



Waterloo House, Ground Floor
100 Pitts Bay Road
Pembroke HM 08 Bermuda

441-278-9250
441-278-9255 fax

Contact:
Mark D. Lyons
*Executive Vice President and Chief
Financial Officer*

Financial Supplement

Financial Information as of December 31, 2016

The following financial supplement is provided to assist in your understanding of Arch Capital Group Ltd.

This report is for informational purposes only. It should be read in conjunction with documents filed by Arch Capital Group Ltd. with the U.S. Securities and Exchange Commission, including the most recent Annual Report on Form 10-K and the Quarterly Reports on Form 10-Q. Please refer to the Company's website at www.archcapgroup.com for further information describing Arch Capital Group Ltd.

Arch Capital Group Ltd. and Subsidiaries
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Arch Capital Group Ltd. and Subsidiaries Basis of Presentation

Basis of Presentation

All financial information contained herein is unaudited, however, certain information relating to the consolidated balance sheet at December 31, 2015 is derived from or agrees to audited financial information. Unless otherwise noted, all data is in thousands, except for share and per share amounts and ratio information.

On December 31, 2016, the Company completed the acquisition of United Guaranty Corporation (“UGC”) pursuant to the Stock Purchase Agreement with American International Group, Inc. (“AIG”) entered into on August 15, 2016. As such, the Company’s balance sheet reflects the acquisition of UGC while its 2016 income statement does not include UGC other than the impact of capital raising activity and transaction costs. For a complete description of the UGC acquisition, please refer to the Company’s Form 8-K filed on August 15, 2016 and other documents on file with the SEC.

In March 2014, the Company invested \$100.0 million to acquire 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”). In accordance with GAAP, Watford is considered a variable interest entity and the Company concluded that it is the primary beneficiary of Watford Re. **As such, 100% of the results of Watford Re are included in the Company’s consolidated financial statements.** The portion of Watford Re’s earnings owned by third parties is recorded in the consolidated statements of income as ‘amounts attributable to noncontrolling interests.’ In addition, the Company reflects Watford Re’s redeemable preference shares in the mezzanine section of the Company’s consolidated balance sheets as ‘redeemable noncontrolling interests’ because they have redemption features that are not solely within the control of Watford Re.

Cautionary Note Regarding Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 provides a “safe harbor” for forward-looking statements. This release or any other written or oral statements made by or on behalf of Arch Capital Group Ltd. and its subsidiaries may include forward-looking statements, which reflect the Company’s 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 can generally be identified by the use of forward-looking terminology such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe” or “continue” or their negative or variations or similar terminology. Forward-looking statements involve the Company’s current assessment of risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. A non-exclusive list of the important factors that could cause actual results to differ materially from those in such forward-looking statements includes the following: adverse general economic and market conditions; increased competition; pricing and policy term trends; fluctuations in the actions of rating agencies and the Company’s ability to maintain and improve the Company’s ratings; investment performance; the loss of key personnel; the adequacy of the Company’s loss reserves, severity and/or frequency of losses, greater than expected loss ratios and adverse development on claim and/or claim expense liabilities; greater frequency or severity of unpredictable natural and man-made catastrophic events; the impact of acts of terrorism and acts of war; changes in regulations and/or tax laws in the United States or elsewhere; the Company’s ability to successfully integrate, establish and maintain operating procedures as well as integrate the businesses we have acquired or may acquire into the existing operations; changes in accounting principles or policies; material differences between actual and expected assessments for guaranty funds and mandatory pooling arrangements; availability and cost to the Company of reinsurance to manage gross and net exposures; the failure of others to meet their obligations to the Company; and other factors identified in the Company’s filings with the U.S. Securities and Exchange Commission.

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. All subsequent written and oral forward-looking statements attributable to the Company or persons acting on the Company’s behalf are expressly qualified in their entirety by these cautionary statements. The Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Arch Capital Group Ltd. and Subsidiaries
Financial Highlights

The following table presents financial highlights (1):

(U.S. Dollars in thousands, except share data)

	Three Months Ended			Year Ended		
	December 31,			December 31,		
	2016	2015	Change	2016	2015	Change
Underwriting results:						
Gross premiums written	\$ 1,121,338	\$ 1,031,341	8.7 %	\$ 5,019,363	\$ 4,656,723	7.8 %
Net premiums written	764,925	738,798	3.5 %	3,517,603	3,351,572	5.0 %
Net premiums earned	847,405	824,283	2.8 %	3,416,852	3,336,053	2.4 %
Underwriting income (2)	112,512	116,700	(3.6)%	459,272	433,216	6.0 %
Loss ratio	55.4 %	51.2 %	4.2	54.6%	53.2%	1.4
Acquisition expense ratio	15.8 %	16.7 %	(0.9)	16.1%	17.0%	(0.9)
Other operating expense ratio	17.6 %	18.9 %	(1.3)	17.5%	17.8%	(0.3)
Combined ratio	88.8 %	86.8 %	2.0	88.2%	88.0%	0.2
Net investment income	\$ 70,105	\$ 66,970	4.7 %	\$ 277,193	\$ 271,680	2.0 %
<i>Per diluted share</i>	\$ 0.56	\$ 0.53	5.7 %	\$ 2.22	\$ 2.16	2.8 %
Net income available to Arch common shareholders	\$ 62,396	\$ 53,094	17.5 %	\$ 664,668	\$ 515,800	28.9 %
<i>Per diluted share</i>	\$ 0.50	\$ 0.42	19.0 %	\$ 5.33	\$ 4.09	30.3 %
After-tax operating income available to Arch common shareholders (2)	\$ 141,528	\$ 143,599	(1.4)%	\$ 577,444	\$ 565,199	2.2 %
<i>Per diluted share</i>	\$ 1.13	\$ 1.15	(1.7)%	\$ 4.63	\$ 4.48	3.3 %
Comprehensive income (loss) available to Arch	\$ (160,280)	\$ 32,268	(596.7)%	\$ 594,699	\$ 392,379	51.6 %
Cash flow from operations	\$ 278,827	\$ 98,521	183.0 %	\$ 1,109,913	\$ 705,128	57.4 %
Diluted weighted average common shares and common share equivalents outstanding	125,427,259	125,311,942	0.1 %	124,717,493	126,038,743	(1.0)%
Financial measures:						
Change in book value per share during period	3.5 %	0.6 %	2.9	15.8%	5.2%	10.6
Annualized return on average common equity	3.9 %	3.6 %	0.3	10.9%	8.9%	2.0
Annualized operating return on average common equity (2)	8.7 %	9.9 %	(1.2)	9.4%	9.7%	(0.3)
Total return on investments (3)						
Including effects of foreign exchange	(1.89)%	(0.33)%	-156 bps	2.07%	0.41%	166 bps
Excluding effects of foreign exchange	(1.66)%	(0.10)%	-156 bps	2.35%	1.62%	73 bps

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) See 'Comments on Regulation G' for a further discussion of consolidated underwriting income, after-tax operating income or loss available to Arch common shareholders and annualized operating return on average common equity.
- (3) Total return on investments includes net investment income, equity in net income (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 the Company's investment portfolio. Total return is calculated on a pre-tax basis and before investment expenses.

Arch Capital Group Ltd. and Subsidiaries
Consolidated Statements of Income

(U.S. Dollars in thousands, except share data)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Revenues							
Net premiums written	\$ 872,315	\$ 1,014,278	\$ 1,023,563	\$ 1,121,235	\$ 834,984	\$ 4,031,391	\$ 3,817,531
Change in unearned premiums	96,540	(55,875)	(17,578)	(169,656)	108,536	(146,569)	(83,626)
Net premiums earned	968,855	958,403	1,005,985	951,579	943,520	3,884,822	3,733,905
Net investment income	91,051	93,618	88,338	93,735	95,900	366,742	348,090
Net realized gains (losses)	(93,061)	125,105	68,218	37,324	(143,767)	137,586	(185,842)
Net impairment losses recognized in earnings	(13,593)	(3,867)	(5,343)	(7,639)	(7,336)	(30,442)	(20,116)
Other underwriting income	18,922	7,980	25,224	5,047	8,621	57,173	35,497
Equity in net income (loss) of investment funds accounted for using the equity method	16,421	16,662	8,737	6,655	5,517	48,475	25,455
Other income (loss)	(368)	(400)	(7)	(25)	(451)	(800)	(399)
Total revenues	988,227	1,197,501	1,191,152	1,086,676	902,004	4,463,556	3,936,590
Expenses							
Losses and loss adjustment expenses	(553,875)	(524,183)	(584,592)	(522,949)	(506,020)	(2,185,599)	(2,050,903)
Acquisition expenses	(168,426)	(163,861)	(175,281)	(170,465)	(171,409)	(678,033)	(681,476)
Other operating expenses	(165,609)	(155,557)	(159,590)	(152,269)	(161,569)	(633,025)	(607,516)
Corporate expenses	(36,678)	(18,485)	(17,200)	(9,383)	(12,243)	(81,746)	(49,745)
Interest expense	(18,539)	(15,943)	(15,663)	(16,107)	(15,827)	(66,252)	(45,874)
Net foreign exchange gains (losses)	38,176	(2,621)	24,662	(23,566)	4,520	36,651	66,118
Total expenses	(904,951)	(880,650)	(927,664)	(894,739)	(862,548)	(3,608,004)	(3,369,396)
Income before income taxes	83,276	316,851	263,488	191,937	39,456	855,552	567,194
Income tax (expense) benefit	12,298	(13,231)	(14,131)	(16,310)	(11,450)	(31,374)	(40,612)
Net income	95,574	303,620	249,357	175,627	28,006	824,178	526,582
Amounts attributable to noncontrolling interests	(21,561)	(50,748)	(38,302)	(20,829)	30,573	(131,440)	11,156
Net income attributable to Arch	74,013	252,872	211,055	154,798	58,579	692,738	537,738
Preferred dividends	(11,617)	(5,484)	(5,485)	(5,484)	(5,485)	(28,070)	(21,938)
Net income available to Arch common shareholders	\$ 62,396	\$ 247,388	\$ 205,570	\$ 149,314	\$ 53,094	\$ 664,668	\$ 515,800
Comprehensive income (loss) available to Arch	\$ (160,280)	\$ 208,790	\$ 273,260	\$ 272,929	\$ 32,268	\$ 594,699	\$ 392,379
Net income per common share and common share equivalent							
Basic	\$ 0.51	\$ 2.05	\$ 1.70	\$ 1.24	\$ 0.44	\$ 5.50	\$ 4.24
Diluted	\$ 0.50	\$ 1.98	\$ 1.65	\$ 1.20	\$ 0.42	\$ 5.33	\$ 4.09
Weighted average common shares and common share equivalents outstanding							
Basic	121,196,248	120,938,916	120,599,060	120,428,179	120,700,524	120,792,114	121,786,127
Diluted	125,427,259	124,931,653	124,365,596	124,496,496	125,311,942	124,717,493	126,038,743

Arch Capital Group Ltd. and Subsidiaries
Consolidated Balance Sheets

(U.S. Dollars in thousands, except share data)

	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015
Assets					
Investments:					
Fixed maturities available for sale, at fair value	\$ 13,426,577	\$ 11,026,929	\$ 11,050,464	\$ 10,645,257	\$ 10,459,353
Short-term investments available for sale, at fair value	612,005	1,184,408	853,531	623,844	587,904
Collateral received under securities lending, at fair value	762,565	466,055	338,326	594,929	389,336
Equity securities available for sale, at fair value	518,041	521,587	490,815	506,915	618,405
Other investments available for sale, at fair value	167,970	168,243	182,957	195,079	300,476
Investments accounted for using the fair value option	3,421,220	3,389,573	3,066,029	3,139,332	2,894,494
Investments accounted for using the equity method	811,273	797,542	685,766	628,832	592,973
Total investments	19,719,651	17,554,337	16,667,888	16,334,188	15,842,941
Cash	842,942	578,816	516,591	557,961	553,326
Accrued investment income	124,483	81,907	85,317	81,628	87,206
Securities pledged under securities lending, at fair value	744,980	453,757	330,773	580,766	384,081
Premiums receivable	1,072,435	1,182,708	1,260,607	1,209,548	983,443
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses	2,114,138	2,076,248	2,034,970	1,962,863	1,867,373
Contractholder receivables	1,717,436	1,649,441	1,600,426	1,529,105	1,486,296
Ceded unearned premiums	859,567	541,238	540,954	500,412	427,609
Deferred acquisition costs	447,560	418,818	412,258	413,640	382,829
Receivable for securities sold	58,284	285,112	142,315	329,262	45,505
Goodwill and intangible assets	781,553	90,941	88,327	92,670	97,531
Other assets	889,080	691,569	693,152	910,987	980,791
Total assets	\$ 29,372,109	\$ 25,604,892	\$ 24,373,578	\$ 24,503,030	\$ 23,138,931
Liabilities					
Reserve for losses and loss adjustment expenses	\$ 10,200,960	\$ 9,610,189	\$ 9,471,647	\$ 9,378,987	\$ 9,125,250
Unearned premiums	3,406,870	2,671,121	2,618,359	2,579,148	2,333,932
Reinsurance balances payable	300,407	271,688	295,987	276,426	224,120
Contractholder payables	1,717,436	1,649,441	1,600,426	1,529,105	1,486,296
Collateral held for insured obligations	301,406	277,463	261,228	249,440	248,982
Deposit accounting liabilities	22,150	22,281	22,325	266,140	260,364
Senior notes	1,732,258	791,437	791,392	791,349	791,306
Revolving credit agreement borrowings	756,650	398,100	397,830	457,431	530,434
Securities lending payable	762,554	466,047	338,318	594,922	393,844
Payable for securities purchased	76,183	474,041	382,834	494,813	64,996
Other liabilities	784,110	618,834	533,694	549,832	568,852
Total liabilities	20,060,984	17,250,642	16,714,040	17,167,593	16,028,376
Redeemable noncontrolling interests	205,553	205,459	205,366	205,274	205,182
Shareholders' equity					
Non-cumulative preferred shares	772,555	775,000	325,000	325,000	325,000
Convertible non-voting common equivalent preferred shares	1,101,304	—	—	—	—
Common shares	582	582	581	579	577
Additional paid-in capital	531,687	516,204	517,942	485,943	467,339
Retained earnings	7,996,701	7,934,304	7,686,916	7,481,346	7,332,032
Accumulated other comprehensive income (loss), net of deferred income tax	(114,541)	119,752	163,834	101,629	(16,502)
Common shares held in treasury, at cost	(2,034,570)	(2,031,859)	(2,028,690)	(2,019,249)	(1,941,904)
Total shareholders' equity available to Arch	8,253,718	7,313,983	6,665,583	6,375,248	6,166,542
Non-redeemable noncontrolling interests	851,854	834,808	788,589	754,915	738,831
Total shareholders' equity	9,105,572	8,148,791	7,454,172	7,130,163	6,905,373
Total liabilities, noncontrolling interests and shareholders' equity	\$ 29,372,109	\$ 25,604,892	\$ 24,373,578	\$ 24,503,030	\$ 23,138,931
Common shares and common share equivalents outstanding, net of treasury shares (1)	135,550,337	122,675,197	122,572,260	122,093,596	122,627,783
Book value per share (2)	\$ 55.19	\$ 53.30	\$ 51.73	\$ 49.55	\$ 47.64

(1) Includes the effect of the convertible non-voting common equivalent preferred shares issued as part of the UGC acquisition.

