repurchases on an opportunistic basis.

To the extent that our existing capital is insufficient to fund our future operating requirements or maintain such ratings, we may need to raise additional funds through financings or limit our growth. We can provide no assurance that, if needed, we would be able to obtain additional funds through financing on satisfactory terms or at all. Adverse developments in the financial markets, such as disruptions, uncertainty or volatility in the capital and credit markets, may result in realized and unrealized capital losses that could have a material adverse effect on our results of operations, financial position and our businesses, and may also limit our access to capital required to operate our business.

If we are not able to obtain adequate capital, our business, results of operations and financial condition could be adversely affected, which could include, among other things, the following possible outcomes: (1) potential downgrades in the financial strength ratings assigned by ratings agencies to our operating subsidiaries, which could place those operating subsidiaries at a competitive disadvantage compared to higher-rated competitors; (2) reductions in the

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amount of business that our operating subsidiaries are able to write in order to meet capital adequacy-based tests enforced by statutory agencies; and (3) any resultant ratings downgrades could, among other things, affect our ability to write business and increase the cost of bank credit and letters of credit. In addition, under certain of the reinsurance agreements assumed by our reinsurance operations, upon the occurrence of a ratings downgrade or other specified triggering event with respect to our reinsurance operations, such as a reduction in surplus by specified amounts during specified periods, our ceding company clients may be provided with certain rights, including, among other things, the right to terminate the subject reinsurance agreement and/or to require that our reinsurance operations post additional collateral.

In addition to common share capital, we depend on external sources of finance to support our underwriting activities, which can be in the form (or any combination) of debt securities, preference shares, common equity and bank credit facilities providing loans and/or letters of credit. As noted above, equity or debt financing, if available at all, may be on terms that are unfavorable to us. In the case of equity financings, dilution to our shareholders could result, and, in any case, such securities may have rights, preferences and privileges that are senior to those of our outstanding securities.

In June 2014, ACGL and its wholly-owned subsidiaries entered into a five-year agreement for a $300.0 million unsecured revolving loan and letter of credit facility and a $500.0 million secured letter of credit facility. Under the terms of the agreement, Arch Re U.S. and Arch Re Bermuda are limited to issuing an aggregate of $100.0 million of unsecured letters of credit as part of the unsecured revolving loan. At June 30, 2016, ACGL had $200.0 million and $325.4 million in remaining capacity under the unsecured revolving loan facility and the secured letter of credit facility, respectively. Refer to note 9, “Commitments and Contingencies—Letter of Credit and Revolving Credit Facilities,” of the notes accompanying our consolidated financial statements for a discussion of our available facilities, applicable covenants on such facilities and available capacity.

In March 2015, ACGL and Arch-U.S. filed a universal shelf registration statement with the SEC. This registration statement allows for the possible future offer and sale by us of various types of securities, including unsecured debt securities, preference shares, common shares, warrants, share purchase contracts and units and depositary shares. The shelf registration statement enables us to efficiently access the public debt and/or equity capital markets in order to meet our future capital needs. The shelf registration statement also allows selling shareholders to resell common shares that they own in one or more offerings from time to time. We will not receive any proceeds from any shares offered by the selling shareholders. This report is not an offer to sell or the solicitation of an offer to buy nor shall there be any sale of

these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

At June 30, 2016, total capital available to Arch of $7.60 billion consisted of $791.4 million of senior notes, representing 10.4% of the total, $100.0 million of revolving credit agreement borrowings due in June 2019, representing 1.3% of the total, $325.0 million of preferred shares, representing 4.3% of the total, and common shareholders’ equity of $6.38 billion, representing 84.0% of the total. At December 31, 2015, total capital available to Arch of $7.10 billion consisted of $791.3 million of senior notes, representing 11.2% of the total, $100.0 million of revolving credit agreement borrowings, representing 1.4% of the total, $325.0 million of preferred shares, representing 4.6% of the total, and common shareholders’ equity of $5.88 billion, representing 82.9% of the total.

Off-Balance Sheet Arrangements

Off-balance sheet arrangements are discussed in Management’s Discussion and Analysis of Financial Condition and Results of Operations contained in our 2015 Form 10-K.

