

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

**FORM 10-Q**

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

**For the quarterly period ended June 30, 2018**

**Or**

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

**Commission file number: 001-16209**



**ARCH CAPITAL GROUP LTD.**

(Exact name of registrant as specified in its charter)

**Bermuda**

(State or other jurisdiction of incorporation or organization)

**Not applicable**

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

**Waterloo House, Ground Floor**

**100 Pitts Bay Road, Pembroke HM 08, Bermuda**

(Address of principal executive offices)

**(441) 278-9250**

(Registrant's telephone number, including area code)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. Large accelerated Filer ☒ Accelerated Filer ☐ Non-accelerated Filer ☐ Smaller reporting company ☐ Emerging growth company ☐

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

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

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

**ARCH CAPITAL GROUP LTD.****INDEX TO FORM 10-Q**

|          |                                                                                                       | <b>Page No.</b>    |
|----------|-------------------------------------------------------------------------------------------------------|--------------------|
|          | <b>PART I</b>                                                                                         |                    |
|          | <a href="#">Financial Information</a>                                                                 | <a href="#">2</a>  |
| Item 1.  | <a href="#">Consolidated Financial Statements</a>                                                     | <a href="#">4</a>  |
| Item 2.  | <a href="#">Management's Discussion and Analysis of Financial Condition and Results of Operations</a> | <a href="#">48</a> |
| Item 3.  | <a href="#">Quantitative and Qualitative Disclosures About Market Risk</a>                            | <a href="#">73</a> |
| Item 4.  | <a href="#">Controls and Procedures</a>                                                               | <a href="#">73</a> |
|          | <b>PART II</b>                                                                                        |                    |
|          | <a href="#">Other Information</a>                                                                     | <a href="#">74</a> |
| Item 1.  | <a href="#">Legal Proceedings</a>                                                                     | <a href="#">74</a> |
| Item 1A. | <a href="#">Risk Factors</a>                                                                          | <a href="#">74</a> |
| Item 2.  | <a href="#">Unregistered Sales of Equity Securities and Use of Proceeds</a>                           | <a href="#">74</a> |
| Item 5.  | <a href="#">Other Information</a>                                                                     | <a href="#">75</a> |
| Item 6.  | <a href="#">Exhibits</a>                                                                              | <a href="#">76</a> |
|          | <a href="#">Signatures</a>                                                                            | <a href="#">77</a> |

## PART I. FINANCIAL INFORMATION

### Cautionary Note Regarding Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 (“PSLRA”) provides a “safe harbor” for forward-looking statements. This report or any other written or oral statements made by or on behalf of us may include forward-looking statements, which reflect our current views with respect to future events and financial performance. All statements other than statements of historical fact included in or incorporated by reference in this report are forward-looking statements. Forward-looking statements, for purposes of the PSLRA or otherwise, can generally be identified by the use of forward-looking terminology such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe” or “continue” and similar statements of a future or forward-looking nature or their negative or variations or similar terminology.

Forward-looking statements involve our current assessment of risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. Important factors that could cause actual events or results to differ materially from those indicated in such statements are discussed below and elsewhere in this report and in our periodic reports filed with the Securities and Exchange Commission (the “SEC”), and include:

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

## [Table of Contents](#)

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

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

---

**ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS**

---

|                                                                                                                                                  | <b>Page No.</b>    |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <a href="#">Report of Independent Registered Public Accounting Firm</a>                                                                          | <a href="#">5</a>  |
| <a href="#">Consolidated Balance Sheets</a><br>June 30, 2018 (unaudited) and December 31, 2017                                                   | <a href="#">6</a>  |
| <a href="#">Consolidated Statements of Income</a><br>For the three and six month periods ended June 30, 2018 and 2017 (unaudited)                | <a href="#">7</a>  |
| <a href="#">Consolidated Statements of Comprehensive Income</a><br>For the three and six month periods ended June 30, 2018 and 2017 (unaudited)  | <a href="#">8</a>  |
| <a href="#">Consolidated Statements of Changes in Shareholders' Equity</a><br>For the six month periods ended June 30, 2018 and 2017 (unaudited) | <a href="#">9</a>  |
| <a href="#">Consolidated Statements of Cash Flows</a><br>For the six month periods ended June 30, 2018 and 2017 (unaudited)                      | <a href="#">10</a> |
| Notes to Consolidated Financial Statements (unaudited)                                                                                           |                    |
| <a href="#">Note 1 - General</a>                                                                                                                 | <a href="#">11</a> |
| <a href="#">Note 2 - Recent Accounting Pronouncements</a>                                                                                        | <a href="#">11</a> |
| <a href="#">Note 3 - Share Transactions</a>                                                                                                      | <a href="#">12</a> |
| <a href="#">Note 4 - Earnings Per Common Share</a>                                                                                               | <a href="#">13</a> |
| <a href="#">Note 5 - Segment Information</a>                                                                                                     | <a href="#">14</a> |
| <a href="#">Note 6 - Reserves for Losses and Loss Adjustment Expenses</a>                                                                        | <a href="#">19</a> |
| <a href="#">Note 7 - Investment Information</a>                                                                                                  | <a href="#">22</a> |
| <a href="#">Note 8 - Fair Value</a>                                                                                                              | <a href="#">28</a> |
| <a href="#">Note 9 - Derivative Instruments</a>                                                                                                  | <a href="#">34</a> |
| <a href="#">Note 10 - Commitments and Contingencies</a>                                                                                          | <a href="#">35</a> |
| <a href="#">Note 11 - Variable Interest Entities and Noncontrolling Interests</a>                                                                | <a href="#">35</a> |
| <a href="#">Note 12 - Other Comprehensive Income (Loss)</a>                                                                                      | <a href="#">38</a> |
| <a href="#">Note 13 - Guarantor Financial Information</a>                                                                                        | <a href="#">39</a> |
| <a href="#">Note 14 - Income Taxes</a>                                                                                                           | <a href="#">47</a> |
| <a href="#">Note 15 - Legal Proceedings</a>                                                                                                      | <a href="#">47</a> |