(2) Excludes the effects of stock options and restricted stock units outstanding.

Arch Capital Group Ltd. and Subsidiaries
Consolidated Statements of Changes in Shareholders' Equity

(U.S. Dollars in thousands)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Non-Cumulative Preferred Shares							
Balance at beginning of period	\$ 775,000	\$ 325,000	\$ 325,000	\$ 325,000	\$ 325,000	\$ 325,000	\$ 325,000
Series E preferred shares issued	—	450,000	—	—	—	450,000	—
Series C preferred shares repurchased	(2,445)	—	—	—	—	(2,445)	—
Balance at end of period	<u>\$ 772,555</u>	<u>\$ 775,000</u>	<u>\$ 325,000</u>	<u>\$ 325,000</u>	<u>\$ 325,000</u>	<u>\$ 772,555</u>	<u>\$ 325,000</u>
Convertible Non-Voting Common Equivalent Preferred Shares							
Balance at beginning of period	—	—	—	—	—	—	—
Series D preferred shares issued	1,101,304	—	—	—	—	1,101,304	—
Balance at end of period	<u>1,101,304</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>1,101,304</u>	<u>—</u>
Common Shares							
Balance at beginning of period	582	581	579	577	576	577	572
Common shares issued, net	—	1	2	2	1	5	5
Balance at end of period	<u>582</u>	<u>582</u>	<u>581</u>	<u>579</u>	<u>577</u>	<u>582</u>	<u>577</u>
Additional Paid-in Capital							
Balance at beginning of period	516,204	517,942	485,943	467,339	450,948	467,339	383,073
Issue costs on Series E preferred shares	—	(15,101)	—	—	—	(15,101)	—
All other	15,483	13,363	31,999	18,604	16,391	79,449	84,266
Balance at end of period	<u>531,687</u>	<u>516,204</u>	<u>517,942</u>	<u>485,943</u>	<u>467,339</u>	<u>531,687</u>	<u>467,339</u>
Retained Earnings							
Balance at beginning of period (1)	7,934,304	7,686,916	7,481,346	7,332,032	7,278,938	7,332,032	6,816,232
Net income	95,574	303,620	249,357	175,627	28,006	824,178	526,582
Amounts attributable to noncontrolling interests	(21,561)	(50,748)	(38,302)	(20,829)	30,573	(131,440)	11,156
Preferred share dividends	(11,617)	(5,484)	(5,485)	(5,484)	(5,485)	(28,070)	(21,938)
Balance at end of period	<u>7,996,701</u>	<u>7,934,304</u>	<u>7,686,916</u>	<u>7,481,346</u>	<u>7,332,032</u>	<u>7,996,701</u>	<u>7,332,032</u>
Accumulated Other Comprehensive Income (Loss)							
Balance at beginning of period	119,752	163,834	101,629	(16,502)	9,809	(16,502)	128,856
Change in unrealized appreciation (decline) in value of available-for-sale investments, net of deferred income tax	(219,989)	(38,711)	80,314	100,660	(15,629)	(77,726)	(111,513)
Change in foreign currency translation adjustments	(14,304)	(5,371)	(18,109)	17,471	(10,682)	(20,313)	(33,845)
Balance at end of period	<u>(114,541)</u>	<u>119,752</u>	<u>163,834</u>	<u>101,629</u>	<u>(16,502)</u>	<u>(114,541)</u>	<u>(16,502)</u>
Common Shares Held in Treasury, at Cost							
Balance at beginning of period	(2,031,859)	(2,028,690)	(2,019,249)	(1,941,904)	(1,940,795)	(1,941,904)	(1,562,019)
Shares repurchased for treasury	(2,711)	(3,169)	(9,441)	(77,345)	(1,109)	(92,666)	(379,885)
Balance at end of period	<u>(2,034,570)</u>	<u>(2,031,859)</u>	<u>(2,028,690)</u>	<u>(2,019,249)</u>	<u>(1,941,904)</u>	<u>(2,034,570)</u>	<u>(1,941,904)</u>
Total Shareholders' Equity Available to Arch	8,253,718	7,313,983	6,665,583	6,375,248	6,166,542	8,253,718	6,166,542
Non-redeemable noncontrolling interests	851,854	834,808	788,589	754,915	738,831	851,854	738,831
Total shareholders' equity	<u>\$ 9,105,572</u>	<u>\$ 8,148,791</u>	<u>\$ 7,454,172</u>	<u>\$ 7,130,163</u>	<u>\$ 6,905,373</u>	<u>\$ 9,105,572</u>	<u>\$ 6,905,373</u>

(1) Balance at beginning of period for the December 31, 2015 columns reflect a \$38.3 million cumulative effect of an accounting change recorded in the 2016 fourth quarter as of January 1, 2014.

Arch Capital Group Ltd. and Subsidiaries
Consolidated Statements of Cash Flows

(U.S. Dollars in thousands)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Operating Activities							
Net income	\$ 95,574	\$ 303,620	\$ 249,357	\$ 175,627	\$ 28,006	\$ 824,178	\$ 526,582
Adjustments to reconcile net income to net cash provided by operating activities:							
Net realized (gains) losses	83,605	(135,775)	(83,303)	(43,034)	127,981	(178,507)	149,961
Net impairment losses included in earnings	13,593	3,867	5,343	7,639	7,336	30,442	20,116
Equity in net income or loss of investment funds accounted for using the equity method and other income or loss	(2,513)	(3,004)	7,918	3,243	(126)	5,644	3,857
Share-based compensation	10,270	10,542	21,504	14,265	9,521	56,581	56,096
Changes in:							
Reserve for losses and loss adjustment expenses, net of unpaid losses and LAE recoverable	94,967	91,078	74,944	111,255	42,081	372,244	181,658
Unearned premiums, net of ceded unearned premiums	(96,540)	55,875	17,578	169,656	(108,536)	146,569	83,626
Premiums receivable	127,296	79,905	(61,466)	(217,348)	81,958	(71,613)	(26,783)
Deferred acquisition costs	2,309	(7,456)	(3,400)	(30,050)	12,714	(38,597)	(29,008)
Reinsurance balances payable	(17,656)	(24,514)	21,783	51,929	(10,127)	31,542	(5,885)
Other liabilities	82,473	83,282	23,617	32,697	38,585	222,069	45,223
Other items, net	(33,873)	38,495	(55,194)	46,664	(39,066)	(3,908)	(7,537)
Net cash provided by operating activities	<u>359,505</u>	<u>495,915</u>	<u>218,681</u>	<u>322,543</u>	<u>190,327</u>	<u>1,396,644</u>	<u>997,906</u>
Investing Activities							
Purchases of fixed maturity investments	(7,692,255)	(10,298,824)	(9,408,194)	(8,133,537)	(7,069,769)	(35,532,810)	(29,451,873)
Purchases of equity securities	(287,935)	(165,089)	(84,415)	(128,263)	(29,887)	(665,702)	(515,413)
Purchases of other investments	(380,632)	(358,161)	(345,415)	(305,198)	(429,275)	(1,389,406)	(1,749,525)
Proceeds from sales of fixed maturity investments	7,828,042	9,753,375	9,151,013	7,827,536	6,682,493	34,559,966	28,094,047
Proceeds from sales of equity securities	286,824	127,285	121,607	216,012	55,003	751,728	564,011
Proceeds from sales, redemptions and maturities of other investments	269,998	242,795	425,410	211,125	392,515	1,149,328	1,250,883
Proceeds from redemptions and maturities of fixed maturities	214,184	169,843	207,086	163,894	118,132	755,007	748,529
Net settlements of derivative instruments	(40,464)	(21,778)	24,083	21,091	(86,170)	(17,068)	(5,056)
Proceeds from investment in joint venture	—	—	—	—	—	—	40,000
Net (purchases) sales of short-term investments	480,752	(299,702)	(238,866)	(65,594)	(12,646)	(123,410)	169,095
Change in cash collateral related to securities lending	(127,313)	(9,220)	24,403	(43,118)	(35,347)	(155,248)	(6,662)
Acquisitions, net of cash	(1,971,809)	(19,451)	(1,460)	—	—	(1,992,720)	818
Purchases of fixed assets	(3,738)	(3,281)	(4,332)	(3,952)	(4,835)	(15,303)	(15,736)
Change in other assets	(42,089)	(17,232)	6,679	6,737	6,661	(45,905)	(36,993)
Net cash provided by (used for) investing activities	<u>(1,466,435)</u>	<u>(899,440)</u>	<u>(122,401)</u>	<u>(233,267)</u>	<u>(413,125)</u>	<u>(2,721,543)</u>	<u>(913,875)</u>
Financing Activities							
Proceeds from issuance of preferred shares, net	—	434,899	—	—	—	434,899	—
Purchases of common shares under share repurchase program	—	—	—	(75,256)	—	(75,256)	(365,383)
Proceeds from common shares issued, net	1,367	(2,298)	(1,689)	202	4,164	(2,418)	4,861
Proceeds from borrowings	1,340,741	—	46,000	—	192,285	1,386,741	431,362
Repayments of borrowings	(40,000)	—	(105,000)	(74,171)	—	(219,171)	—
Change in cash collateral related to securities lending	127,313	9,220	(24,403)	43,118	35,347	155,248	6,662
Dividends paid to redeemable noncontrolling interests	(4,498)	(4,497)	(4,497)	(4,497)	(4,497)	(17,989)	(18,307)
Other	(31,428)	35,336	(31,338)	29,115	(92,376)	1,685	(41,913)
Preferred dividends paid	(11,617)	(5,484)	(5,485)	(5,484)	(5,485)	(28,070)	(21,938)
Net cash provided by (used for) financing activities	<u>1,381,878</u>	<u>467,176</u>	<u>(126,412)</u>	<u>(86,973)</u>	<u>129,438</u>	<u>1,635,669</u>	<u>(4,656)</u>
Effects of exchange rate changes on foreign currency cash	(10,822)	(1,426)	(11,238)	2,332	(3,093)	(21,154)	(11,751)
Increase (decrease) in cash	264,126	62,225	(41,370)	4,635	(96,453)	289,616	67,624
Cash beginning of period	578,816	516,591	557,961	553,326	649,779	553,326	485,702
Cash end of period	<u>\$ 842,942</u>	<u>\$ 578,816</u>	<u>\$ 516,591</u>	<u>\$ 557,961</u>	<u>\$ 553,326</u>	<u>\$ 842,942</u>	<u>\$ 553,326</u>
Income taxes paid, net	\$ 9,879	\$ 14,123	\$ 24,115	\$ 2,504	\$ 4,813	\$ 50,621	\$ 40,273
Interest paid	\$ 28,054	\$ 3,710	\$ 27,711	\$ 3,813	\$ 27,533	\$ 63,288	\$ 52,728
Non-cash consideration paid in convertible non-voting common equivalent preferred shares	\$ 1,101,304	\$ —	\$ —	\$ —	\$ —	\$ 1,101,304	\$ —
Net cash provided by operating activities, excluding the 'other' segment	\$ 278,827	\$ 420,873	\$ 152,934	\$ 257,279	\$ 98,521	\$ 1,109,913	\$ 705,128

Arch Capital Group Ltd. and Subsidiaries Segment Information — Overview

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’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 of ACGL, the President and Chief Operating Officer of ACGL 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 core underwriting segments based on underwriting income or loss. The Company does not manage its assets by underwriting segment and, accordingly, investment income and other non-underwriting related items are not allocated to each underwriting segment.

The Company determined its reportable operating 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.

Insurance 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*: 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.

Arch Capital Group Ltd. and Subsidiaries

Segment Information — Overview

Reinsurance Segment

The reinsurance segment consists of the Company's 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, 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.

Mortgage Segment

The mortgage segment includes the Company's U.S. and international mortgage insurance and reinsurance operations as well as government sponsored enterprise ("GSE") credit-risk sharing transactions. Arch Mortgage Insurance Company ("Arch MI U.S.") is approved as an eligible mortgage insurer by Fannie Mae and Freddie Mac. On December 31, 2016, the Company completed the acquisition of United Guaranty Corporation ("UGC"). The acquisition of UGC expands the scale of Arch's existing mortgage insurance businesses by combining UGC's position as the market leader in the U.S. private mortgage insurance industry with Arch's financial strength and history of innovation, further diversifying the Company's business profile and customer base.

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 (loss) of investment funds accounted for using the equity method, net foreign exchange gains or losses, UGC transaction costs and other, income taxes and items related to the Company's non-cumulative preferred shares. Such amounts exclude the results of the 'other' segment.

Other Segment

The 'other' segment includes the results of Watford Holdings Ltd. and its subsidiary Watford Re Ltd., a multi-line Bermuda reinsurance company, which was launched in March 2014. The Company acts as Watford Re's reinsurance manager, and Highbridge Principal Strategies, LLC, a subsidiary of JPMorgan Chase & Co., manages Watford Re's investment assets, each under a long term services agreement. Pursuant to generally accepted accounting principles, Watford Re is considered a variable interest entity and the Company concluded that it is the primary beneficiary of Watford Re. As such, the Company consolidates the results of Watford Re in its consolidated financial statements, although it only owns 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. The portion of Watford's earnings attributable to third party investors is recorded in the consolidated statements of income as 'amounts attributable to noncontrolling interests.' Management measures segment performance for the 'other' segment based on net income or loss.