Market Sensitive Instruments and Risk Management

In accordance with the SEC’s Financial Reporting Release No. 48, we performed a sensitivity analysis to determine the effects that market risk exposures could have on the future earnings, fair values or cash flows of our financial instruments as of June 30, 2016. Market risk represents the risk of changes in the fair value of a financial instrument and is comprised of several components, including liquidity, basis and price risks. We have not included Watford Re in the following analyses as we do not guarantee or provide credit support for Watford Re, and 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 reinsurance transactions.
An analysis of material changes in market risk exposures at June 30, 2016 that affect the quantitative and qualitative disclosures presented in our 2015 Form 10-K (see section captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations—Market Sensitive Instruments and Risk Management") were as follows:
Investment Market Risk
• Fixed Income Securities
We invest in interest rate sensitive securities, primarily debt securities. We consider the effect of interest rate movements on the fair value of our fixed maturities, fixed maturities pledged under securities lending agreements, short-term investments and certain of our other investments which invest in fixed income securities and the corresponding change in

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unrealized appreciation. As interest rates rise, the fair value of our interest rate sensitive securities falls, and the converse is also true. Based on historical observations, there is a low probability that all interest rate yield curves would shift in the same direction at the same time. Accordingly, the actual effect of interest rate movements may differ materially from the amounts set forth in the following tables.
The following table summarizes the effect that an immediate, parallel shift in the interest rate yield curve would have had on our fixed income securities:

(U.S. dollars in billions)	Interest Rate Shift in Basis Points				
	-100	-50	—	+50	+100
June 30, 2016					
Total fair value	$14.78	$14.51	$14.23	$13.95	$13.69
Change from base	3.86 %	2.01 %		(1.95)%	(3.80)%
Change in unrealized value	$0.55	$0.29		$(0.28)	$(0.54)
Dec. 31, 2015					
Total fair value	$14.04	$13.80	$13.57	$13.34	$13.12
Change from base	3.44 %	1.70 %		(1.69)%	(3.32)%
Change in unrealized value	$0.47	$0.23		$(0.23)	$(0.45)

In addition, we consider the effect of credit spread movements on the fair value of our fixed maturities, fixed maturities pledged under securities lending agreements, short-term investments and certain of our other investments and investment funds accounted for using the equity method which invest in fixed income securities and the corresponding change in unrealized appreciation. As credit spreads widen, the fair value of our fixed income securities falls, and the converse is also true.
The following table summarizes the effect that an immediate, parallel shift in credit spreads in a static interest rate environment would have had on our fixed income securities:

(U.S. dollars in billions)	Credit Spread Shift in Basis Points				
	-100	-50	—	+50	+100
June 30, 2016					
Total fair value	$14.65	$14.44	$14.23	$14.01	$13.80
Change from base	2.99 %	1.50 %		(1.50)%	(2.99)%
Change in unrealized value	$0.43	$0.21		$(0.21)	$(0.43)
Dec. 31, 2015					
Total fair value	$13.97	$13.77	$13.57	$13.37	$13.17
Change from base	2.97 %	1.48 %		(1.48)%	(2.97)%
Change in unrealized value	$0.40	$0.20		$(0.20)	$(0.40)

Another method that attempts to measure portfolio risk is Value-at-Risk (“VaR”). VaR attempts to take into account a broad cross-section of risks facing a portfolio by utilizing relevant securities volatility data skewed towards the most recent months and quarters. VaR measures the amount of a portfolio at risk for outcomes 1.65 standard deviations from the mean based on normal market conditions over a one year

time horizon and is expressed as a percentage of the portfolio’s initial value. In other words, 95% of the time, should the risks taken into account in the VaR model perform per their historical tendencies, the portfolio’s loss in any one year period is expected to be less than or equal to the calculated VaR, stated as a percentage of the measured portfolio’s initial value. As of June 30, 2016, our portfolio’s VaR was estimated to be 4.17%, or $456.2 million, compared to an estimated 3.01%, or $408.5 million, at December 31, 2015.
•Certain Other Investments and Equity Securities
Our investment portfolio includes certain other investments which do not invest in fixed income securities along with equity holdings. At June 30, 2016 and December 31, 2015, the fair value of such investments totaled $509.0 million and $630.0 million, respectively. These investments are exposed to price risk, which is the potential loss arising from

decreases in fair value. An immediate hypothetical 10% decline in the value of each position would reduce the fair value of such investments by approximately $50.9 million and $63.0 million at June 30, 2016 and December 31, 2015, respectively, and would have decreased book value per common share by approximately $0.42 and $0.51, respectively. An immediate hypothetical 10% increase in the value of each position would increase the fair value of such investments by approximately $50.9 million and $63.0 million at June 30, 2016 and December 31, 2015, respectively, and would have increased book value per common share by approximately $0.42 and $0.51, respectively.