**Report of Independent Registered Public Accounting Firm**

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

***Results of Review of Financial Statements***

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

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

***Basis for Review Results***

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

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP  
New York, NY  
August 8, 2018

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

|                                                                                                        | (Unaudited)<br>June 30,<br>2018 | December 31,<br>2017 |
|--------------------------------------------------------------------------------------------------------|---------------------------------|----------------------|
| <b>Assets</b>                                                                                          |                                 |                      |
| Investments:                                                                                           |                                 |                      |
| Fixed maturities available for sale, at fair value (amortized cost: \$14,293,121 and \$13,869,460)     | \$ 14,128,989                   | \$ 13,876,003        |
| Short-term investments available for sale, at fair value (amortized cost: \$1,096,532 and \$1,468,955) | 1,096,798                       | 1,469,042            |
| Collateral received under securities lending, at fair value (amortized cost: \$236,948 and \$476,605)  | 236,956                         | 476,615              |
| Equity securities, at fair value                                                                       | 534,482                         | 495,804              |
| Other investments available for sale, at fair value (cost: \$0 and \$198,163)                          | —                               | 264,989              |
| Investments accounted for using the fair value option                                                  | 4,111,611                       | 4,216,237            |
| Investments accounted for using the equity method                                                      | 1,428,582                       | 1,041,322            |
| Total investments                                                                                      | 21,537,418                      | 21,840,012           |
| Cash                                                                                                   | 526,628                         | 606,199              |
| Accrued investment income                                                                              | 114,307                         | 113,133              |
| Securities pledged under securities lending, at fair value (amortized cost: \$229,857 and \$463,181)   | 230,064                         | 464,917              |
| Premiums receivable                                                                                    | 1,351,310                       | 1,135,249            |
| Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses                         | 2,727,303                       | 2,540,143            |
| Contractholder receivables                                                                             | 2,044,322                       | 1,978,414            |
| Ceded unearned premiums                                                                                | 1,014,663                       | 926,611              |
| Deferred acquisition costs net                                                                         | 569,817                         | 535,824              |
| Receivable for securities sold                                                                         | 143,809                         | 205,536              |
| Goodwill and intangible assets                                                                         | 593,008                         | 652,611              |
| Other assets                                                                                           | 1,000,471                       | 1,053,009            |
| <b>Total assets</b>                                                                                    | <b>\$ 31,853,120</b>            | <b>\$ 32,051,658</b> |
| <b>Liabilities</b>                                                                                     |                                 |                      |
| Reserve for losses and loss adjustment expenses                                                        | \$ 11,424,337                   | \$ 11,383,792        |
| Unearned premiums                                                                                      | 3,833,540                       | 3,622,314            |
| Reinsurance balances payable                                                                           | 411,082                         | 323,496              |
| Contractholder payables                                                                                | 2,044,322                       | 1,978,414            |
| Collateral held for insured obligations                                                                | 257,396                         | 240,183              |
| Senior notes                                                                                           | 1,733,211                       | 1,732,884            |
| Revolving credit agreement borrowings                                                                  | 572,289                         | 816,132              |
| Securities lending payable                                                                             | 236,948                         | 476,605              |
| Payable for securities purchased                                                                       | 356,583                         | 449,186              |
| Other liabilities                                                                                      | 752,399                         | 782,717              |
| <b>Total liabilities</b>                                                                               | <b>21,622,107</b>               | <b>21,805,723</b>    |
| <b>Commitments and Contingencies</b>                                                                   |                                 |                      |
| <b>Redeemable noncontrolling interests</b>                                                             | <b>206,105</b>                  | <b>205,922</b>       |
| <b>Shareholders' Equity</b>                                                                            |                                 |                      |
| Non-cumulative preferred shares                                                                        | 780,000                         | 872,555              |
| Convertible non-voting common equivalent preferred shares                                              | —                               | 489,627              |
| Common shares (\$0.0011 par, shares issued: 569,458,341 and 549,872,226)                               | 633                             | 611                  |
| Additional paid-in capital                                                                             | 1,760,606                       | 1,230,617            |
| Retained earnings                                                                                      | 9,083,202                       | 8,562,889            |
| Accumulated other comprehensive income (loss), net of deferred income tax                              | (194,157)                       | 118,044              |
| Common shares held in treasury, at cost (shares: 164,021,704 and 156,938,409)                          | (2,266,529)                     | (2,077,741)          |
| <b>Total shareholders' equity available to Arch</b>                                                    | <b>9,163,755</b>                | <b>9,196,602</b>     |

|                                                                             |                      |                      |
|-----------------------------------------------------------------------------|----------------------|----------------------|
| Non-redeemable noncontrolling interests                                     | 861,153              | 843,411              |
| <b>Total shareholders' equity</b>                                           | <b>10,024,908</b>    | <b>10,040,013</b>    |
| <b>Total liabilities, noncontrolling interests and shareholders' equity</b> | <b>\$ 31,853,120</b> | <b>\$ 32,051,658</b> |