Arch Capital Group Ltd. and Subsidiaries
Segment Information

(U.S. Dollars in thousands)

	Three Months Ended December 31, 2016					
	Insurance	Reinsurance	Mortgage	Sub-total (Core)	Other	Total
Gross premiums written (1)	\$ 707,519	\$ 276,593	\$ 138,285	\$ 1,121,338	\$ 113,467	\$ 1,155,467
Premiums ceded	(241,658)	(70,473)	(45,341)	(356,413)	(6,077)	(283,152)
Net premiums written	465,861	206,120	92,944	764,925	107,390	872,315
Change in unearned premiums	48,226	45,721	(11,467)	82,480	14,060	96,540
Net premiums earned	514,087	251,841	81,477	847,405	121,450	968,855
Other underwriting income	—	13,744	4,354	18,098	824	18,922
Losses and loss adjustment expenses	(348,226)	(112,149)	(8,841)	(469,216)	(84,659)	(553,875)
Acquisition expenses	(75,247)	(51,575)	(7,400)	(134,222)	(34,204)	(168,426)
Other operating expenses (2)	(88,033)	(34,249)	(27,271)	(149,553)	(6,677)	(156,230)
Underwriting income (loss)	\$ 2,581	\$ 67,612	\$ 42,319	112,512	(3,266)	109,246
Net investment income				70,105	20,946	91,051
Net realized gains (losses)				(99,149)	6,088	(93,061)
Net impairment losses recognized in earnings				(13,593)	—	(13,593)
Equity in net income (loss) of investment funds accounted for using the equity method				16,421	—	16,421
Other income (loss)				(368)	—	(368)
Corporate expenses (2)				(11,470)	—	(11,470)
UGC transaction costs and other (2)				(34,587)	—	(34,587)
Interest expense				(15,481)	(3,058)	(18,539)
Net foreign exchange gains (losses)				35,221	2,955	38,176
Income before income taxes				59,611	23,665	83,276
Income tax benefit				12,298	—	12,298
Net income				71,909	23,665	95,574
Dividends attributable to redeemable noncontrolling interests				—	(4,588)	(4,588)
Amounts attributable to nonredeemable noncontrolling interests				—	(16,973)	(16,973)
Net income available to Arch				71,909	2,104	74,013
Preferred dividends				(11,617)	—	(11,617)
Net income available to Arch common shareholders				\$ 60,292	\$ 2,104	\$ 62,396
Underwriting Ratios						
Loss ratio	67.7%	44.5%	10.9%	55.4%	69.7%	57.2%
Acquisition expense ratio	14.6%	20.5%	9.1%	15.8%	28.2%	17.4%
Other operating expense ratio	17.1%	13.6%	33.5%	17.6%	5.5%	16.1%
Combined ratio	99.4%	78.6%	53.5%	88.8%	103.4%	90.7%
Net premiums written to gross premiums written	65.8%	74.5%	67.2%	68.2%	94.6%	75.5%
Total investable assets				\$ 18,636,189	\$ 1,857,763	\$ 20,493,952
Total assets				26,989,359	2,382,750	29,372,109
Total liabilities				18,855,858	1,205,126	20,060,984

- (1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions and are included in the gross premiums written of each segment. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.
- (2) Certain expenses have been excluded from 'corporate expenses' and 'other operating expenses' totaling \$25.2 million and \$9.4 million, respectively, and reflected in 'UGC transaction costs and other.' See 'Comments on Regulation G' for a further discussion of the presentation of such items.

Arch Capital Group Ltd. and Subsidiaries
Segment Information

(U.S. Dollars in thousands)

Three Months Ended
December 31, 2015

	Insurance	Reinsurance	Mortgage	Sub-total (Core)	Other	Total
Gross premiums written (1)	\$ 680,617	\$ 262,482	\$ 91,787	\$ 1,031,341	\$ 101,147	\$ 1,066,740
Premiums ceded	(229,011)	(62,417)	(4,660)	(292,543)	(4,961)	(231,756)
Net premiums written	451,606	200,065	87,127	738,798	96,186	834,984
Change in unearned premiums	52,919	62,957	(30,391)	85,485	23,051	108,536
Net premiums earned	504,525	263,022	56,736	824,283	119,237	943,520
Other underwriting income	526	3,736	3,461	7,723	898	8,621
Losses and loss adjustment expenses	(313,966)	(100,855)	(7,237)	(422,058)	(83,962)	(506,020)
Acquisition expenses	(70,440)	(53,252)	(14,030)	(137,722)	(33,687)	(171,409)
Other operating expenses	(92,623)	(41,629)	(21,274)	(155,526)	(6,043)	(161,569)
Underwriting income (loss)	\$ 28,022	\$ 71,022	\$ 17,656	116,700	(3,557)	113,143
Net investment income				66,970	28,930	95,900
Net realized gains (losses)				(84,302)	(59,465)	(143,767)
Net impairment losses recognized in earnings				(7,336)	—	(7,336)
Equity in net income (loss) of investment funds accounted for using the equity method				5,517	—	5,517
Other income (loss)				(451)	—	(451)
Corporate expenses				(12,243)	—	(12,243)
Interest expense				(12,757)	(3,070)	(15,827)
Net foreign exchange gains (losses)				2,286	2,234	4,520
Income before income taxes				74,384	(34,928)	39,456
Income tax expense				(11,450)	—	(11,450)
Net income				62,934	(34,928)	28,006
Dividends attributable to redeemable noncontrolling interests				—	(4,589)	(4,589)
Amounts attributable to nonredeemable noncontrolling interests				—	35,162	35,162
Net income available to Arch				62,934	(4,355)	58,579
Preferred dividends				(5,485)	—	(5,485)
Net income available to Arch common shareholders				\$ 57,449	\$ (4,355)	\$ 53,094
Underwriting Ratios						
Loss ratio	62.2%	38.3%	12.8%	51.2%	70.4%	53.6%
Acquisition expense ratio	14.0%	20.2%	24.7%	16.7%	28.3%	18.2%
Other operating expense ratio	18.4%	15.8%	37.5%	18.9%	5.1%	17.1%
Combined ratio	94.6%	74.3%	75.0%	86.8%	103.8%	88.9%
Net premiums written to gross premiums written	66.4%	76.2%	94.9%	71.6%	95.1%	78.3%
Total investable assets				\$ 14,644,831	\$ 1,696,107	\$ 16,340,938
Total assets				21,016,599	2,122,332	23,138,931
Total liabilities				14,956,274	1,072,102	16,028,376

- (1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions and are included in the gross premiums written of each segment. 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.

Arch Capital Group Ltd. and Subsidiaries
Segment Information

(U.S. Dollars in thousands)

	Year Ended December 31, 2016					
	Insurance	Reinsurance	Mortgage	Sub-total (Core)	Other	Total
Gross premiums written (1)	\$ 3,027,049	\$ 1,494,397	\$ 499,725	\$ 5,019,363	\$ 535,094	\$ 5,202,134
Premiums ceded	(954,768)	(440,541)	(108,259)	(1,501,760)	(21,306)	(1,170,743)
Net premiums written	2,072,281	1,053,856	391,466	3,517,603	513,788	4,031,391
Change in unearned premiums	1,623	2,376	(104,750)	(100,751)	(45,818)	(146,569)
Net premiums earned	2,073,904	1,056,232	286,716	3,416,852	467,970	3,884,822
Other underwriting income	—	36,403	17,024	53,427	3,746	57,173
Losses and loss adjustment expenses	(1,359,313)	(475,762)	(28,943)	(1,864,018)	(321,581)	(2,185,599)
Acquisition expenses	(304,066)	(212,375)	(32,065)	(548,506)	(129,527)	(678,033)
Other operating expenses (2)	(353,782)	(143,408)	(101,293)	(598,483)	(25,163)	(623,646)
Underwriting income (loss)	\$ 56,743	\$ 261,090	\$ 141,439	459,272	(4,555)	454,717
Net investment income				277,193	89,549	366,742
Net realized gains (losses)				69,586	68,000	137,586
Net impairment losses recognized in earnings				(30,442)	—	(30,442)
Equity in net income (loss) of investment funds accounted for using the equity method				48,475	—	48,475
Other income (loss)				(800)	—	(800)
Corporate expenses (2)				(49,396)	—	(49,396)
UGC transaction costs and other (2)				(41,729)	—	(41,729)
Interest expense				(53,464)	(12,788)	(66,252)
Net foreign exchange gains (losses)				31,409	5,242	36,651
Income before income taxes				710,104	145,448	855,552
Income tax expense				(31,375)	1	(31,374)
Net income				678,729	145,449	824,178
Dividends attributable to redeemable noncontrolling interests				—	(18,349)	(18,349)
Amounts attributable to nonredeemable noncontrolling interests				—	(113,091)	(113,091)
Net income available to Arch				678,729	14,009	692,738
Preferred dividends				(28,070)	—	(28,070)
Net income available to Arch common shareholders				\$ 650,659	\$ 14,009	\$ 664,668
Underwriting Ratios						
Loss ratio	65.5%	45.0%	10.1%	54.6%	68.7%	56.3%
Acquisition expense ratio	14.7%	20.1%	11.2%	16.1%	27.7%	17.5%
Other operating expense ratio	17.1%	13.6%	35.3%	17.5%	5.4%	16.1%
Combined ratio	97.3%	78.7%	56.6%	88.2%	101.8%	89.9%
Net premiums written to gross premiums written	68.5%	70.5%	78.3%	70.1%	96.0%	77.5%

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

(2) Certain expenses have been excluded from 'corporate expenses' and 'other operating expenses' totaling \$25.2 million and \$9.4 million, respectively, and reflected in 'UGC transaction costs and other.' See 'Comments on Regulation G' for a further discussion of the presentation of such items.

Arch Capital Group Ltd. and Subsidiaries
Segment Information

(U.S. Dollars in thousands)

	Year Ended December 31, 2015					
	Insurance	Reinsurance	Mortgage	Sub-total (Core)	Other	Total
Gross premiums written (1)	\$ 2,944,018	\$ 1,419,022	\$ 295,557	\$ 4,656,723	\$ 488,899	\$ 4,797,163
Premiums ceded	(898,347)	(380,614)	(28,064)	(1,305,151)	(22,940)	(979,632)
Net premiums written	2,045,671	1,038,408	267,493	3,351,572	465,959	3,817,531
Change in unearned premiums	(863)	38,727	(53,383)	(15,519)	(68,107)	(83,626)
Net premiums earned	2,044,808	1,077,135	214,110	3,336,053	397,852	3,733,905
Other underwriting income	1,993	10,606	18,430	31,029	4,468	35,497
Losses and loss adjustment expenses	(1,292,647)	(440,350)	(40,247)	(1,773,244)	(277,659)	(2,050,903)
Acquisition expenses	(299,317)	(223,632)	(45,076)	(568,025)	(113,451)	(681,476)
Other operating expenses	(354,416)	(155,811)	(82,370)	(592,597)	(14,919)	(607,516)
Underwriting income (loss)	\$ 100,421	\$ 267,948	\$ 64,847	433,216	(3,709)	429,507
Net investment income				271,680	76,410	348,090
Net realized gains (losses)				(99,133)	(86,709)	(185,842)
Net impairment losses recognized in earnings				(20,116)	—	(20,116)
Equity in net income (loss) of investment funds accounted for using the equity method				25,455	—	25,455
Other income (loss)				(399)	—	(399)
Corporate expenses				(49,745)	—	(49,745)
Interest expense				(41,518)	(4,356)	(45,874)
Net foreign exchange gains (losses)				62,624	3,494	66,118
Income before income taxes				582,064	(14,870)	567,194
Income tax expense				(40,612)	—	(40,612)
Net income				541,452	(14,870)	526,582
Dividends attributable to redeemable noncontrolling interests				—	(18,828)	(18,828)
Amounts attributable to nonredeemable noncontrolling interests				—	29,984	29,984
Net income available to Arch				541,452	(3,714)	537,738
Preferred dividends				(21,938)	—	(21,938)
Net income available to Arch common shareholders				\$ 519,514	\$ (3,714)	\$ 515,800
Underwriting Ratios						
Loss ratio	63.2%	40.9%	18.8%	53.2%	69.8%	54.9%
Acquisition expense ratio	14.6%	20.8%	21.1%	17.0%	28.5%	18.3%
Other operating expense ratio	17.3%	14.5%	38.5%	17.8%	3.7%	16.3%
Combined ratio	95.1%	76.2%	78.4%	88.0%	102.0%	89.5%
Net premiums written to gross premiums written	69.5%	73.2%	90.5%	72.0%	95.3%	79.6%

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions and are included in the gross premiums written of each segment. 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.

Arch Capital Group Ltd. and Subsidiaries
Segment Information — Insurance Segment

(U.S. Dollars in thousands)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Gross premiums written	\$ 707,519	\$ 758,934	\$ 762,043	\$ 798,553	\$ 680,617	\$ 3,027,049	\$ 2,944,018
Premiums ceded	(241,658)	(217,446)	(246,875)	(248,789)	(229,011)	(954,768)	(898,347)
Net premiums written	465,861	541,488	515,168	549,764	451,606	2,072,281	2,045,671
Change in unearned premiums	48,226	(22,410)	12,482	(36,675)	52,919	1,623	(863)
Net premiums earned	514,087	519,078	527,650	513,089	504,525	2,073,904	2,044,808
Other underwriting income	—	—	—	—	526	—	1,993
Losses and loss adjustment expenses	(348,226)	(332,845)	(354,633)	(323,609)	(313,966)	(1,359,313)	(1,292,647)
Acquisition expenses	(75,247)	(77,148)	(77,317)	(74,354)	(70,440)	(304,066)	(299,317)
Other operating expenses	(88,033)	(87,517)	(92,371)	(85,861)	(92,623)	(353,782)	(354,416)
Underwriting income	\$ 2,581	\$ 21,568	\$ 3,329	\$ 29,265	\$ 28,022	\$ 56,743	\$ 100,421
Underwriting Ratios							
Loss ratio	67.7 %	64.1 %	67.2 %	63.1 %	62.2 %	65.5 %	63.2 %
Acquisition expense ratio	14.6 %	14.9 %	14.7 %	14.5 %	14.0 %	14.7 %	14.6 %
Other operating expense ratio	17.1 %	16.9 %	17.5 %	16.7 %	18.4 %	17.1 %	17.3 %
Combined ratio	99.4 %	95.9 %	99.4 %	94.3 %	94.6 %	97.3 %	95.1 %
Catastrophic activity and prior year development:							
Current accident year catastrophic events, net of reinsurance and reinstatement premiums	4.6 %	0.3 %	3.9 %	0.1 %	0.4 %	2.2 %	1.0 %
Net (favorable) adverse development in prior year loss reserves, net of related adjustments	(1.5)%	(2.3)%	(0.8)%	(0.8)%	(2.1)%	(1.3)%	(2.0)%
Combined ratio excluding catastrophic activity and prior year development (1)	96.3 %	97.9 %	96.3 %	95.0 %	96.3 %	96.4 %	96.1 %
Net premiums written to gross premiums written	65.8 %	71.3 %	67.6 %	68.8 %	66.4 %	68.5 %	69.5 %

(1) See 'Comments on Regulation G' for further discussion.