Investment-Related Derivatives

At June 30, 2016, the notional value of all derivative instruments (excluding to-be-announced mortgage backed securities which are included in the fixed income securities analysis above and foreign currency forward contracts which are included in the foreign currency exchange risk analysis below) was $3.56 billion, compared to $2.81 billion at December 31, 2015. If the underlying exposure of each investment-related derivative held at June 30, 2016 depreciated by 100 basis points, it would have resulted in a reduction in net income of approximately $35.6 million, and a decrease in book value per common share of approximately $0.29 per share, compared to $28.1 million and $0.23 per share, respectively, on investment-related derivatives held at December 31, 2015. If the underlying exposure of each investment-related derivative held at June 30, 2016 appreciated by 100 basis points, it would have resulted in an increase in net income of approximately $35.6 million, and an increase in book value per common share of approximately $0.29 per share, compared to $28.1 million and $0.23 per share, respectively, on investment-related derivatives held at December 31, 2015. See note 8, “Derivative Instruments,” of the notes accompanying our consolidated financial statements for additional disclosures concerning derivatives.

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For further discussion on investment activity, please refer to "—Financial Condition, Liquidity and Capital Resources—Financial Condition—Investable Assets."

Foreign Currency Exchange Risk

Foreign currency rate risk is the potential change in value, income and cash flow arising from adverse changes in foreign currency exchange rates. Through our subsidiaries and branches located in various foreign countries, we conduct our insurance and reinsurance operations in a variety of local currencies other than the U.S. Dollar. We generally hold investments in foreign currencies which are intended to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities. We may also utilize foreign currency forward contracts and currency options as part of our investment strategy. See note 8, "Derivative Instruments," of the notes accompanying our consolidated financial statements for additional information.

The following table provides a summary of our net foreign currency exchange exposures, as well as foreign currency derivatives in place to manage these exposures:

(U.S. dollars in thousands, except per share data)	June 30, 2016	December 31, 2015
Net assets (liabilities), denominated in foreign currencies, excluding shareholders' equity and derivatives	$(39,404)	$(163,199)
Shareholders' equity denominated in foreign currencies (1)	311,963	328,133
Net foreign currency forward contracts outstanding (2)	178,323	(97,658)
Net exposures denominated in foreign currencies	$450,882	$67,276
Pre-tax impact of a hypothetical 10% appreciation of the U.S. Dollar against foreign currencies:		
Shareholders' equity	$(45,088)	$(6,728)
Book value per common share	$(0.37)	$(0.05)
Pre-tax impact of a hypothetical 10% decline of the U.S. Dollar against foreign currencies:		
Shareholders' equity	$45,088	$6,728
Book value per common share	$0.37	$0.05

(1) Represents capital contributions held in the foreign currencies of our operating units.
(2) Represents the net notional value of outstanding foreign currency forward contracts.

Although the Company generally attempts to match the currency of its projected liabilities with investments in the same currencies, from time to time the Company may elect to over or underweight one or more currencies, which could increase the Company's exposure to foreign currency fluctuations and increase the volatility of the Company's shareholders' equity. Historical observations indicate a low probability that all foreign currency exchange rates would shift against the U.S. Dollar in the same direction and at the same time and, accordingly, the actual effect of foreign currency rate movements may differ materially from the amounts set forth above. For further discussion on foreign exchange activity, please refer to "—Results of Operations."