See Notes to Consolidated Financial Statements

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

|                                                                                       | (Unaudited)        |                   | (Unaudited)       |                   |
|---------------------------------------------------------------------------------------|--------------------|-------------------|-------------------|-------------------|
|                                                                                       | Three Months Ended |                   | Six Months Ended  |                   |
|                                                                                       | June 30,           |                   | June 30,          |                   |
|                                                                                       | 2018               | 2017              | 2018              | 2017              |
| <b>Revenues</b>                                                                       |                    |                   |                   |                   |
| Net premiums written                                                                  | \$ 1,298,896       | \$ 1,248,695      | \$ 2,711,440      | \$ 2,524,955      |
| Change in unearned premiums                                                           | 37,867             | (7,821)           | (139,778)         | (167,064)         |
| Net premiums earned                                                                   | 1,336,763          | 1,240,874         | 2,571,662         | 2,357,891         |
| Net investment income                                                                 | 135,668            | 111,124           | 262,392           | 228,998           |
| Net realized gains (losses)                                                           | (76,611)           | 21,735            | (187,609)         | 55,888            |
| Other-than-temporary impairment losses                                                | (470)              | (1,730)           | (632)             | (3,537)           |
| Less investment impairments recognized in other comprehensive income, before taxes    | —                  | —                 | —                 | —                 |
| Net impairment losses recognized in earnings                                          | (470)              | (1,730)           | (632)             | (3,537)           |
| Other underwriting income                                                             | 3,874              | 4,822             | 9,223             | 9,455             |
| Equity in net income (loss) of investment funds accounted for using the equity method | 8,472              | 32,706            | 36,541            | 80,794            |
| Other income (loss)                                                                   | 3,113              | (1,994)           | 3,187             | (2,776)           |
| <b>Total revenues</b>                                                                 | <b>1,410,809</b>   | <b>1,407,537</b>  | <b>2,694,764</b>  | <b>2,726,713</b>  |
| <b>Expenses</b>                                                                       |                    |                   |                   |                   |
| Losses and loss adjustment expenses                                                   | 726,153            | 689,860           | 1,363,013         | 1,242,430         |
| Acquisition expenses                                                                  | 202,838            | 190,436           | 394,214           | 372,725           |
| Other operating expenses                                                              | 176,181            | 169,981           | 351,196           | 344,700           |
| Corporate expenses                                                                    | 22,512             | 24,876            | 37,824            | 52,668            |
| Amortization of intangible assets                                                     | 26,472             | 30,824            | 53,208            | 62,118            |
| Interest expense                                                                      | 30,344             | 28,749            | 60,980            | 57,425            |
| Net foreign exchange (gains) losses                                                   | (53,706)           | 39,543            | (33,985)          | 58,947            |
| <b>Total expenses</b>                                                                 | <b>1,130,794</b>   | <b>1,174,269</b>  | <b>2,226,450</b>  | <b>2,191,013</b>  |
| <b>Income before income taxes</b>                                                     | <b>280,015</b>     | <b>233,268</b>    | <b>468,314</b>    | <b>535,700</b>    |
| Income tax expense                                                                    | (23,668)           | (34,169)          | (45,583)          | (62,566)          |
| <b>Net income</b>                                                                     | <b>\$ 256,347</b>  | <b>\$ 199,099</b> | <b>\$ 422,731</b> | <b>\$ 473,134</b> |
| Net (income) loss attributable to noncontrolling interests                            | (12,701)           | (13,932)          | (28,662)          | (34,840)          |
| <b>Net income available to Arch</b>                                                   | <b>243,646</b>     | <b>185,167</b>    | <b>394,069</b>    | <b>438,294</b>    |
| Preferred dividends                                                                   | (10,403)           | (11,349)          | (20,840)          | (22,567)          |
| Loss on redemption of preferred shares                                                | —                  | —                 | (2,710)           | —                 |
| <b>Net income available to Arch common shareholders</b>                               | <b>\$ 233,243</b>  | <b>\$ 173,818</b> | <b>\$ 370,519</b> | <b>\$ 415,727</b> |
| <b>Net income per common share and common share equivalent</b>                        |                    |                   |                   |                   |
| Basic                                                                                 | \$ 0.58            | \$ 0.43           | \$ 0.91           | \$ 1.03           |
| Diluted                                                                               | \$ 0.56            | \$ 0.42           | \$ 0.89           | \$ 1.00           |
| <b>Weighted average common shares and common share equivalents outstanding</b>        |                    |                   |                   |                   |
| Basic                                                                                 | 404,800,421        | 403,459,992       | 406,162,508       | 402,786,129       |
| Diluted                                                                               | 413,111,205        | 417,733,938       | 415,460,756       | 417,421,896       |