Arch Capital Group Ltd. and Subsidiaries
Segment Information — Insurance Segment

(U.S. Dollars in thousands)

	Three Months Ended										Year Ended			
	December 31, 2016		September 30, 2016		June 30, 2016		March 31, 2016		December 31, 2015		December 31, 2016		December 31, 2015	
Net premiums written														
Professional lines (1)	\$ 103,965	22.3%	\$ 119,198	22.0%	\$ 107,519	20.9%	\$ 109,467	19.9%	\$ 104,183	23.1%	\$ 440,149	21.2%	\$ 434,024	21.2%
Construction and national accounts	74,158	15.9%	65,105	12.0%	85,260	16.5%	104,474	19.0%	65,544	14.5%	328,997	15.9%	299,463	14.6%
Programs	73,953	15.9%	91,165	16.8%	75,420	14.6%	89,784	16.3%	78,753	17.4%	330,322	15.9%	423,157	20.7%
Travel, accident and health	49,208	10.6%	63,453	11.7%	54,456	10.6%	57,263	10.4%	36,418	8.1%	224,380	10.8%	160,132	7.8%
Excess and surplus casualty (2)	46,719	10.0%	54,075	10.0%	60,412	11.7%	53,657	9.8%	50,345	11.1%	214,863	10.4%	204,856	10.0%
Property, energy, marine and aviation	33,115	7.1%	42,092	7.8%	50,194	9.7%	49,975	9.1%	30,668	6.8%	175,376	8.5%	203,186	9.9%
Lenders products	26,979	5.8%	28,633	5.3%	25,254	4.9%	24,784	4.5%	30,877	6.8%	105,650	5.1%	106,916	5.2%
Other (3)	57,764	12.4%	77,767	14.4%	56,653	11.0%	60,360	11.0%	54,818	12.1%	252,544	12.2%	213,937	10.5%
Total	\$ 465,861	100.0%	\$ 541,488	100.0%	\$ 515,168	100.0%	\$ 549,764	100.0%	\$ 451,606	100.0%	\$ 2,072,281	100.0%	\$ 2,045,671	100.0%
Client location														
United States	\$ 385,026	82.6%	\$ 446,403	82.4%	\$ 436,958	84.8%	\$ 450,028	81.9%	\$ 381,498	84.5%	\$ 1,718,415	82.9%	\$ 1,710,918	83.6%
Europe	35,588	7.6%	38,432	7.1%	34,318	6.7%	65,085	11.8%	41,337	9.2%	173,423	8.4%	187,020	9.1%
Asia and Pacific	26,053	5.6%	28,507	5.3%	22,855	4.4%	16,337	3.0%	14,391	3.2%	93,752	4.5%	64,638	3.2%
Other	19,194	4.1%	28,146	5.2%	21,037	4.1%	18,314	3.3%	14,380	3.2%	86,691	4.2%	83,095	4.1%
Total	\$ 465,861	100.0%	\$ 541,488	100.0%	\$ 515,168	100.0%	\$ 549,764	100.0%	\$ 451,606	100.0%	\$ 2,072,281	100.0%	\$ 2,045,671	100.0%
Underwriting location														
United States	\$ 378,121	81.2%	\$ 442,422	81.7%	\$ 423,465	82.2%	\$ 446,200	81.2%	\$ 369,805	81.9%	\$ 1,690,208	81.6%	\$ 1,673,867	81.8%
Europe	73,287	15.7%	85,279	15.7%	74,373	14.4%	94,095	17.1%	67,636	15.0%	327,034	15.8%	317,998	15.5%
Other	14,453	3.1%	13,787	2.5%	17,330	3.4%	9,469	1.7%	14,165	3.1%	55,039	2.7%	53,806	2.6%
Total	\$ 465,861	100.0%	\$ 541,488	100.0%	\$ 515,168	100.0%	\$ 549,764	100.0%	\$ 451,606	100.0%	\$ 2,072,281	100.0%	\$ 2,045,671	100.0%
Net premiums earned														
Professional lines (1)	\$ 107,277	20.9%	\$ 110,614	21.3%	\$ 108,556	20.6%	\$ 104,944	20.5%	\$ 103,393	20.5%	\$ 431,391	20.8%	\$ 424,968	20.8%
Construction and national accounts	80,525	15.7%	80,090	15.4%	84,414	16.0%	77,043	15.0%	77,762	15.4%	322,072	15.5%	296,828	14.5%
Programs	83,730	16.3%	84,889	16.4%	90,595	17.2%	98,501	19.2%	102,104	20.2%	357,715	17.2%	446,512	21.8%
Travel, accident and health	54,706	10.6%	57,097	11.0%	59,821	11.3%	47,545	9.3%	39,949	7.9%	219,169	10.6%	153,578	7.5%
Excess and surplus casualty (2)	52,239	10.2%	54,687	10.5%	57,155	10.8%	54,965	10.7%	50,669	10.0%	219,046	10.6%	208,091	10.2%
Property, energy, marine and aviation	47,521	9.2%	45,304	8.7%	47,076	8.9%	49,037	9.6%	52,115	10.3%	188,938	9.1%	216,127	10.6%
Lenders products	26,018	5.1%	25,090	4.8%	23,007	4.4%	24,402	4.8%	22,832	4.5%	98,517	4.8%	90,906	4.4%
Other (3)	62,071	12.1%	61,307	11.8%	57,026	10.8%	56,652	11.0%	55,701	11.0%	237,056	11.4%	207,798	10.2%
Total	\$ 514,087	100.0%	\$ 519,078	100.0%	\$ 527,650	100.0%	\$ 513,089	100.0%	\$ 504,525	100.0%	\$ 2,073,904	100.0%	\$ 2,044,808	100.0%

(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.

Arch Capital Group Ltd. and Subsidiaries
Segment Information — Reinsurance Segment

(U.S. Dollars in thousands)

	Three Months Ended					Year Ended	
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Gross premiums written	\$ 276,593	\$ 324,361	\$ 412,053	\$ 481,390	\$ 262,482	\$ 1,494,397	\$ 1,419,022
Premiums ceded	(70,473)	(89,551)	(119,951)	(160,566)	(62,417)	(440,541)	(380,614)
Net premiums written	206,120	234,810	292,102	320,824	200,065	1,053,856	1,038,408
Change in unearned premiums	45,721	17,117	(846)	(59,616)	62,957	2,376	38,727
Net premiums earned	251,841	251,927	291,256	261,208	263,022	1,056,232	1,077,135
Other underwriting income	13,744	2,216	20,118	325	3,736	36,403	10,606
Losses and loss adjustment expenses	(112,149)	(105,924)	(146,091)	(111,598)	(100,855)	(475,762)	(440,350)
Acquisition expenses	(51,575)	(50,217)	(55,796)	(54,787)	(53,252)	(212,375)	(223,632)
Other operating expenses	(34,249)	(35,589)	(37,115)	(36,455)	(41,629)	(143,408)	(155,811)
Underwriting income	\$ 67,612	\$ 62,413	\$ 72,372	\$ 58,693	\$ 71,022	\$ 261,090	\$ 267,948
Underwriting Ratios							
Loss ratio	44.5 %	42.0 %	50.2 %	42.7 %	38.3 %	45.0 %	40.9 %
Acquisition expense ratio	20.5 %	19.9 %	19.2 %	21.0 %	20.2 %	20.1 %	20.8 %
Other operating expense ratio	13.6 %	14.1 %	12.7 %	14.0 %	15.8 %	13.6 %	14.5 %
Combined ratio	78.6 %	76.0 %	82.1 %	77.7 %	74.3 %	78.7 %	76.2 %
Catastrophic activity and prior year development:							
Current accident year catastrophic events, net of reinsurance and reinstatement premiums	4.1 %	3.5 %	5.4 %	1.4 %	5.3 %	3.7 %	3.3 %
Net (favorable) adverse development in prior year loss reserves, net of related adjustments	(16.7)%	(24.0)%	(21.7)%	(18.0)%	(21.1)%	(20.1)%	(20.4)%
Combined ratio excluding catastrophic activity and prior year development (1)	91.2 %	96.5 %	98.4 %	94.3 %	90.1 %	95.1 %	93.3 %
Net premiums written to gross premiums written	74.5 %	72.4 %	70.9 %	66.6 %	76.2 %	70.5 %	73.2 %

(1) See 'Comments on Regulation G' for further discussion.

Arch Capital Group Ltd. and Subsidiaries
Segment Information — Reinsurance Segment

(U.S. Dollars in thousands)

	Three Months Ended												Year Ended	
	December 31, 2016		September 30, 2016		June 30, 2016		March 31, 2016		December 31, 2015		December 31, 2016		December 31, 2015	
Net premiums written														
Other specialty (1)	\$ 59,920	29.1%	\$ 74,169	31.6%	\$ 113,943	39.0%	\$ 100,820	31.4 %	\$ 62,219	31.1%	\$ 348,852	33.1%	\$ 298,794	28.8%
Casualty (2)	57,972	28.1%	59,242	25.2%	61,555	21.1%	126,483	39.4 %	57,062	28.5%	305,252	29.0%	303,093	29.2%
Property excluding property catastrophe (3)	53,261	25.8%	70,733	30.1%	69,831	23.9%	73,723	23.0 %	61,126	30.6%	267,548	25.4%	280,511	27.0%
Property catastrophe	16,520	8.0%	19,793	8.4%	41,771	14.3%	(2,295)	(0.7)%	8,765	4.4%	75,789	7.2%	91,620	8.8%
Marine and aviation	13,352	6.5%	5,435	2.3%	1,463	0.5%	17,540	5.5 %	8,308	4.2%	37,790	3.6%	50,834	4.9%
Other (4)	5,095	2.5%	5,438	2.3%	3,539	1.2%	4,553	1.4 %	2,585	1.3%	18,625	1.8%	13,556	1.3%
Total	\$ 206,120	100.0%	\$ 234,810	100.0%	\$ 292,102	100.0%	\$ 320,824	100.0 %	\$ 200,065	100.0%	\$ 1,053,856	100.0%	\$ 1,038,408	100.0%
Pro rata	\$ 152,951	74.2%	\$ 147,280	62.7%	\$ 146,231	50.1%	\$ 112,209	35.0 %	\$ 139,978	70.0%	\$ 558,671	53.0%	\$ 537,556	51.8%
Excess of loss	53,169	25.8%	87,530	37.3%	145,871	49.9%	208,615	65.0 %	60,087	30.0%	495,185	47.0%	500,852	48.2%
Total	\$ 206,120	100.0%	\$ 234,810	100.0%	\$ 292,102	100.0%	\$ 320,824	100.0 %	\$ 200,065	100.0%	\$ 1,053,856	100.0%	\$ 1,038,408	100.0%
Client location														
United States	\$ 75,801	36.8%	\$ 112,007	47.7%	\$ 126,449	43.3%	\$ 134,506	41.9 %	\$ 70,187	35.1%	\$ 448,763	42.6%	\$ 470,484	45.3%
Europe	57,445	27.9%	57,207	24.4%	90,688	31.0%	131,828	41.1 %	60,301	30.1%	337,168	32.0%	307,165	29.6%
Bermuda	24,481	11.9%	14,416	6.1%	14,685	5.0%	20,765	6.5 %	18,592	9.3%	74,347	7.1%	80,888	7.8%
Asia and Pacific	26,227	12.7%	28,794	12.3%	40,090	13.7%	16,710	5.2 %	24,254	12.1%	111,821	10.6%	94,609	9.1%
Other	22,166	10.8%	22,386	9.5%	20,190	6.9%	17,015	5.3 %	26,731	13.4%	81,757	7.8%	85,262	8.2%
Total	\$ 206,120	100.0%	\$ 234,810	100.0%	\$ 292,102	100.0%	\$ 320,824	100.0 %	\$ 200,065	100.0%	\$ 1,053,856	100.0%	\$ 1,038,408	100.0%
Underwriting location														
Bermuda	\$ 59,921	29.1%	\$ 60,651	25.8%	\$ 108,638	37.2%	\$ 48,415	15.1 %	\$ 50,684	25.3%	\$ 277,625	26.3%	\$ 281,985	27.2%
United States	85,597	41.5%	106,400	45.3%	100,436	34.4%	140,250	43.7 %	81,450	40.7%	432,683	41.1%	439,190	42.3%
Europe	54,376	26.4%	59,497	25.3%	71,804	24.6%	122,738	38.3 %	59,503	29.7%	308,415	29.3%	298,790	28.8%
Other	6,226	3.0%	8,262	3.5%	11,224	3.8%	9,421	2.9 %	8,428	4.2%	35,133	3.3%	18,443	1.8%
Total	\$ 206,120	100.0%	\$ 234,810	100.0%	\$ 292,102	100.0%	\$ 320,824	100.0 %	\$ 200,065	100.0%	\$ 1,053,856	100.0%	\$ 1,038,408	100.0%
Net premiums earned														
Other specialty (1)	\$ 69,566	27.6%	\$ 76,686	30.4%	\$ 109,493	37.6%	\$ 74,249	28.4 %	\$ 74,916	28.5%	\$ 329,994	31.2%	\$ 311,307	28.9%
Casualty (2)	74,536	29.6%	69,414	27.6%	80,157	27.5%	76,053	29.1 %	78,621	29.9%	300,160	28.4%	310,249	28.8%
Property excluding property catastrophe (3)	72,028	28.6%	72,550	28.8%	65,487	22.5%	71,953	27.5 %	73,856	28.1%	282,018	26.7%	295,487	27.4%
Property catastrophe	18,445	7.3%	17,582	7.0%	19,823	6.8%	17,953	6.9 %	21,945	8.3%	73,803	7.0%	96,865	9.0%
Marine and aviation	11,806	4.7%	10,336	4.1%	12,559	4.3%	17,878	6.8 %	11,064	4.2%	52,579	5.0%	50,808	4.7%
Other (4)	5,460	2.2%	5,359	2.1%	3,737	1.3%	3,122	1.2 %	2,620	1.0%	17,678	1.7%	12,419	1.2%
Total	\$ 251,841	100.0%	\$ 251,927	100.0%	\$ 291,256	100.0%	\$ 261,208	100.0 %	\$ 263,022	100.0%	\$ 1,056,232	100.0%	\$ 1,077,135	100.0%
Pro rata	\$ 135,711	53.9%	\$ 132,649	52.7%	\$ 153,933	52.9%	\$ 139,693	53.5 %	\$ 134,145	51.0%	\$ 561,986	53.2%	\$ 563,585	52.3%
Excess of loss	116,130	46.1%	119,278	47.3%	137,323	47.1%	121,515	46.5 %	128,877	49.0%	494,246	46.8%	513,550	47.7%
Total	\$ 251,841	100.0%	\$ 251,927	100.0%	\$ 291,256	100.0%	\$ 261,208	100.0 %	\$ 263,022	100.0%	\$ 1,056,232	100.0%	\$ 1,077,135	100.0%

(1) Includes proportional motor, surety, accident and health, workers' compensation catastrophe, agriculture, trade credit and other.

(2) Includes executive assurance, professional liability, workers' compensation, excess motor, healthcare and other.

(3) Includes facultative business.

(4) Includes life, casualty clash and other.