Other Financial Information

The consolidated financial statements as of June 30, 2016 and for the three month and six month periods ended June 30, 2016 and 2015 have been reviewed by PricewaterhouseCoopers LLP, the registrant's independent public accountants, whose report is included as an exhibit to this filing. The report of PricewaterhouseCoopers LLP states that they did not audit and they do not express an opinion on that unaudited financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied. PricewaterhouseCoopers LLP is not subject to the liability provisions of Section 11 of the Securities Act of 1933 for their report on the unaudited financial information because that report is not a "report" or a "part" of the registration statement prepared or certified by PricewaterhouseCoopers LLP within the meaning of Sections 7 and 11 of the Securities Act of 1933.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Reference is made to the information appearing above under the subheading “Market Sensitive Instruments and Risk Management” under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” which information is hereby incorporated by reference.

ITEM 4. CONTROLS AND PROCEDURES

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Evaluation of Disclosure Controls and Procedures

In connection with the filing of this Form 10-Q, our management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of disclosure controls and procedures pursuant to applicable Exchange Act Rules as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective as of the end of and during the period covered by this report with respect to information being recorded, processed, summarized and reported within time periods specified in the SEC’s rules and forms and with respect to timely communication to them and other members of management responsible for preparing periodic reports of all material information required to be disclosed in this report as it relates to ACGL and its consolidated subsidiaries.

We continue to enhance our operating procedures and internal controls to effectively support our business and our regulatory and reporting requirements. Our management does not expect that our disclosure controls or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. As a result of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons or by collusion of two or more people. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. As a result of the inherent limitations in a cost-effective control system, misstatement due to error or fraud may occur and not be detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the disclosure controls and procedures are met.

Changes in Internal Controls Over Financial Reporting

There have been no changes in internal control over financial reporting that occurred during the fiscal quarter ended June 30, 2016 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We, in common with the insurance industry in general, are subject to litigation and arbitration in the normal course of our business. As of June 30, 2016, we were not a party to any litigation or arbitration which is expected by management to have a material adverse effect on our results of operations and financial condition and liquidity.

ITEM 1A. RISK FACTORS

Our business is subject to a number of risks, including those identified in Item 1A. of Part I of our 2015 Form 10-K, that could have a material adverse effect on our business, results of operations, financial condition and/or liquidity and that could cause our operating results to vary significantly from period to period. The risks described in our 2015 Form 10-K are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also could have a material adverse effect on our business, results of operations, financial condition and/or liquidity.

Recent developments relating to the United Kingdom's referendum vote in favor of leaving the European Union could adversely affect us.

On June 23, 2016, a referendum was held in the U.K. in which it was decided that the U.K. would leave the EU ("Brexit"). As a result of this vote, negotiations are expected to commence to determine the terms of the U.K.'s withdrawal from the EU, including the terms of trade between the U.K. and the EU. The effects of Brexit have been, and are expected to continue to be, far reaching. The perceptions as to the impact of Brexit may adversely affect business activity and economic conditions in Europe and globally and could continue to contribute to instability in global financial and foreign exchange markets. Brexit could also have the effect of disrupting the free movement of goods, services and people between the U.K. and the EU. The full effects of Brexit are uncertain and will depend on any agreements the U.K. may make to retain access to EU markets. Lastly, as a result of the Brexit, other European countries may seek to conduct referenda with respect to their continuing membership with the EU. Given these possibilities and others we may not anticipate, as well as the lack of comparable precedent, the full extent to which our business, results of operations and financial condition could be adversely affected by Brexit is uncertain.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

The following table summarizes our purchases of our common shares for the 2016 second quarter:

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan or Programs (2)
4/1/2016 - 4/30/2016	1,772	$ 71.36	—	$ 446,501
5/1/2016 - 5/31/2016	123,559	71.34	—	$ 446,501
6/1/2016 - 6/30/2016	7,045	70.97	—	$ 446,501
Total	132,376	$ 71.32	—	$ 446,501

(1) Includes repurchases by ACGL of shares, from time to time, from employees in order to facilitate the payment of withholding taxes on restricted shares granted and the exercise of stock appreciation rights. We purchased these

shares at their fair value, as determined by reference to the closing price of our common shares on the day the restricted shares vested or the stock appreciation rights were exercised.

(2) Remaining amount available at June 30, 2016 under ACGL's share repurchase authorization, under which repurchases may be effected from time to time in open market or privately negotiated transactions through December 31, 2016.