See Notes to Consolidated Financial Statements

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

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

See Notes to Consolidated Financial Statements

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

|                                                                                                           | (Unaudited)      |             |
|-----------------------------------------------------------------------------------------------------------|------------------|-------------|
|                                                                                                           | Six Months Ended |             |
|                                                                                                           | June 30,         |             |
|                                                                                                           | 2018             | 2017        |
| <b>Non-cumulative preferred shares</b>                                                                    |                  |             |
| Balance at beginning of year                                                                              | \$ 872,555       | \$ 772,555  |
| Preferred shares redeemed                                                                                 | (92,555)         | —           |
| Balance at end of period                                                                                  | 780,000          | 772,555     |
| <b>Convertible non-voting common equivalent preferred shares</b>                                          |                  |             |
| Balance at beginning of year                                                                              | 489,627          | 1,101,304   |
| Preferred shares converted to common shares                                                               | (489,627)        | (611,677)   |
| Balance at end of period                                                                                  | —                | 489,627     |
| <b>Common shares</b>                                                                                      |                  |             |
| Balance at beginning of year                                                                              | 611              | 582         |
| Common shares issued, net                                                                                 | 22               | 27          |
| Balance at end of period                                                                                  | 633              | 609         |
| <b>Additional paid-in capital</b>                                                                         |                  |             |
| Balance at beginning of year                                                                              | 1,230,617        | 531,687     |
| Preferred shares converted to common shares                                                               | 489,608          | 611,653     |
| Reversal of issue costs on preferred shares redeemed                                                      | 2,710            | —           |
| All other                                                                                                 | 37,671           | 53,544      |
| Balance at end of period                                                                                  | 1,760,606        | 1,196,884   |
| <b>Retained earnings</b>                                                                                  |                  |             |
| Balance at beginning of year                                                                              | 8,562,889        | 7,996,701   |
| Cumulative effect of an accounting change (see Note 2)                                                    | 149,794          | (314)       |
| Balance at beginning of year, as adjusted                                                                 | 8,712,683        | 7,996,387   |
| Net income                                                                                                | 422,731          | 473,134     |
| Net (income) loss attributable to noncontrolling interests                                                | (28,662)         | (34,840)    |
| Preferred share dividends                                                                                 | (20,840)         | (22,567)    |
| Loss on redemption of preferred shares                                                                    | (2,710)          | —           |
| Balance at end of period                                                                                  | 9,083,202        | 8,412,114   |
| <b>Accumulated other comprehensive income (loss), net of deferred income tax</b>                          |                  |             |
| Balance at beginning of year                                                                              | 118,044          | (114,541)   |
| Unrealized appreciation (decline) in value of available-for-sale investments, net of deferred income tax: |                  |             |
| Balance at beginning of year                                                                              | 157,400          | (27,641)    |
| Cumulative effect of an accounting change (see Note 2)                                                    | (149,794)        | —           |
| Balance at beginning of year, as adjusted                                                                 | 7,606            | (27,641)    |
| Unrealized holding gains (losses) arising during period, net of reclassification adjustment               | (152,844)        | 171,493     |
| Unrealized holding gains (losses) arising during period attributable to noncontrolling interests          | 1,885            | —           |
| Balance at end of period                                                                                  | (143,353)        | 143,852     |
| Foreign currency translation adjustments, net of deferred income tax:                                     |                  |             |
| Balance at beginning of year                                                                              | (39,356)         | (86,900)    |
| Foreign currency translation adjustments                                                                  | (11,313)         | 21,421      |
| Foreign currency translation adjustments attributable to noncontrolling interests                         | (135)            | 68          |
| Balance at end of period                                                                                  | (50,804)         | (65,411)    |
| Balance at end of period                                                                                  | (194,157)        | 78,441      |
| <b>Common shares held in treasury, at cost</b>                                                            |                  |             |
| Balance at beginning of year                                                                              | (2,077,741)      | (2,034,570) |

|                                                     |                      |                     |
|-----------------------------------------------------|----------------------|---------------------|
| Shares repurchased for treasury                     | (188,788)            | (16,773)            |
| Balance at end of period                            | (2,266,529)          | (2,051,343)         |
| <b>Total shareholders' equity available to Arch</b> | 9,163,755            | 8,898,887           |
| Non-redeemable noncontrolling interests             | 861,153              | 877,456             |
| <b>Total shareholders' equity</b>                   | <u>\$ 10,024,908</u> | <u>\$ 9,776,343</u> |

See Notes to Consolidated Financial Statements

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

|                                                                                                                 | (Unaudited)      |              |
|-----------------------------------------------------------------------------------------------------------------|------------------|--------------|
|                                                                                                                 | Six Months Ended |              |
|                                                                                                                 | June 30,         |              |
|                                                                                                                 | 2018             | 2017         |
| <b>Operating Activities</b>                                                                                     |                  |              |
| Net income                                                                                                      | \$ 422,731       | \$ 473,134   |
| Adjustments to reconcile net income to net cash provided by operating activities:                               |                  |              |
| Net realized (gains) losses                                                                                     | 177,442          | (74,985)     |
| Net impairment losses recognized in earnings                                                                    | 632              | 3,537        |
| Equity in net income or loss of investment funds accounted for using the equity method and other income or loss | (13,543)         | (47,529)     |
| Amortization of intangible assets                                                                               | 53,208           | 62,118       |
| Share-based compensation                                                                                        | 35,419           | 42,739       |
| Changes in:                                                                                                     |                  |              |
| Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable  | (77,891)         | 180,342      |
| Unearned premiums, net of ceded unearned premiums                                                               | 139,778          | 167,064      |
| Premiums receivable                                                                                             | (236,950)        | (222,498)    |
| Deferred acquisition costs                                                                                      | (35,111)         | (53,553)     |
| Reinsurance balances payable                                                                                    | 88,961           | 50,112       |
| Other items, net                                                                                                | (57,790)         | (46,946)     |
| Net cash provided by operating activities                                                                       | 496,886          | 533,535      |
| <b>Investing Activities</b>                                                                                     |                  |              |
| Purchases of fixed maturity investments                                                                         | (16,867,570)     | (19,899,326) |
| Purchases of equity securities                                                                                  | (679,663)        | (400,155)    |
| Purchases of other investments                                                                                  | (1,017,147)      | (883,704)    |
| Proceeds from sales of fixed maturity investments                                                               | 16,090,543       | 19,611,680   |
| Proceeds from sales of equity securities                                                                        | 622,068          | 473,064      |
| Proceeds from sales, redemptions and maturities of other investments                                            | 773,298          | 614,494      |
| Proceeds from redemptions and maturities of fixed maturity investments                                          | 511,448          | 447,941      |
| Net settlements of derivative instruments                                                                       | 4,498            | (5,984)      |
| Net sales (purchases) of short-term investments                                                                 | 451,901          | (445,203)    |
| Change in cash collateral related to securities lending                                                         | 176,304          | 175,693      |
| Purchases of fixed assets                                                                                       | (13,242)         | (11,103)     |
| Other                                                                                                           | 49,961           | 33,488       |
| Net cash provided by (used for) investing activities                                                            | 102,399          | (289,115)    |
| <b>Financing Activities</b>                                                                                     |                  |              |
| Redemption of preferred shares                                                                                  | (92,555)         | —            |
| Purchases of common shares under share repurchase program                                                       | (173,575)        | —            |
| Proceeds from common shares issued, net                                                                         | (13,851)         | (6,838)      |
| Proceeds from borrowings                                                                                        | 130,579          | —            |
| Repayments of borrowings                                                                                        | (373,000)        | (72,000)     |
| Change in cash collateral related to securities lending                                                         | (176,304)        | (175,693)    |
| Dividends paid to redeemable noncontrolling interests                                                           | (8,994)          | (8,994)      |
| Other                                                                                                           | (4,489)          | (41,698)     |
| Preferred dividends paid                                                                                        | (20,840)         | (22,567)     |
| Net cash provided by (used for) financing activities                                                            | (733,029)        | (327,790)    |
| Effects of exchange rate changes on foreign currency cash and restricted cash                                   | (10,431)         | 9,616        |
| Increase (decrease) in cash and restricted cash                                                                 | (144,175)        | (73,754)     |
| Cash and restricted cash, beginning of year                                                                     | 727,284          | 969,569      |
| Cash and restricted cash, end of period                                                                         | \$ 583,109       | \$ 895,815   |