Arch Capital Group Ltd. and Subsidiaries
Segment Information — Mortgage Segment

(U.S. Dollars in thousands)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Gross premiums written	\$ 138,285	\$ 131,726	\$ 118,434	\$ 111,280	\$ 91,787	\$ 499,725	\$ 295,557
Premiums ceded	(45,341)	(51,182)	(6,969)	(4,767)	(4,660)	(108,259)	(28,064)
Net premiums written	92,944	80,544	111,465	106,513	87,127	391,466	267,493
Change in unearned premiums	(11,467)	(3,582)	(44,953)	(44,748)	(30,391)	(104,750)	(53,383)
Net premiums earned	81,477	76,962	66,512	61,765	56,736	286,716	214,110
Other underwriting income (1)	4,354	4,740	4,137	3,793	3,461	17,024	18,430
Losses and loss adjustment expenses	(8,841)	(11,107)	(366)	(8,629)	(7,237)	(28,943)	(40,247)
Acquisition expenses	(7,400)	(7,757)	(8,523)	(8,385)	(14,030)	(32,065)	(45,076)
Other operating expenses	(27,271)	(25,416)	(23,991)	(24,615)	(21,274)	(101,293)	(82,370)
Underwriting income	\$ 42,319	\$ 37,422	\$ 37,769	\$ 23,929	\$ 17,656	\$ 141,439	\$ 64,847
Underwriting Ratios							
Loss ratio	10.9 %	14.4 %	0.6 %	14.0 %	12.8 %	10.1 %	18.8 %
Acquisition expense ratio	9.1 %	10.1 %	12.8 %	13.6 %	24.7 %	11.2 %	21.1 %
Other operating expense ratio	33.5 %	33.0 %	36.1 %	39.9 %	37.5 %	35.3 %	38.5 %
Combined ratio	53.5 %	57.5 %	49.5 %	67.5 %	75.0 %	56.6 %	78.4 %
Net (favorable) adverse development in prior year loss reserves, net of related adjustments	(6.0)%	(3.2)%	(16.6)%	(4.4)%	(8.1)%	(7.4)%	(5.8)%
Combined ratio excluding prior year development (2)	59.5 %	60.7 %	66.1 %	71.9 %	83.1 %	64.0 %	84.2 %
Net premiums written to gross premiums written	67.2 %	61.1 %	94.1 %	95.7 %	94.9 %	78.3 %	90.5 %
Net premiums written by client location							
United States	\$ 80,957	\$ 77,488	\$ 66,261	\$ 55,803	\$ 51,724	\$ 280,509	\$ 193,617
Other	11,987	3,056	45,204	50,710	35,403	110,957	73,876
Total	\$ 92,944	\$ 80,544	\$ 111,465	\$ 106,513	\$ 87,127	\$ 391,466	\$ 267,493
United States %	87.1 %	96.2 %	59.4 %	52.4 %	59.4 %	71.7 %	72.4 %
Other %	12.9 %	3.8 %	40.6 %	47.6 %	40.6 %	28.3 %	27.6 %
Net premiums written by underwriting location							
United States	\$ 58,818	\$ 50,236	\$ 42,442	\$ 35,330	\$ 33,474	\$ 186,826	\$ 125,317
Other	34,126	30,308	69,023	71,183	53,653	204,640	142,176
Total	\$ 92,944	\$ 80,544	\$ 111,465	\$ 106,513	\$ 87,127	\$ 391,466	\$ 267,493
United States %	63.3 %	62.4 %	38.1 %	33.2 %	38.4 %	47.7 %	46.8 %
Other %	36.7 %	37.6 %	61.9 %	66.8 %	61.6 %	52.3 %	53.2 %

(1) Represents income earned on various risk-sharing products offered to government sponsored enterprises and mortgage lenders.

(2) See 'Comments on Regulation G' for further discussion.

Arch Capital Group Ltd. and Subsidiaries
Segment Information — Mortgage Segment

(U.S. Dollars in millions)	December 31, 2016 (1)		September 30, 2016		June 30, 2016		March 31, 2016	
Insurance In Force (IIF) (2)								
U.S. mortgage insurance	\$ 234,518	74.3 %	\$ 40,258	34.7 %	\$ 33,367	30.7 %	\$ 28,433	30.9 %
Mortgage reinsurance	24,315	7.7 %	22,071	19.0 %	22,242	20.5 %	22,393	24.3 %
Other (3)	56,776	18.0 %	53,826	46.3 %	52,926	48.8 %	41,172	44.8 %
Total	<u>\$ 315,609</u>	<u>100.0 %</u>	<u>\$ 116,155</u>	<u>100.0 %</u>	<u>\$ 108,535</u>	<u>100.0 %</u>	<u>\$ 91,998</u>	<u>100.0 %</u>
Risk In Force (RIF) (4)								
U.S. mortgage insurance	\$ 59,712	92.7 %	\$ 10,168	68.6 %	\$ 8,396	64.8 %	\$ 7,165	62.5 %
Mortgage reinsurance	2,489	3.9 %	2,557	17.2 %	2,567	19.8 %	2,661	23.2 %
Other (3)	2,242	3.5 %	2,104	14.2 %	1,993	15.4 %	1,636	14.3 %
Total	<u>\$ 64,443</u>	<u>100.0 %</u>	<u>\$ 14,829</u>	<u>100.0 %</u>	<u>\$ 12,956</u>	<u>100.0 %</u>	<u>\$ 11,462</u>	<u>100.0 %</u>
Supplemental disclosures for U.S. mortgage insurance:								
Total RIF by credit quality (FICO score):								
>=740	\$ 34,867	58.4 %	\$ 5,817	57.2 %	\$ 4,766	56.8 %	\$ 3,995	55.8 %
680-739	18,976	31.8 %	3,425	33.7 %	2,779	33.1 %	2,354	32.9 %
620-679	5,050	8.5 %	834	8.2 %	753	9.0 %	712	9.9 %
<620	819	1.4 %	92	0.9 %	98	1.2 %	104	1.5 %
Total	<u>\$ 59,712</u>	<u>100.0 %</u>	<u>\$ 10,168</u>	<u>100.0 %</u>	<u>\$ 8,396</u>	<u>100.0 %</u>	<u>\$ 7,165</u>	<u>100.0 %</u>
Weighted average FICO score	743		742		741		739	
Total RIF by Loan-To-Value (LTV):								
95.01% and above	\$ 5,781	9.7 %	\$ 1,221	12.0 %	\$ 1,135	13.5 %	\$ 1,052	14.7 %
90.01% to 95.00%	32,986	55.2 %	5,430	53.4 %	4,379	52.2 %	3,677	51.3 %
85.01% to 90.00%	18,140	30.4 %	2,982	29.3 %	2,438	29.0 %	2,056	28.7 %
85.00% and below	2,805	4.7 %	535	5.3 %	444	5.3 %	380	5.3 %
Total	<u>\$ 59,712</u>	<u>100.0 %</u>	<u>\$ 10,168</u>	<u>100.0 %</u>	<u>\$ 8,396</u>	<u>100.0 %</u>	<u>\$ 7,165</u>	<u>100.0 %</u>
Weighted average LTV	92.9%		92.9%		92.9%		93.0%	
Total RIF by State:								
Texas	\$ 4,961	8.3 %	\$ 583	5.7 %	\$ 469	5.6 %	\$ 401	5.6 %
California	3,222	5.4 %	865	8.5 %	727	8.7 %	622	8.7 %
Virginia	2,586	4.3 %	377	3.7 %	300	3.6 %	237	3.3 %
Florida	2,367	4.0 %	544	5.4 %	422	5.0 %	345	4.8 %
Washington	2,331	3.9 %	302	3.0 %	279	3.3 %	261	3.6 %
Georgia	2,111	3.5 %	301	3.0 %	247	2.9 %	215	3.0 %
Illinois	2,090	3.5 %	348	3.4 %	279	3.3 %	218	3.0 %
Maryland	2,080	3.5 %	299	2.9 %	241	2.9 %	199	2.8 %
Minnesota	1,986	3.3 %	388	3.8 %	351	4.2 %	319	4.5 %
Ohio	1,916	3.2 %	312	3.1 %	260	3.1 %	212	3.0 %
Others	34,062	57.0 %	5,849	57.5 %	4,821	57.4 %	4,136	57.7 %
Total	<u>\$ 59,712</u>	<u>100.0 %</u>	<u>\$ 10,168</u>	<u>100.0 %</u>	<u>\$ 8,396</u>	<u>100.0 %</u>	<u>\$ 7,165</u>	<u>100.0 %</u>
Weighted average coverage (end of period RIF divided by IIF)	25.5%		25.3%		25.2%		25.2%	
Analysts' persistency (5)	76.1%		75.4%		75.6%		74.2%	
Risk-to-capital ratio (6)	12.0:1		15.4:1		12.4:1		11.1:1	
U.S. mortgage insurance total RIF, net of reinsurance (7)	\$ 42,183		\$ 8,918		\$ 7,198		\$ 6,274	

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|--|---|
| <p>(1) Reflects the acquisition of UGC on December 31, 2016.</p> <p>(2) The aggregate dollar amount of each insured mortgage loan's current principal balance.</p> <p>(3) Includes GSE credit risk-sharing transactions and international insurance business.</p> <p>(4) The aggregate 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 risk-sharing or reinsurance transactions.</p> | <p>(5) Represents the % of IIF at the beginning of a 12-month period that remained in force at the end of the period.</p> <p>(6) Represents total current (non-delinquent) RIF, net of reinsurance, divided by total statutory capital. Ratio calculated for combined Arch MI U.S. and key UGC subsidiaries only (estimate for December 31, 2016).</p> <p>(7) Total RIF for the U.S. mortgage insurance operations (see note 4) after external reinsurance.</p> |
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Arch Capital Group Ltd. and Subsidiaries
Segment Information — Mortgage Segment

(U.S. Dollars in millions, except policy/loan/claim count)

	Three Months Ended								Year Ended			
	December 31, 2016		September 30, 2016		June 30, 2016		March 31, 2016		December 31, 2016			
Supplemental disclosures for U.S. mortgage insurance:												
Total new insurance written (NIW) (1)	\$	8,788	\$	8,753	\$	6,420	\$	2,906	\$	26,867		
Total NIW by credit quality (FICO score):												
>=740	\$	5,181	59.0%	\$	5,187	59.3%	\$	3,950	61.5%	\$	16,126	60.0%
680-739		3,124	35.5%		3,074	35.1%		2,162	33.7%		9,319	34.7%
620-679		483	5.5%		492	5.6%		307	4.8%		1,421	5.3%
<620		—	—%		—	—%		1	—%		1	—%
Total	\$	8,788	100.0%	\$	8,753	100.0%	\$	6,420	100.0%	\$	26,867	100.0%
Total NIW by LTV:												
95.01% and above	\$	543	6.2%	\$	507	5.8%	\$	551	8.6%	\$	1,776	6.6%
90.01% to 95.00%		4,175	47.5%		4,261	48.7%		2,983	46.5%		12,652	47.1%
85.01% to 90.00%		2,815	32.0%		2,883	32.9%		2,078	32.4%		8,797	32.7%
85.01% and below		1,255	14.3%		1,102	12.6%		808	12.6%		4,777	16.4%
Total	\$	8,788	100.0%	\$	8,753	100.0%	\$	6,420	100.0%	\$	26,867	100.0%
Total NIW purchase vs. refinance:												
Purchase	\$	6,964	79.2%	\$	7,264	83.0%	\$	5,309	82.7%	\$	21,592	80.4%
Refinance		1,824	20.8%		1,489	17.0%		1,111	17.3%		5,275	19.6%
Total	\$	8,788	100.0%	\$	8,753	100.0%	\$	6,420	100.0%	\$	26,867	100.0%
Ending number of policies in force (PIF) (3)		1,153,630		199,661		172,666		153,984				
Rollforward of insured loans in default:												
Beginning delinquent number of loans		2,423		2,245		2,325		2,702			2,702	
Plus: new notices		1,161		1,251		1,033		1,048			4,493	
Less: cures		(1,026)		(925)		(919)		(1,206)			(4,076)	
Less: paid claims		(153)		(151)		(193)		(222)			(719)	
Less: delinquent rescissions and denials		(2)		3		(1)		3			3	
Plus: acquired delinquent loans (3)		27,288		—		—		—			27,288	
Ending delinquent number of loans (3)		29,691		2,423		2,245		2,325			29,691	
Ending percentage of loans in default (3)		2.6%		1.2%		1.3%		1.5%				
Losses:												
Number of claims paid		153		151		193		222			719	
Total paid claims (in thousands)	\$	6,080		\$	5,513		\$	7,744		\$	9,168	
Average per claim (in thousands)	\$	39.7		\$	36.5		\$	40.1		\$	41.3	
Severity (2)		92.3%		90.4%		94.8%		93.9%			93.1%	
Average reserve per default (in thousands) (3)	\$	20.5		\$	25.2		\$	27.8		\$	32.1	

- (1) The original principal balance of all loans that received coverage during the period.
(2) Represents total paid claims divided by RIF of loans for which claims were paid.
(3) Reflects the acquisition of UGC on December 31, 2016, including first lien primary and pool policies.