ITEM 5. OTHER INFORMATION

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In accordance with Section 10a(i)(2) of the Securities Exchange Act of 1934, as amended, we are responsible for disclosing non-audit services to be provided by our independent auditor, PricewaterhouseCoopers LLP, which are approved by the Audit Committee of our board of directors. During the 2016 second quarter, the Audit Committee approved engagements of PricewaterhouseCoopers LLP for permitted non-audit services, which consisted of tax consulting services, tax compliance services and other accounting consulting services.

Disclosure of Certain Activities Under Section 13(r) of the Securities Exchange Act of 1934

Section 13(r) of the Securities Exchange Act of 1934, as amended, requires an issuer to disclose in its annual or quarterly reports whether it or an affiliate knowingly engaged in certain activities described in that section, including certain activities related to Iran during the period covered by the report.

Effective January 16, 2016, the Office of Foreign Assets Control of the U.S. Department of the Treasury adopted General License H which authorizes non-U.S. entities that are owned or controlled by a U.S. person to engage in certain activities with Iran so long as they comply with certain specific requirements set forth therein.

Certain of our non-U.S. subsidiaries provide global marine policies that provide coverage for vessels navigating into and out of ports worldwide. In light of European Union and U.S. modifications to Iran sanctions this year, including the issuance of General License H, and consistent with General License H, we have been notified that certain of our policyholders have begun to, or will begin to, ship cargo to and from Iran, and that such cargo may include transporting crude oil from Iran to another country. Since these policies insure multiple voyages and fleets containing multiple ships, we are unable to attribute gross revenues and net profits from such marine policies to these activities involving Iran. We intend for our non-U.S. subsidiaries to continue to provide such coverage to the extent permitted by applicable law.

ITEM 6. EXHIBITS

Exhibit No.	Description
3	Bye-Laws of Arch Capital Group Ltd., a Bermuda company
10.1	Restricted Share Agreement with Arch Capital Group Ltd. substantially in the form signed by the Non-Employee Directors of Arch Capital Group Ltd. for May 6, 2016 grants
10.2	Restricted Share Agreement with Arch Capital Group Ltd. substantially in the form signed by each of Constantine Iordanou, Mark D. Lyons, Marc Grandisson, W. Preston Hutchings, David McElroy and Louis T. Petrillo for May 13, 2016 grants
10.3	Non-Qualified Stock Option Agreement with Constantine Iordanou, Mark D. Lyons, Marc Grandisson, W. Preston Hutchings, David McElroy and Louis T. Petrillo for May 13, 2016 grants
10.4	Restricted Share Unit Agreement, dated as of May 13, 2016, between Arch Capital Group Ltd. and David McElroy
10.5	Share Appreciation Right Agreement, dated February 27, 2015, between Arch Capital Group Ltd. and Constantine Iordanou
10.6	Non-Qualified Stock Option Agreement, dated February 26, 2016, between Arch Capital Group Ltd. and Constantine Iordanou
10.7	Third Amended and Restated Arch Capital Group Ltd. Incentive Compensation Plan
15	Accountants’ Awareness Letter (regarding unaudited interim financial information)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	The following financial information from Arch Capital Group Ltd.’s Quarterly Report for the quarter

ended June 30, 2016 formatted in XBRL: (i) Consolidated Balance Sheets at June 30, 2016 and December 31, 2015; (ii) Consolidated Statements of Income for the three and six month periods ended June 30, 2016 and 2015; (iii) Consolidated Statements of Comprehensive Income for the three and six month periods ended June 30, 2016 and 2015; (iv) Consolidated Statements of Changes in Shareholders' Equity for the six month periods ended June 30, 2016 and 2015; (v) Consolidated Statements of Cash Flows for the six month periods ended June 30, 2016 and 2015; and (vi) Notes to Consolidated Financial Statements.

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SIGNATURES

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

	ARCH CAPITAL GROUP LTD. (REGISTRANT)
	/s/ Constantine Iordanou
Date: August 5, 2016	Constantine Iordanou
	Chief Executive Officer (Principal Executive Officer) and Chairman of the Board of Directors
	/s/ Mark D. Lyons
Date: August 5, 2016	Mark D. Lyons
	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)

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