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

See Notes to Consolidated Financial Statements

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

## **1. General**

---

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

The interim consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”). All significant intercompany transactions and balances have been eliminated in consolidation. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates and assumptions. In the opinion of management, the accompanying unaudited interim consolidated financial statements reflect all adjustments (consisting of normally recurring accruals) necessary for a fair statement of results on an interim basis. The results of any interim period are not necessarily indicative of the results for a full year or any future periods.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted; however, management believes that the disclosures are adequate to make the information presented not misleading. This report should be read in conjunction with the Company’s Annual Report on Form 10-K for the year ended December 31, 2017 (“2017 Form 10-K”), including the Company’s audited consolidated financial statements and related notes.

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

## **2. Recent Accounting Pronouncements**

---

### Recently Issued Accounting Standards Adopted

The Company adopted ASU 2016-01, “Financial Instruments - Overall (Subtopic 825-10) - Recognition and Measurement of Financial Assets and Financial Liabilities,” which enhances the

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

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

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

### Recently Issued Accounting Standards Not Yet Adopted

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

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

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

### **3. Share Transactions**

---

#### Three-For-One Common Share Split

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

#### Share-Based Compensation

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

#### Share Repurchases

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

#### Conversion of Convertible Non-Voting Common Equivalent Preferred Shares

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

#### Series C Preferred Shares

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

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

#### 4. Earnings Per Common Share

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

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

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

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

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

## **5. Segment Information**

---

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

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

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

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

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

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

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

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

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

|                                                                                       | Three Months Ended |             |            |                |                 |                   |
|---------------------------------------------------------------------------------------|--------------------|-------------|------------|----------------|-----------------|-------------------|
|                                                                                       | June 30, 2018      |             |            |                |                 |                   |
|                                                                                       | Insurance          | Reinsurance | Mortgage   | Sub-Total      | Other           | Total             |
| Gross premiums written (1)                                                            | \$ 769,372         | \$ 490,327  | \$ 330,990 | \$ 1,591,202   | \$ 175,175      | \$ 1,696,544      |
| Premiums ceded                                                                        | (245,265)          | (136,247)   | (50,867)   | (432,892)      | (34,589)        | (397,648)         |
| Net premiums written                                                                  | 524,107            | 354,080     | 280,123    | 1,158,310      | 140,586         | 1,298,896         |
| Change in unearned premiums                                                           | 22,342             | (13,762)    | 10,355     | 18,935         | 18,932          | 37,867            |
| Net premiums earned                                                                   | 546,449            | 340,318     | 290,478    | 1,177,245      | 159,518         | 1,336,763         |
| Other underwriting income (loss)                                                      | —                  | (129)       | 3,315      | 3,186          | 688             | 3,874             |
| Losses and loss adjustment expenses                                                   | (357,465)          | (229,956)   | (21,591)   | (609,012)      | (117,141)       | (726,153)         |
| Acquisition expenses                                                                  | (90,670)           | (50,142)    | (27,737)   | (168,549)      | (34,289)        | (202,838)         |
| Other operating expenses                                                              | (92,680)           | (35,678)    | (38,729)   | (167,087)      | (9,094)         | (176,181)         |
| Underwriting income (loss)                                                            | \$ 5,634           | \$ 24,413   | \$ 205,736 | 235,783        | (318)           | 235,465           |
| Net investment income                                                                 |                    |             |            | 107,761        | 27,907          | 135,668           |
| Net realized gains (losses)                                                           |                    |             |            | (59,545)       | (17,066)        | (76,611)          |
| Net impairment losses recognized in earnings                                          |                    |             |            | (470)          | —               | (470)             |
| Equity in net income (loss) of investment funds accounted for using the equity method |                    |             |            | 8,472          | —               | 8,472             |
| Other income (loss)                                                                   |                    |             |            | 3,113          | —               | 3,113             |
| Corporate expenses (2)                                                                |                    |             |            | (15,604)       | —               | (15,604)          |
| UGC transaction costs and other (2)                                                   |                    |             |            | (6,908)        | —               | (6,908)           |
| Amortization of intangible assets                                                     |                    |             |            | (26,472)       | —               | (26,472)          |
| Interest expense                                                                      |                    |             |            | (26,058)       | (4,286)         | (30,344)          |
| Net foreign exchange gains (losses)                                                   |                    |             |            | 46,211         | 7,495           | 53,706            |
| <b>Income before income taxes</b>                                                     |                    |             |            | 266,283        | 13,732          | 280,015           |
| Income tax expense                                                                    |                    |             |            | (23,644)       | (24)            | (23,668)          |
| <b>Net income</b>                                                                     |                    |             |            | 242,639        | 13,708          | 256,347           |
| Dividends attributable to redeemable noncontrolling interests                         |                    |             |            | —              | (4,585)         | (4,585)           |
| Amounts attributable to nonredeemable noncontrolling interests                        |                    |             |            | —              | (8,116)         | (8,116)           |
| <b>Net income available to Arch</b>                                                   |                    |             |            | 242,639        | 1,007           | 243,646           |
| Preferred dividends                                                                   |                    |             |            | (10,403)       | —               | (10,403)          |
| <b>Net income available to Arch common shareholders</b>                               | <b>\$</b>          |             |            | <b>232,236</b> | <b>\$ 1,007</b> | <b>\$ 233,243</b> |
| <b>Underwriting Ratios</b>                                                            |                    |             |            |                |                 |                   |
| Loss ratio                                                                            | 65.4%              | 67.6%       | 7.4%       | 51.7%          | 73.4%           | 54.3%             |
| Acquisition expense ratio                                                             | 16.6%              | 14.7%       | 9.5%       | 14.3%          | 21.5%           | 15.2%             |
| Other operating expense ratio                                                         | 17.0%              | 10.5%       | 13.3%      | 14.2%          | 5.7%            | 13.2%             |
| Combined ratio                                                                        | 99.0%              | 92.8%       | 30.2%      | 80.2%          | 100.6%          | 82.7%             |
| Goodwill and intangible assets                                                        | \$ 20,724          | \$ —        | \$ 564,634 | \$ 585,358     | \$ 7,650        | \$ 593,008        |