Arch Capital Group Ltd. and Subsidiaries
Segment Information — Selected Information on Losses and Loss Adjustment Expenses

(U.S. Dollars in thousands)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Components of losses and loss adjustment expenses incurred (1)							
Paid losses and loss adjustment expenses	\$ 431,071	\$ 407,352	\$ 484,033	\$ 391,543	\$ 445,914	\$ 1,713,999	\$ 1,811,456
Change in unpaid losses and loss adjustment expenses	38,145	42,524	17,057	52,293	(23,856)	150,019	(38,212)
Total losses and loss adjustment expenses	<u>\$ 469,216</u>	<u>\$ 449,876</u>	<u>\$ 501,090</u>	<u>\$ 443,836</u>	<u>\$ 422,058</u>	<u>\$ 1,864,018</u>	<u>\$ 1,773,244</u>
Estimated net (favorable) adverse development in prior year loss reserves, net of related adjustments (1)							
Net impact on underwriting results:							
Insurance	\$ (7,523)	\$ (12,043)	\$ (4,133)	\$ (4,177)	\$ (10,561)	\$ (27,876)	\$ (40,255)
Reinsurance	(41,965)	(60,374)	(63,187)	(46,943)	(55,411)	(212,469)	(219,567)
Mortgage	(4,911)	(2,498)	(11,066)	(2,735)	(4,579)	(21,210)	(12,464)
Total	<u>\$ (54,399)</u>	<u>\$ (74,915)</u>	<u>\$ (78,386)</u>	<u>\$ (53,855)</u>	<u>\$ (70,551)</u>	<u>\$ (261,555)</u>	<u>\$ (272,286)</u>
Impact on losses and loss adjustment expenses:							
Insurance	\$ (8,281)	\$ (13,716)	\$ (4,905)	\$ (6,150)	\$ (10,030)	\$ (33,052)	\$ (47,246)
Reinsurance	(42,096)	(59,481)	(69,836)	(47,364)	(59,091)	(218,777)	(224,841)
Mortgage	(4,911)	(2,498)	(11,066)	(2,735)	(4,579)	(21,210)	(12,294)
Total	<u>\$ (55,288)</u>	<u>\$ (75,695)</u>	<u>\$ (85,807)</u>	<u>\$ (56,249)</u>	<u>\$ (73,700)</u>	<u>\$ (273,039)</u>	<u>\$ (284,381)</u>
Impact on acquisition expenses:							
Insurance	\$ 758	\$ 1,673	\$ 772	\$ 1,973	\$ (531)	\$ 5,176	\$ 6,991
Reinsurance	131	(893)	6,649	421	3,680	6,308	5,274
Mortgage	—	—	—	—	—	—	(170)
Total	<u>\$ 889</u>	<u>\$ 780</u>	<u>\$ 7,421</u>	<u>\$ 2,394</u>	<u>\$ 3,149</u>	<u>\$ 11,484</u>	<u>\$ 12,095</u>
Impact on combined ratio:							
Insurance	(1.5)%	(2.3)%	(0.8)%	(0.8)%	(2.1)%	(1.3)%	(2.0)%
Reinsurance	(16.7)%	(24.0)%	(21.7)%	(18.0)%	(21.1)%	(20.1)%	(20.4)%
Mortgage	(6.0)%	(3.2)%	(16.6)%	(4.4)%	(8.1)%	(7.4)%	(5.8)%
Total	(6.4)%	(8.8)%	(8.9)%	(6.4)%	(8.6)%	(7.7)%	(8.2)%
Impact on loss ratio:							
Insurance	(1.6)%	(2.6)%	(0.9)%	(1.2)%	(2.0)%	(1.6)%	(2.3)%
Reinsurance	(16.7)%	(23.6)%	(24.0)%	(18.1)%	(22.5)%	(20.7)%	(20.9)%
Mortgage	(6.0)%	(3.2)%	(16.6)%	(4.4)%	(8.1)%	(7.4)%	(5.7)%
Total	(6.5)%	(8.9)%	(9.7)%	(6.7)%	(8.9)%	(8.0)%	(8.5)%
Impact on acquisition expense ratio:							
Insurance	0.1 %	0.3 %	0.1 %	0.4 %	(0.1)%	0.3 %	0.3 %
Reinsurance	— %	(0.4)%	2.3 %	0.1 %	1.4 %	0.6 %	0.5 %
Mortgage	— %	— %	— %	— %	— %	— %	(0.1)%
Total	0.1 %	0.1 %	0.8 %	0.3 %	0.3 %	0.3 %	0.3 %
Estimated net losses incurred from current accident year catastrophic events (2)							
Insurance	\$ 23,725	\$ 1,774	\$ 20,592	\$ 428	\$ 1,888	\$ 46,519	\$ 19,633
Reinsurance	10,349	8,931	15,705	3,774	13,972	38,759	35,546
Total	<u>\$ 34,074</u>	<u>\$ 10,705</u>	<u>\$ 36,297</u>	<u>\$ 4,202</u>	<u>\$ 15,860</u>	<u>\$ 85,278</u>	<u>\$ 55,179</u>
Impact on combined ratio:							
Insurance	4.6 %	0.3 %	3.9 %	0.1 %	0.4 %	2.2 %	1.0 %
Reinsurance	4.1 %	3.5 %	5.4 %	1.4 %	5.3 %	3.7 %	3.3 %
Total	4.0 %	1.3 %	4.1 %	0.5 %	1.9 %	2.5 %	1.7 %

(1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.

(2) Equals estimated losses from catastrophic events occurring in the current accident year, net of reinsurance and reinstatement premiums. Amounts shown for the insurance segment are for named catastrophic events only. Amounts shown for the reinsurance segment include (i) named events with over \$5 million of losses incurred by its Bermuda and Europe operations and (ii) all catastrophe losses incurred by its U.S. operations. Amounts not applicable for the mortgage segment.

Arch Capital Group Ltd. and Subsidiaries
Investment Information — Investable Asset Summary and Investment Portfolio Metrics

The following table summarizes the Company's investable assets and portfolio metrics. The December 31, 2016 balances include the impact of the UGC acquisition (1):

(U.S. Dollars in thousands)	December 31, 2016		September 30, 2016		June 30, 2016		March 31, 2016		December 31, 2015	
Investable assets (1) (2):										
Fixed maturities available for sale, at fair value	\$ 13,426,577	72.0%	\$ 11,026,929	68.7 %	\$ 11,050,464	72.8 %	\$ 10,645,257	71.2 %	\$ 10,459,353	71.4 %
Fixed maturities, at fair value (3)	364,856	2.0%	423,733	2.6 %	377,482	2.5 %	371,298	2.5 %	367,780	2.5 %
Fixed maturities pledged under securities lending agreements, at fair value	730,341	3.9%	442,099	2.8 %	319,672	2.1 %	558,603	3.7 %	373,304	2.5 %
Total fixed maturities	14,521,774	77.9%	11,892,761	74.1 %	11,747,618	77.4 %	11,575,158	77.4 %	11,200,437	76.5 %
Short-term investments available for sale, at fair value	612,005	3.3%	1,184,408	7.4 %	853,531	5.6 %	623,844	4.2 %	587,904	4.0 %
Short-term investments, at fair value (3)	64,542	0.3%	—	— %	—	— %	—	— %	—	— %
Short-term investments pledged under securities lending agreements, at fair value	—	—%	—	— %	—	— %	6,000	— %	—	— %
Cash	768,049	4.1%	511,784	3.2 %	442,066	2.9 %	479,545	3.2 %	444,776	3.0 %
Equity securities available for sale, at fair value	518,041	2.8%	521,587	3.3 %	490,815	3.2 %	506,915	3.4 %	618,405	4.2 %
Equity securities, at fair value (3)	25,328	0.1%	27,644	0.2 %	7,090	— %	437	— %	798	— %
Equity securities pledged under securities lending agreements, at fair value	14,639	0.1%	11,658	0.1 %	11,101	0.1 %	16,163	0.1 %	10,777	0.1 %
Other investments available for sale, at fair value	167,970	0.9%	168,243	1.0 %	182,957	1.2 %	195,079	1.3 %	300,476	2.1 %
Other investments, at fair value (3)	1,108,871	6.0%	1,065,853	6.6 %	1,003,621	6.6 %	1,010,450	6.8 %	908,809	6.2 %
Investments accounted for using the equity method (4)	811,273	4.4%	797,542	5.0 %	685,766	4.5 %	628,832	4.2 %	592,973	4.0 %
Securities transactions entered into but not settled at the balance sheet date	23,697	0.1%	(138,760)	(0.9)%	(246,257)	(1.6)%	(88,129)	(0.6)%	(20,524)	(0.1)%
Total investable assets managed by the Company	\$ 18,636,189	100.0%	\$ 16,042,720	100.0 %	\$ 15,178,308	100.0 %	\$ 14,954,294	100.0 %	\$ 14,644,831	100.0 %
Average effective duration (in years)	3.64		3.31		3.85		3.56		3.43	
Average S&P/Moody's credit ratings (5)	AA-/Aa3		AA/Aa2		AA/Aa2		AA/Aa2		AA/Aa2	
Embedded book yield (before investment expenses)	2.03%		1.78%		1.92%		2.07%		2.16%	

(1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results. Such amounts are summarized as follows:

(U.S. Dollars in thousands)	December 31, 2016		September 30, 2016		June 30, 2016		March 31, 2016		December 31, 2015	
Investable assets in 'other' segment:										
Cash	\$ 74,893		\$ 67,032		\$ 74,525		\$ 78,416		\$ 108,550	
Investments accounted for using the fair value option	1,857,623		1,872,343		1,677,836		1,757,147		1,617,107	
Securities sold but not yet purchased	(33,157)		(52,195)		(54,668)		(48,279)		(30,583)	
Securities transactions entered into but not settled at the balance sheet date	(41,596)		(50,169)		5,738		(77,422)		1,033	
Total investable assets included in 'other' segment	\$ 1,857,763		\$ 1,837,011		\$ 1,703,431		\$ 1,709,862		\$ 1,696,107	

(2) This table excludes the collateral received and reinvested and includes the securities pledged under securities lending agreements, at fair value.

(3) Represents investments which are carried at fair value under the fair value option and reflected as "investments accounted for using the fair value option" on the balance sheet.

(4) Changes in the carrying value of investment funds accounted for using the equity method are recorded as "equity in net income (loss) of investment funds accounted for using the equity method" rather than as an unrealized gain or loss component of accumulated other comprehensive income.

(5) Average credit ratings on the Company's investment portfolio on securities with ratings assigned by Standard & Poor's ("S&P") and Moody's Investors Service ("Moody's").

Arch Capital Group Ltd. and Subsidiaries
Investment Information — Composition of Net Investment Income, Yield and Total Return

The following table summarizes the Company's net investment income, yield and total return:

(U.S. Dollars in thousands, except share data)

	Three Months Ended					Year Ended	
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Composition of net investment income (1):							
Fixed maturities	\$ 60,402	\$ 58,542	\$ 64,365	\$ 59,001	\$ 58,942	\$ 242,310	\$ 241,389
Term loan investments (2)	9,626	6,397	5,669	4,858	5,639	26,550	19,290
Equity securities (dividends)	2,450	3,633	3,984	3,756	5,111	13,823	14,339
Short-term investments	1,720	823	618	458	121	3,619	574
Other (3)	9,120	8,706	8,152	13,672	8,259	39,650	41,721
Gross investment income	83,318	78,101	82,788	81,745	78,072	325,952	317,313
Investment expenses	(13,313)	(11,819)	(12,391)	(11,336)	(11,102)	(48,859)	(45,633)
Net investment income	<u>\$ 70,005</u>	<u>\$ 66,282</u>	<u>\$ 70,397</u>	<u>\$ 70,409</u>	<u>\$ 66,970</u>	<u>\$ 277,093</u>	<u>\$ 271,680</u>
Per share	\$ 0.56	\$ 0.53	\$ 0.57	\$ 0.57	\$ 0.53	\$ 2.22	\$ 2.16
Investment income yield, at amortized cost (1) (4):							
Pre-tax	1.92 %	1.81%	2.08%	2.13%	2.02 %	1.92%	2.06%
After-tax	1.80 %	1.70%	1.91%	1.91%	1.82 %	1.77%	1.88%
Total return (1) (5):							
Including effects of foreign exchange	(1.89)%	0.88%	1.27%	1.82%	(0.33)%	2.07%	0.41%
Excluding effects of foreign exchange	(1.66)%	0.91%	1.63%	1.48%	(0.10)%	2.35%	1.62%

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) Included in "investments accounted for using the fair value option" on the Company's balance sheet.
- (3) Includes income on other investments, funds held balances, cash balances and other.
- (4) Presented on an annualized basis and excluding the impact of investments for which returns are not included within investment income, such as investments accounted for using the equity method and certain equities.
- (5) Includes net 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 or losses generated by the Company's investment portfolio. Total return is calculated on a pre-tax basis and before investment expenses.

Arch Capital Group Ltd. and Subsidiaries
Investment Information — Composition of Fixed Maturities

The following table summarizes the Company's fixed maturities and fixed maturities pledged under securities lending agreements (1):

(U.S. Dollars in thousands)

	Fair Value	Gross Unrealized Gains	Gross Unrealized Losses	Net Unrealized Gains (Losses)	Amortized Cost	Fair Value / Amortized Cost	% of Total
At December 31, 2016							
Corporates	\$ 4,696,079	\$ 32,354	\$ (69,044)	\$ (36,690)	\$ 4,732,769	99.2%	32.3%
U.S. government and government agencies	2,804,811	9,314	(24,464)	(15,150)	2,819,961	99.5%	19.3%
Agency mortgage-backed securities	393,188	1,426	(6,901)	(5,475)	398,663	98.6%	2.7%
Non-agency mortgage-backed securities	111,489	4,129	(1,728)	2,401	109,088	102.2%	0.8%
Agency commercial mortgage-backed securities	12,900	28	(22)	6	12,894	100.0%	0.1%
Non-agency commercial mortgage-backed securities	523,151	2,848	(6,486)	(3,638)	526,789	99.3%	3.6%
Municipal bonds	3,713,434	8,554	(29,154)	(20,600)	3,734,034	99.4%	25.6%
Non-U.S. government securities	1,142,735	20,131	(58,438)	(38,307)	1,181,042	96.8%	7.9%
Asset-backed securities	1,123,987	6,897	(6,526)	371	1,123,616	100.0%	7.7%
Total	\$ 14,521,774	\$ 85,681	\$ (202,763)	\$ (117,082)	\$ 14,638,856	99.2%	100.0%
At December 31, 2015							
Corporates	\$ 2,960,694	\$ 15,978	\$ (60,508)	\$ (44,530)	\$ 3,005,224	98.5%	26.4%
U.S. government and government agencies	2,423,455	6,228	(9,978)	(3,750)	2,427,205	99.8%	21.6%
Agency mortgage-backed securities	562,162	1,925	(3,612)	(1,687)	563,849	99.7%	5.0%
Non-agency mortgage-backed securities	250,395	7,947	(1,722)	6,225	244,170	102.5%	2.2%
Agency commercial mortgage-backed securities	75,252	239	(278)	(39)	75,291	99.9%	0.7%
Non-agency commercial mortgage-backed securities	688,900	3,030	(6,700)	(3,670)	692,570	99.5%	6.2%
Municipal bonds	1,626,281	27,014	(1,534)	25,480	1,600,801	101.6%	14.5%
Non-U.S. government securities	992,792	10,414	(39,122)	(28,708)	1,021,500	97.2%	8.9%
Asset-backed securities	1,620,506	3,307	(12,951)	(9,644)	1,630,150	99.4%	14.5%
Total	\$ 11,200,437	\$ 76,082	\$ (136,405)	\$ (60,323)	\$ 11,260,760	99.5%	100.0%

(1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.