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

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

Three Months Ended

June 30, 2017

|                                                                                       | Insurance  | Reinsurance | Mortgage   | Sub-Total    | Other      | Total        |
|---------------------------------------------------------------------------------------|------------|-------------|------------|--------------|------------|--------------|
| Gross premiums written (1)                                                            | \$ 743,902 | \$ 453,186  | \$ 336,226 | \$ 1,533,142 | \$ 152,813 | \$ 1,609,659 |
| Premiums ceded                                                                        | (247,446)  | (115,262)   | (62,314)   | (424,850)    | (12,410)   | (360,964)    |
| Net premiums written                                                                  | 496,456    | 337,924     | 273,912    | 1,108,292    | 140,403    | 1,248,695    |
| Change in unearned premiums                                                           | 21,118     | (23,222)    | (16,068)   | (18,172)     | 10,351     | (7,821)      |
| Net premiums earned                                                                   | 517,574    | 314,702     | 257,844    | 1,090,120    | 150,754    | 1,240,874    |
| Other underwriting income (loss)                                                      | —          | (279)       | 4,277      | 3,998        | 824        | 4,822        |
| Losses and loss adjustment expenses                                                   | (350,939)  | (207,606)   | (20,694)   | (579,239)    | (110,621)  | (689,860)    |
| Acquisition expenses                                                                  | (78,872)   | (51,151)    | (25,666)   | (155,689)    | (34,747)   | (190,436)    |
| Other operating expenses                                                              | (92,267)   | (36,711)    | (32,150)   | (161,128)    | (8,853)    | (169,981)    |
| Underwriting income (loss)                                                            | \$ (4,504) | \$ 18,955   | \$ 183,611 | 198,062      | (2,643)    | 195,419      |
| Net investment income                                                                 |            |             |            | 92,520       | 18,604     | 111,124      |
| Net realized gains (losses)                                                           |            |             |            | 18,046       | 3,689      | 21,735       |
| Net impairment losses recognized in earnings                                          |            |             |            | (1,730)      | —          | (1,730)      |
| Equity in net income (loss) of investment funds accounted for using the equity method |            |             |            | 32,706       | —          | 32,706       |
| Other income (loss)                                                                   |            |             |            | (1,994)      | —          | (1,994)      |
| Corporate expenses (2)                                                                |            |             |            | (22,201)     | —          | (22,201)     |
| UGC transaction costs and other (2)                                                   |            |             |            | (2,675)      | —          | (2,675)      |
| Amortization of intangible assets                                                     |            |             |            | (30,824)     | —          | (30,824)     |
| Interest expense                                                                      |            |             |            | (25,912)     | (2,837)    | (28,749)     |
| Net foreign exchange gains (losses)                                                   |            |             |            | (37,821)     | (1,722)    | (39,543)     |
| <b>Income before income taxes</b>                                                     |            |             |            | 218,177      | 15,091     | 233,268      |
| Income tax expense                                                                    |            |             |            | (34,169)     | —          | (34,169)     |
| <b>Net income</b>                                                                     |            |             |            | 184,008      | 15,091     | 199,099      |
| Dividends attributable to redeemable noncontrolling interests                         |            |             |            | —            | (4,586)    | (4,586)      |
| Amounts attributable to nonredeemable noncontrolling interests                        |            |             |            | —            | (9,346)    | (9,346)      |
| <b>Net income available to Arch</b>                                                   |            |             |            | 184,008      | 1,159      | 185,167      |
| Preferred dividends                                                                   |            |             |            | (11,349)     | —          | (11,349)     |
| <b>Net income available to Arch common shareholders</b>                               |            |             |            | \$ 172,659   | \$ 1,159   | \$ 173,818   |
| <b>Underwriting Ratios</b>                                                            |            |             |            |              |            |              |
| Loss ratio                                                                            | 67.8%      | 66.0%       | 8.0%       | 53.1%        | 73.4%      | 55.6%        |
| Acquisition expense ratio                                                             | 15.2%      | 16.3%       | 10.0%      | 14.3%        | 23.0%      | 15.3%        |
| Other operating expense ratio                                                         | 17.8%      | 11.7%       | 12.5%      | 14.8%        | 5.9%       | 13.7%        |
| Combined ratio                                                                        | 100.8%     | 94.0%       | 30.5%      | 82.2%        | 102.3%     | 84.6%        |
| Goodwill and intangible assets                                                        | \$ 24,480  | \$ 609      | \$ 680,236 | \$ 705,325   | \$ 7,650   | \$ 712,975   |

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

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

Six Months Ended

June 30, 2018

|                                                                                       | Insurance    | Reinsurance  | Mortgage   | Sub-Total    | Other      | Total        |
|---------------------------------------------------------------------------------------|--------------|--------------|------------|--------------|------------|--------------|
| Gross premiums written (1)                                                            | \$ 1,592,750 | \$ 1,067,810 | \$ 652,168 | \$ 3,312,807 | \$ 389,045 | \$ 3,534,758 |
| Premiums ceded                                                                        | (492,445)    | (331,977)    | (97,004)   | (921,505)    | (68,907)   | (823,318)    |
| Net premiums written                                                                  | 1,100,305    | 735,833      | 555,164    | 2,391,302    | 320,138    | 2,711,440    |
| Change in unearned premiums                                                           | (15,119)     | (116,343)    | 15,556     | (115,906)    | (23,872)   | (139,778)    |
| Net premiums earned                                                                   | 1,085,186    | 619,490      | 570,720    | 2,275,396    | 296,266    | 2,571,662    |
| Other underwriting income (loss)                                                      | —            | 1,103        | 6,731      | 7,834        | 1,389      | 9,223        |
| Losses and loss adjustment expenses                                                   | (711,195)    | (371,631)    | (65,057)   | (1,147,883)  | (215,130)  | (1,363,013)  |
| Acquisition expenses                                                                  | (175,839)    | (98,461)     | (54,304)   | (328,604)    | (65,610)   | (394,214)    |
| Other operating expenses                                                              | (184,654)    | (71,249)     | (77,500)   | (333,403)    | (17,793)   | (351,196)    |
| Underwriting income (loss)                                                            | \$ 13,498    | \$ 79,252    | \$ 380,590 | 473,340      | (878)      | 472,462      |
| Net investment income                                                                 |              |              |            | 208,004      | 54,388     | 262,392      |
| Net realized gains (losses)                                                           |              |              |            | (171,404)    | (16,205)   | (187,609)    |
| Net impairment losses recognized in earnings                                          |              |              |            | (632)        | —          | (632)        |
| Equity in net income (loss) of investment funds accounted for using the equity method |              |              |            | 36,541       | —          | 36,541       |
| Other income (loss)                                                                   |              |              |            | 3,187        | —          | 3,187        |
| Corporate expenses (2)                                                                |              |              |            | (30,086)     | —          | (30,086)     |
| UGC transaction costs and other (2)                                                   |              |              |            | (7,738)      | —          | (7,738)      |
| Amortization of intangible assets                                                     |              |              |            | (53,208)     | —          | (53,208)     |
| Interest expense                                                                      |              |              |            | (51,965)     | (9,015)    | (60,980)     |
| Net foreign exchange gains (losses)                                                   |              |              |            | 31,172       | 2,813      | 33,985       |
| <b>Income before income taxes</b>                                                     |              |              |            | 437,211      | 31,103     | 468,314      |
| Income tax expense                                                                    |              |              |            | (45,556)     | (27)       | (45,583)     |
| <b>Net income</b>                                                                     |              |              |            | 391,655      | 31,076     | 422,731      |
| Dividends attributable to redeemable noncontrolling interests                         |              |              |            | —            | (9,170)    | (9,170)      |
| Amounts attributable to nonredeemable noncontrolling interests                        |              |              |            | —            | (19,492)   | (19,492)     |
| <b>Net income available to Arch</b>                                                   |              |              |            | 391,655      | 2,414      | 394,069      |
| Preferred dividends                                                                   |              |              |            | (20,840)     | —          | (20,840)     |
| Loss on redemption of preferred shares                                                |              |              |            | (2,710)      | —          | (2,710)      |
| <b>Net income available to Arch common shareholders</b>                               |              |              |            | \$ 368,105   | \$ 2,414   | \$ 370,519   |
| <b>Underwriting Ratios</b>                                                            |              |              |            |              |            |              |
| Loss ratio                                                                            | 65.5%        | 60.0%        | 11.4%      | 50.4%        | 72.6%      | 53.0%        |
| Acquisition expense ratio                                                             | 16.2%        | 15.9%        | 9.5%       | 14.4%        | 22.1%      | 15.3%        |
| Other operating expense ratio                                                         | 17.0%        | 11.5%        | 13.6%      | 14.7%        | 6.0%       | 13.7%        |
| Combined ratio                                                                        | 98.7%        | 87.4%        | 34.5%      | 79.5%        | 100.7%     | 82.0%        |