Arch Capital Group Ltd. and Subsidiaries
Investment Information — Credit Quality Distribution and Maturity Profile

The following table summarizes the credit quality distribution and maturity profile of the Company's fixed maturities and fixed maturities pledged under securities lending agreements (1):

(U.S. Dollars in thousands)

	December 31,		September 30,		June 30,		March 31,		December 31,	
	2016		2016		2016		2016		2015	
Credit quality distribution of total fixed maturities (2) (3):										
U.S. government and government agencies (4)	\$ 3,210,899	22.1 %	\$ 3,579,338	30.1 %	\$ 3,364,709	28.6 %	\$ 3,611,793	31.2 %	\$ 3,060,869	27.3 %
AAA	3,898,848	26.8 %	3,383,665	28.5 %	3,421,385	29.1 %	3,797,393	32.8 %	4,000,750	35.7 %
AA	3,156,509	21.7 %	2,137,615	18.0 %	2,255,666	19.2 %	1,524,692	13.2 %	1,651,760	14.7 %
A	2,339,344	16.1 %	1,581,646	13.3 %	1,541,075	13.1 %	1,512,085	13.1 %	1,431,138	12.8 %
BBB	1,206,002	8.3 %	470,613	4.0 %	525,084	4.5 %	484,968	4.2 %	457,251	4.1 %
BB	226,892	1.6 %	277,589	2.3 %	232,859	2.0 %	233,348	2.0 %	203,426	1.8 %
B	156,592	1.1 %	163,327	1.4 %	151,549	1.3 %	164,744	1.4 %	138,770	1.2 %
Lower than B	91,721	0.6 %	101,602	0.9 %	96,726	0.8 %	100,441	0.9 %	130,545	1.2 %
Not rated	234,967	1.6 %	197,366	1.7 %	158,565	1.3 %	145,694	1.3 %	125,928	1.1 %
Total fixed maturities, at fair value	<u>\$ 14,521,774</u>	<u>100.0 %</u>	<u>\$ 11,892,761</u>	<u>100.0 %</u>	<u>\$ 11,747,618</u>	<u>100.0 %</u>	<u>\$ 11,575,158</u>	<u>100.0 %</u>	<u>\$ 11,200,437</u>	<u>100.0 %</u>
Maturity profile of total fixed maturities (2):										
Due in one year or less	\$ 582,729	4.0 %	\$ 308,548	2.6 %	\$ 272,242	2.3 %	\$ 295,627	2.6 %	\$ 357,343	3.2 %
Due after one year through five years	6,367,486	43.8 %	5,484,120	46.1 %	5,225,233	44.5 %	5,391,177	46.6 %	4,790,737	42.8 %
Due after five years through ten years	4,753,999	32.7 %	2,873,200	24.2 %	2,907,672	24.8 %	2,561,411	22.1 %	2,318,165	20.7 %
Due after 10 years	652,845	4.5 %	790,392	6.6 %	677,863	5.8 %	642,505	5.6 %	536,977	4.8 %
	<u>12,357,059</u>	<u>85.1 %</u>	<u>9,456,260</u>	<u>79.5 %</u>	<u>9,083,010</u>	<u>77.3 %</u>	<u>8,890,720</u>	<u>76.8 %</u>	<u>8,003,222</u>	<u>71.5 %</u>
Mortgage-backed securities	504,677	3.5 %	577,097	4.9 %	674,451	5.7 %	714,001	6.2 %	812,557	7.3 %
Commercial mortgage-backed securities	536,051	3.7 %	618,235	5.2 %	624,391	5.3 %	577,853	5.0 %	764,152	6.8 %
Asset-backed securities	1,123,987	7.7 %	1,241,169	10.4 %	1,365,766	11.6 %	1,392,584	12.0 %	1,620,506	14.5 %
Total fixed maturities, at fair value	<u>\$ 14,521,774</u>	<u>100.0 %</u>	<u>\$ 11,892,761</u>	<u>100.0 %</u>	<u>\$ 11,747,618</u>	<u>100.0 %</u>	<u>\$ 11,575,158</u>	<u>100.0 %</u>	<u>\$ 11,200,437</u>	<u>100.0 %</u>

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) This table excludes the collateral received and reinvested and includes the fixed maturities pledged under securities lending agreements, at fair value.
- (3) 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.
- (4) Includes U.S. government-sponsored agency mortgage backed securities and agency commercial mortgage backed securities.

Arch Capital Group Ltd. and Subsidiaries
Investment Information — Analysis of Corporate Exposures

The following table summarizes the Company's corporate bonds by sector (1):

(U.S. Dollars in thousands)	December 31, 2016		September 30, 2016		June 30, 2016		March 31, 2016		December 31, 2015	
Sector:										
Industrials	\$ 2,617,467	55.7 %	\$ 1,637,201	50.4 %	\$ 1,638,355	51.0 %	\$ 1,598,431	51.1 %	\$ 1,512,970	51.1 %
Financials	1,321,493	28.1 %	1,056,883	32.5 %	1,025,714	31.9 %	966,692	30.9 %	997,189	33.7 %
Utilities	366,440	7.8 %	178,199	5.5 %	225,403	7.0 %	207,371	6.6 %	180,405	6.1 %
Covered bonds	182,132	3.9 %	168,133	5.2 %	154,194	4.8 %	171,101	5.5 %	163,739	5.5 %
All other (2)	208,547	4.4 %	210,005	6.5 %	166,937	5.2 %	181,928	5.8 %	106,391	3.6 %
Total fixed maturities, at fair value	<u>\$ 4,696,079</u>	<u>100.0 %</u>	<u>\$ 3,250,421</u>	<u>100.0 %</u>	<u>\$ 3,210,603</u>	<u>100.0 %</u>	<u>\$ 3,125,523</u>	<u>100.0 %</u>	<u>\$ 2,960,694</u>	<u>100.0 %</u>
Credit quality distribution (3):										
AAA	\$ 470,072	10.0 %	\$ 429,523	13.2 %	\$ 367,194	11.4 %	\$ 461,572	14.8 %	\$ 422,833	14.3 %
AA	819,071	17.4 %	788,465	24.3 %	837,863	26.1 %	704,982	22.6 %	737,666	24.9 %
A	1,842,796	39.2 %	1,193,288	36.7 %	1,134,860	35.3 %	1,138,261	36.4 %	1,064,964	36.0 %
BBB	1,054,202	22.4 %	348,405	10.7 %	420,279	13.1 %	377,861	12.1 %	360,226	12.2 %
BB	190,913	4.1 %	195,010	6.0 %	184,652	5.8 %	174,657	5.6 %	154,050	5.2 %
B	138,910	3.0 %	140,582	4.3 %	136,997	4.3 %	150,354	4.8 %	126,385	4.3 %
Lower than B	28,866	0.6 %	28,228	0.9 %	20,416	0.6 %	17,657	0.6 %	11,844	0.4 %
Not rated	151,249	3.2 %	126,920	3.9 %	108,342	3.4 %	100,179	3.2 %	82,726	2.8 %
Total fixed maturities, at fair value	<u>\$ 4,696,079</u>	<u>100.0 %</u>	<u>\$ 3,250,421</u>	<u>100.0 %</u>	<u>\$ 3,210,603</u>	<u>100.0 %</u>	<u>\$ 3,125,523</u>	<u>100.0 %</u>	<u>\$ 2,960,694</u>	<u>100.0 %</u>

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) Includes sovereign securities, supranational securities and other.
- (3) 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.

The following table summarizes the Company's top ten exposures to fixed income corporate issuers by fair value at December 31, 2016, excluding covered bonds (1):

(U.S. Dollars in thousands)	Fair Value	% of Asset Class	% of Investable Assets	Credit Quality (2)
Issuer:				
Microsoft Corporation	\$ 89,820	1.9%	0.5%	AAA/Aaa
Apple Inc.	72,861	1.6%	0.4%	AAA/Aaa
Bank of New York Mellon Corp.	67,360	1.4%	0.4%	AA+/Aa1
Oracle Corporation	66,058	1.4%	0.4%	A/A1
JPMorgan Chase & Co	64,470	1.4%	0.3%	AA-/A1
Royal Dutch Shell PLC	58,019	1.2%	0.3%	A-/A3
Daimler AG	53,042	1.1%	0.3%	A/Aa2
Bank of America Corporation	51,193	1.1%	0.3%	A/A3
MetLife, Inc.	49,576	1.1%	0.3%	BBB+/Baa1
Massmutual Global Funding II Corp	47,767	1.0%	0.3%	AA-/Aa3
Total	<u>\$ 620,166</u>	<u>13.2%</u>	<u>3.3%</u>	

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) Average credit ratings assigned by S&P and Moody's, respectively.

Arch Capital Group Ltd. and Subsidiaries
Investment Information — Structured Securities

The following table provides information on the Company's mortgage-backed securities (MBS) and commercial mortgage-backed securities (CMBS) at December 31, 2016, excluding amounts guaranteed by U.S. government agencies (1):

(U.S. Dollars in thousands)

	Issuance Year	Amortized Cost	Average Credit Quality	Estimated Fair Value			Additional Statistics:	Non-Agency MBS	Non-Agency CMBS (2)
				Total	% of Amortized Cost	% of Investable Assets			
Non-agency MBS:	2004-2008	\$ 43,603	C+	\$ 47,426	108.8%	0.3%	Wtd. average loan age (months)	71	29
	2011	276	AA+	273	98.9%	—%	Wtd. average life (months) (3)	90	80
	2012	142	AAA	145	102.1%	—%	Wtd. average loan-to-value % (4)	60.6 %	56.3 %
	2013	85	AAA	75	88.2%	—%	Total delinquencies (5)	6.9 %	0.3 %
	2014	3,367	B-	3,368	100.0%	—%	Current credit support % (6)	14.6 %	33.5 %
	2015	1,959	BBB-	1,944	99.2%	—%			
	2016	59,656	AA+	58,258	97.7%	0.3%			
Total non-agency MBS		<u>\$ 109,088</u>	BB+	<u>\$ 111,489</u>	102.2%	<u>0.6%</u>			
Non-agency CMBS:	2002-2008	\$ 33,973	AA	\$ 33,295	98.0%	0.2%			
	2009	380	BBB-	379	99.7%	—%			
	2010	374	B+	367	98.1%	—%			
	2012	25,795	AAA	25,831	100.1%	0.1%			
	2013	84,090	AAA	85,709	101.9%	0.5%			
	2014	159,369	AA+	160,202	100.5%	0.9%			
	2015	122,142	AAA	120,377	98.6%	0.6%			
	2016	100,666	AA+	96,991	96.3%	0.5%			
Total non-agency CMBS		<u>\$ 526,789</u>	AA+	<u>\$ 523,151</u>	99.3%	<u>2.8%</u>			

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) Loans defeased with government/agency obligations represented were not material to the collateral underlying the Company's CMBS holdings.
- (3) The weighted average life for MBS was based on the interest rates in effect at December 31, 2016. The weighted average life for CMBS reflected the average life of the collateral underlying the Company's CMBS holdings.
- (4) The range of loan-to-values on MBS was 16% to 93%, while the range of loan-to-values on CMBS was 0% to 412% at December 31, 2016.
- (5) Total delinquencies included 60 days and over.
- (6) Current credit support % represents the % for a collateralized mortgage obligation (CMO) or CMBS class/tranche from other subordinate classes in the same CMO or CMBS deal.

The following table provides information on the Company's asset-backed securities (ABS) at December 31, 2016 (1):

(U.S. Dollars in thousands)

Sector:	Amortized Cost	Average Credit Quality	Weighted Average Credit Support	Estimated Fair Value		
				Total	% of Amortized Cost	% of Investable Assets
Credit cards	\$ 613,355	AAA	17%	\$ 611,492	99.7%	3.3%
Autos	262,514	AAA	30%	262,181	99.9%	1.4%
Loans	83,467	BBB	22%	83,464	100.0%	0.4%
Equipment	103,985	AA	5%	104,520	100.5%	0.6%
Other (2)	60,295	BB	16%	62,330	103.4%	0.3%
Total ABS (3)	<u>\$ 1,123,616</u>	AA+		<u>\$ 1,123,987</u>	100.0%	<u>6.0%</u>

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) Including rate reduction bonds, commodities, home equity, U.K. securitized and other.
- (3) The effective duration of the total ABS was 1.5 years at December 31, 2016. The Company's investment portfolio included sub-prime securities with a par value of \$45.5 million and estimated fair value of \$35.9 million and an average credit quality of "CCC/Caa3" from S&P/Moody's at December 31, 2016. Such amounts were primarily in the home equity sector of ABS with the balance in other ABS, MBS and CMBS sectors.

Arch Capital Group Ltd. and Subsidiaries
Investment Information — Bank Loan Investments

The Company's investments in bank loans are included in the following categories at December 31, 2016 (1):

(U.S. Dollars in thousands)

	Fair Value	% of Asset Class	% of Investable Assets
Composition:			
Investment funds accounted for using the equity method	\$ 3,047	0.8%	—%
Term loan investments (2)	374,806	99.2%	2.0%
Total	<u>\$ 377,853</u>	<u>100.0%</u>	<u>2.0%</u>
Currency:			
U.S.-denominated	\$ 255,959	67.7%	1.4%
Euro-denominated	121,894	32.3%	0.7%
Total	<u>\$ 377,853</u>	<u>100.0%</u>	<u>2.0%</u>
Sector:			
Consumer non-cyclical	\$ 103,809	27.5%	0.6%
Consumer cyclical	78,197	20.7%	0.4%
Industrials	65,672	17.4%	0.4%
Basic materials	43,153	11.4%	0.2%
Media	29,087	7.7%	0.2%
Utilities	22,099	5.8%	0.1%
All other	35,836	9.5%	0.2%
Total	<u>\$ 377,853</u>	<u>100.0%</u>	<u>2.0%</u>
Weighted average rating factor (Moody's)		B2	

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
(2) Included in "investments accounted for using the fair value option" on the Company's balance sheet.

Arch Capital Group Ltd. and Subsidiaries
Investment Information — Eurozone Investments

The fair value of the Company's Eurozone investments are as follows at December 31, 2016 (1):

(U.S. Dollars in thousands)

Country (2):	Sovereign (3)	Financial Corporates	Other Corporates	Bank Loans (4)	Equities and Other	Total
Netherlands	\$ 90,951	\$ 13,050	\$ 124,364	\$ 1,723	\$ 1,989	\$ 232,077
Germany	74,772	—	41,520	199	7,259	123,750
France	302	346	55,626	1,275	9,861	67,410
Luxembourg	—	—	23,386	2,522	—	25,908
Belgium	13,878	7,405	233	1	—	21,517
Ireland	—	—	1,818	2,882	3,023	7,723
Supranational (4)	7,454	—	—	—	—	7,454
Italy	—	—	—	2	4,401	4,403
Spain	—	—	—	2	3,718	3,720
Finland	—	—	—	—	3,576	3,576
Greece	81	—	711	—	—	792
Total	\$ 187,438	\$ 20,801	\$ 247,658	\$ 8,606	\$ 33,827	\$ 498,330

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) The country allocations set forth in the table are based on various assumptions made by the Company 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, the Company does not believe that it has any other Eurozone investments at December 31, 2016.
- (3) Sovereign includes securities issued and/or guaranteed by Eurozone governments.
- (4) Included in "term loan investments" in the Bank Loan Investments table.
- (5) Includes World Bank, European Investment Bank, International Finance Corp. and European Bank for Reconstruction and Development.

Arch Capital Group Ltd. and Subsidiaries

Comments on Regulation G

Throughout this financial supplement, the Company presents its operations in the way it believes will be the most meaningful and useful to investors, analysts, rating agencies and others who use the Company's financial information in evaluating the performance of the Company. This presentation includes the use of after-tax operating income available to Arch common shareholders, which is defined as net income available to Arch common shareholders, excluding net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and UGC transaction costs and other, 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 on the following page.

The Company believes that net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and UGC transaction costs and other in any particular period are not indicative of the performance of, or trends in, the Company's business performance. 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 the Company's 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 the Company's 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 the Company's investments represent other-than-temporary declines in expected recovery values on securities without actual realization. The use of the equity method on certain of the Company's 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 the Company's proportionate share of the net income or loss of the funds (which include changes in the fair value of the underlying securities in the funds). This method of accounting is different from the way the Company accounts for its other fixed maturity securities and the timing of the recognition of equity in net income or loss of investment funds accounted for using the equity method may differ from gains or losses in the future upon sale or maturity of such investments. UGC transaction costs and other include non-recurring advisory, financing, legal and other UGC transaction costs related to the UGC acquisition and non-recurring expenses related to a change in the Company's approach on the deferral of certain internal underwriting costs which are no longer being deferred. The Company believes that UGC transaction costs and other, due to their non-recurring nature, are not indicative of the performance of, or trends in, the Company's business performance. Due to these reasons, the Company excludes net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and UGC transaction costs and other from the calculation of after-tax operating income or loss available to Arch common shareholders.

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

In addition, the Company's presentation includes the use of information prepared on a 'core' basis, which excludes amounts related to the 'other' segment (i.e., results of Watford Re). Information provided on a 'core' basis are non-GAAP financial measures as defined in Regulation G. Pursuant to generally accepted accounting principles, Watford Re is considered a variable interest entity and the Company concluded that it is the primary beneficiary of Watford Re. As such, the Company consolidates the results of Watford Re in its consolidated financial statements, although it only owns 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, the Company does not guarantee or provide credit support for Watford Re. Because 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. 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. The Company believes that presenting information on a 'core' basis enables investors and other users of the Company's financial information to analyze the Company's performance in a manner similar to how the Company's management analyzes performance. See 'Segment Information' for a further discussion of segment results and a reconciliation of core and consolidated results.

The Company's segment information includes the presentation of consolidated underwriting income or loss and a subtotal of underwriting income or loss on a 'core' basis. Such measures represent the pre-tax profitability of the Company's 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 the Company's individual underwriting operations. Underwriting income or loss does not incorporate items included in the Company's corporate (non-underwriting) segment. While these measures are presented in the Segment Information footnote to the Company's 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 'core' basis, in accordance with Regulation G, is shown on pages 10 to 13.

The Company's segment information includes the use of a combined ratio excluding catastrophic activity and prior year development for the insurance segment and reinsurance segment and a combined ratio excluding prior year development for the mortgage segment. These ratios are non-GAAP financial measures as defined in Regulation G. The reconciliation of such measures to the combined ratio (the most directly comparable GAAP financial measure) in accordance with Regulation G are shown on the individual segment pages. The Company's management utilizes the adjusted combined ratio excluding current accident year catastrophic events and favorable or adverse development in prior year loss reserves in its analysis of the core underwriting performance of each of its 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 its business, and compares the return generated by the Company's investment portfolio against benchmark returns which it measures portfolio returns against during the periods presented.

Arch Capital Group Ltd. and Subsidiaries
Operating Income Reconciliation and Annualized Operating Return on Average Common Equity

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

(U.S. Dollars in thousands, except share data)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Net income available to Arch common shareholders	\$ 62,396	\$ 247,388	\$ 205,570	\$ 149,314	\$ 53,094	\$ 664,668	\$ 515,800
Net realized (gains) losses	98,477	(99,159)	(43,935)	(32,464)	90,856	(77,081)	108,690
Net impairment losses recognized in earnings	13,593	3,867	5,343	7,639	7,336	30,442	20,116
Equity in net (income) loss of investment funds accounted for using the equity method	(16,421)	(16,662)	(8,737)	(6,655)	(5,517)	(48,475)	(25,456)
Net foreign exchange (gains) losses	(35,547)	4,054	(22,703)	22,209	(2,533)	(31,987)	(63,011)
UGC transaction costs and other	34,587	7,142	—	—	—	41,729	—
Income tax expense (1)	(15,557)	2,970	5,036	5,699	363	(1,852)	9,060
After-tax operating income available to Arch common shareholders	\$ 141,528	\$ 149,600	\$ 140,574	\$ 145,742	\$ 143,599	\$ 577,444	\$ 565,199
<u>Diluted per common share results:</u>							
Net income available to Arch common shareholders	\$ 0.50	\$ 1.98	\$ 1.65	\$ 1.20	\$ 0.42	\$ 5.33	\$ 4.09
Net realized (gains) losses	0.78	(0.79)	(0.35)	(0.26)	0.73	(0.62)	0.86
Net impairment losses recognized in earnings	0.11	0.03	0.04	0.06	0.06	0.24	0.16
Equity in net (income) loss of investment funds accounted for using the equity method	(0.13)	(0.13)	(0.07)	(0.05)	(0.04)	(0.38)	(0.20)
Net foreign exchange (gains) losses	(0.28)	0.03	(0.18)	0.18	(0.02)	(0.26)	(0.50)
UGC transaction costs and other	0.27	0.06	—	—	—	0.33	—
Income tax expense (1)	(0.12)	0.02	0.04	0.04	—	(0.01)	0.07
After-tax operating income available to Arch common shareholders	\$ 1.13	\$ 1.20	\$ 1.13	\$ 1.17	\$ 1.15	\$ 4.63	\$ 4.48
Weighted average common shares and common share equivalents outstanding — diluted	125,427,259	124,931,653	124,365,596	124,496,496	125,311,942	124,717,493	126,038,743
Beginning common shareholders' equity	\$ 6,538,983	\$ 6,340,583	\$ 6,050,248	\$ 5,841,542	\$ 5,799,476	\$ 5,841,542	\$ 5,766,714
Ending common shareholders' equity	7,481,163	6,538,983	6,340,583	6,050,248	5,841,542	7,481,163	5,841,542
Average common shareholders' equity (2)	\$ 6,471,392	\$ 6,439,783	\$ 6,195,416	\$ 5,945,895	\$ 5,820,509	\$ 6,113,718	\$ 5,804,128
Annualized return on average common equity (2)	3.9%	15.4%	13.3%	10.0%	3.6%	10.9%	8.9%
Annualized operating return on average common equity (2)	8.7%	9.3%	9.1%	9.8%	9.9%	9.4%	9.7%

- (1) Income tax expense on net realized gains or losses, net impairment losses recognized in earnings, equity in net income (loss) of investment funds accounted for using the equity method, net foreign exchange gains or losses and UGC transaction costs and other reflects the relative mix reported by jurisdiction and the varying tax rates in each jurisdiction.
- (2) Average common shareholders' equity and the related returns on average common equity reflect the weighted impact of the \$1.10 billion of convertible non-voting common equivalent preferred shares, which were issued on December 31, 2016 as part of the UGC acquisition.

Arch Capital Group Ltd. and Subsidiaries
Operating Income and Effective Tax Rate Calculations

The following table provides a reconciliation of income before income taxes to after-tax operating income available to Arch common shareholders and an analysis of the effective tax rate on pre-tax operating income available to Arch common shareholders:

(U.S. Dollars in thousands)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Arch Operating Income Components (1):							
Income before income taxes	\$ 59,611	\$ 260,385	\$ 221,010	\$ 169,098	\$ 74,384	\$ 710,104	\$ 582,064
Net realized (gains) losses	99,149	(95,946)	(40,927)	(31,862)	84,302	(69,586)	99,133
Net impairment losses recognized in earnings	13,593	3,867	5,343	7,639	7,336	30,442	20,116
Equity in net (income) loss of investment funds accounted for using the equity method	(16,421)	(16,662)	(8,737)	(6,655)	(5,517)	(48,475)	(25,455)
Net foreign exchange (gains) losses	(35,221)	4,232	(22,461)	22,041	(2,286)	(31,409)	(62,624)
UGC transaction costs and other	34,587	7,142	—	—	—	41,729	—
Pre-tax operating income	155,298	163,018	154,228	160,261	158,219	632,805	613,234
Arch share of 'other' segment operating income (2)	1,109	2,324	927	1,576	1,953	5,936	5,458
Pre-tax operating income available to Arch (b)	156,407	165,342	155,155	161,837	160,172	638,741	618,692
Income tax expense (a)	(3,262)	(10,258)	(9,096)	(10,611)	(11,088)	(33,227)	(31,555)
After-tax operating income available to Arch	153,145	155,084	146,059	151,226	149,084	605,514	587,137
Preferred dividends	(11,617)	(5,484)	(5,485)	(5,484)	(5,485)	(28,070)	(21,938)
After-tax operating income available to Arch common shareholders	\$ 141,528	\$ 149,600	\$ 140,574	\$ 145,742	\$ 143,599	\$ 577,444	\$ 565,199
Effective tax rate on pre-tax operating income available to Arch -(a)/(b)	2.1%	6.2%	5.9%	6.6%	6.9%	5.2%	5.1%

(1) Line items are presented on a 'core' basis, excluding amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.

(2) Balances in the 'other' segment and a calculation of Arch's share of the 'other' segment operating income is as follows:

(U.S. Dollars in thousands)

	Three Months Ended				Year Ended		
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Balances in 'other' segment:							
Underwriting income (loss)	\$ (3,266)	\$ 1,379	\$ (1,724)	\$ (944)	\$ (3,557)	\$ (4,555)	\$ (3,709)
Net investment income	20,946	27,336	17,941	23,326	28,930	89,549	76,410
Interest expense	(3,058)	(3,019)	(3,231)	(3,480)	(3,070)	(12,788)	(4,356)
Preferred dividends	(4,588)	(4,588)	(4,586)	(4,587)	(4,589)	(18,349)	(18,828)
Pre-tax operating income (loss) available to common shareholders	10,034	21,108	8,400	14,315	17,714	53,857	49,517
Arch ownership	11%	11%	11%	11%	11%	11%	11%
Arch share of 'Other' segment operating income (loss) (3)	\$ 1,109	\$ 2,324	\$ 927	\$ 1,576	\$ 1,953	\$ 5,936	\$ 5,458

(3) Excludes amounts attributable to net realized gains or losses and net foreign exchange gains or losses in the 'other' segment (see 'Segment Information').

Arch Capital Group Ltd. and Subsidiaries
Capital Structure and Share Repurchase Activity

The following table provides an analysis of the Company's capital structure (1):

(U.S. Dollars in thousands, except share data)

	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015
Debt:					
ACGL Senior notes, due May 1, 2034 (\$300,000 principal, 7.35%)	\$ 296,957	\$ 296,936	\$ 296,915	\$ 296,895	\$ 296,874
Arch-U.S. Senior notes, due Nov. 1, 2043 (\$500,000 principal, 5.144%) (2)	494,525	494,501	494,477	494,454	494,432
Arch Finance Senior notes, due December 15, 2026 (\$500,000 principal, 4.011%) (3)	495,689	—	—	—	—
Arch Finance Senior notes, due December 15, 2046 (\$450,000 principal, 5.031%) (3)	445,087	—	—	—	—
Revolving credit agreement borrowings, due June 30, 2019 (variable)	500,000	100,000	100,000	100,000	100,000
Total debt	\$ 2,232,258	\$ 891,437	\$ 891,392	\$ 891,349	\$ 891,306
Shareholders' equity available to Arch:					
Series C non-cumulative preferred shares (6.75%)	\$ 322,555	\$ 325,000	\$ 325,000	\$ 325,000	\$ 325,000
Series E non-cumulative preferred shares (5.25%)	450,000	450,000	—	—	—
Common shareholders' equity (4) (a)	7,481,163	6,538,983	6,340,583	6,050,248	5,841,542
Total shareholders' equity available to Arch	\$ 8,253,718	\$ 7,313,983	\$ 6,665,583	\$ 6,375,248	\$ 6,166,542
Total capital available to Arch	\$ 10,485,976	\$ 8,205,420	\$ 7,556,975	\$ 7,266,597	\$ 7,057,848
Common shares and common share equivalents outstanding, net of treasury shares (4) (b)	135,550,337	122,675,197	122,572,260	122,093,596	122,627,783
Book value per share (5) (a)/(b)	\$ 55.19	\$ 53.30	\$ 51.73	\$ 49.55	\$ 47.64
Leverage ratios:					
Senior notes/total capital available to Arch	16.5%	9.6%	10.5%	10.9%	11.2%
Revolving credit agreement borrowings/total capital available to Arch	4.8%	1.2%	1.3%	1.4%	1.4%
Debt/total capital available to Arch	21.3%	10.9%	11.8%	12.3%	12.6%
Preferred/total capital available to Arch	7.4%	9.4%	4.3%	4.5%	4.6%
Debt and preferred/total capital available to Arch	28.7%	20.3%	16.1%	16.7%	17.2%

- (1) Presented on a 'core' basis which excludes amounts related to the 'other' segment (*i.e.*, results of Watford Re). See 'Comments on Regulation G' for a further discussion of the presentation of 'core' results.
- (2) Issued by Arch Capital Group (U.S.) Inc. ("Arch-U.S."), a wholly owned subsidiary of Arch Capital Group Ltd. ("ACGL"), and fully and unconditionally guaranteed by ACGL.
- (3) Issued by Arch Capital Finance LLC ("Arch Finance"), a wholly owned subsidiary of Arch U.S. MI Holdings Inc., and fully and unconditionally guaranteed by ACGL.
- (4) Includes the issuance of \$1.10 billion of convertible non-voting common equivalent preferred shares on December 31, 2016 in connection with the UGC acquisition.
- (5) Excludes the effects of stock options and restricted stock units outstanding. Book value per share for prior periods reflects the per share impact of a \$38.3 million cumulative effect of an accounting change recorded in the 2016 fourth quarter as of January 1, 2014.

The following table provides an analysis of the Company's share repurchase program:

(U.S. Dollars in thousands except share data)

	Three Months Ended				Cumulative	
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	December 31, 2016
Effect of share repurchases:						
Aggregate cost of shares repurchased	\$ —	\$ —	\$ —	\$ 75,256	\$ —	\$ 3,682,661
Shares repurchased	—	—	—	1,140,137	—	125,223,844
Average price per share repurchased	\$ —	\$ —	\$ —	\$ 66.01	\$ —	\$ 29.41
Average book value per common share (1)	\$ 54.25	\$ 52.52	\$ 50.64	\$ 48.60	\$ 47.51	
Average repurchase price-to-book multiple	—x	—x	—x	1.36x	—x	
Remaining share repurchase authorization (2)	\$ 446,501					

- (1) Equals average of beginning and ending book value per common share for each period presented.
- (2) Repurchases under the share repurchase authorization may be effected from time to time in open market or privately negotiated transactions through December 2019.