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

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

Six Months Ended

June 30, 2017

|                                                                                       | Insurance    | Reinsurance | Mortgage   | Sub-Total    | Other      | Total        |
|---------------------------------------------------------------------------------------|--------------|-------------|------------|--------------|------------|--------------|
| Gross premiums written (1)                                                            | \$ 1,526,183 | \$ 928,968  | \$ 684,849 | \$ 3,139,828 | \$ 306,933 | \$ 3,267,649 |
| Premiums ceded                                                                        | (481,541)    | (281,354)   | (136,239)  | (898,962)    | (22,844)   | (742,694)    |
| Net premiums written                                                                  | 1,044,642    | 647,614     | 548,610    | 2,240,866    | 284,089    | 2,524,955    |
| Change in unearned premiums                                                           | (21,422)     | (88,061)    | (46,243)   | (155,726)    | (11,338)   | (167,064)    |
| Net premiums earned                                                                   | 1,023,220    | 559,553     | 502,367    | 2,085,140    | 272,751    | 2,357,891    |
| Other underwriting income (loss)                                                      | —            | (585)       | 8,400      | 7,815        | 1,640      | 9,455        |
| Losses and loss adjustment expenses                                                   | (683,580)    | (313,060)   | (49,759)   | (1,046,399)  | (196,031)  | (1,242,430)  |
| Acquisition expenses                                                                  | (153,740)    | (97,298)    | (54,432)   | (305,470)    | (67,255)   | (372,725)    |
| Other operating expenses                                                              | (180,393)    | (74,244)    | (74,020)   | (328,657)    | (16,043)   | (344,700)    |
| Underwriting income (loss)                                                            | \$ 5,507     | \$ 74,366   | \$ 332,556 | 412,429      | (4,938)    | 407,491      |
| Net investment income                                                                 |              |             |            | 188,332      | 40,666     | 228,998      |
| Net realized gains (losses)                                                           |              |             |            | 46,558       | 9,330      | 55,888       |
| Net impairment losses recognized in earnings                                          |              |             |            | (3,537)      | —          | (3,537)      |
| Equity in net income (loss) of investment funds accounted for using the equity method |              |             |            | 80,794       | —          | 80,794       |
| Other income (loss)                                                                   |              |             |            | (2,776)      | —          | (2,776)      |
| Corporate expenses (2)                                                                |              |             |            | (34,409)     | —          | (34,409)     |
| UGC transaction costs and other (2)                                                   |              |             |            | (18,259)     | —          | (18,259)     |
| Amortization of intangible assets                                                     |              |             |            | (62,118)     | —          | (62,118)     |
| Interest expense                                                                      |              |             |            | (51,668)     | (5,757)    | (57,425)     |
| Net foreign exchange gains (losses)                                                   |              |             |            | (57,666)     | (1,281)    | (58,947)     |
| <b>Income before income taxes</b>                                                     |              |             |            | 497,680      | 38,020     | 535,700      |
| Income tax expense                                                                    |              |             |            | (62,566)     | —          | (62,566)     |
| <b>Net income</b>                                                                     |              |             |            | 435,114      | 38,020     | 473,134      |
| Dividends attributable to redeemable noncontrolling interests                         |              |             |            | —            | (9,170)    | (9,170)      |
| Amounts attributable to nonredeemable noncontrolling interests                        |              |             |            | —            | (25,670)   | (25,670)     |
| <b>Net income available to Arch</b>                                                   |              |             |            | 435,114      | 3,180      | 438,294      |
| Preferred dividends                                                                   |              |             |            | (22,567)     | —          | (22,567)     |
| <b>Net income available to Arch common shareholders</b>                               |              |             |            | \$ 412,547   | \$ 3,180   | \$ 415,727   |
| <b>Underwriting Ratios</b>                                                            |              |             |            |              |            |              |
| Loss ratio                                                                            | 66.8%        | 55.9%       | 9.9%       | 50.2%        | 71.9%      | 52.7%        |
| Acquisition expense ratio                                                             | 15.0%        | 17.4%       | 10.8%      | 14.6%        | 24.7%      | 15.8%        |
| Other operating expense ratio                                                         | 17.6%        | 13.3%       | 14.7%      | 15.8%        | 5.9%       | 14.6%        |
| Combined ratio                                                                        | 99.4%        | 86.6%       | 35.4%      | 80.6%        | 102.5%     | 83.1%        |

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

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

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

## 6. Reserve for Losses and Loss Adjustment Expenses

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

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

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

### Development on Prior Year Loss Reserves

#### 2018 Second Quarter

During the 2018 second quarter, the Company recorded net favorable development on prior year loss reserves of \$64.6 million, which consisted of \$33.0 million from the reinsurance segment, \$6.1 million from the insurance segment, \$23.3 million from the mortgage segment and \$2.2 million from the 'other' segment.

The reinsurance segment's net favorable development of \$33.0 million, or 9.7 loss ratio points, for the 2018 second quarter consisted of \$22.2 million from short-tailed lines and \$10.8 million from long-tailed and medium-tailed lines. Favorable development in short-tailed lines included \$19.3 million from property catastrophe and property other than property catastrophe reserves, across most underwriting years (i.e., all premiums and losses attributable to contracts having an inception or renewal date within the given twelve-month period), reflecting lower levels of reported and paid claims activity than previously anticipated which led to decreases in certain loss ratio selections during the period. Favorable development in long-tailed and medium-tailed lines reflected

reductions in marine reserves of \$3.8 million, across most accident years, and in casualty reserves of \$6.9 million based on varying levels of reported and paid claims activity, primarily from the 2003 to 2010 underwriting years.

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

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

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

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

#### *2017 Second Quarter*

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

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

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

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

#### *Six Months Ended June 30, 2018*

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

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

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

The mortgage segment's net favorable development was \$36.3 million , or 6.4 loss ratio points, for the 2018 period. The 2018

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

development was primarily driven by continued lower than expected claim rates on first lien business and subrogation recoveries on second lien business at Arch MI U.S.

*Six Months Ended June 30, 2017*

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

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

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

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

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

## 7. Investment Information

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

### Available For Sale Investments

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

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

- (1) In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See "—Securities Lending Agreements."
- (2) Represents the total other-than-temporary impairments ("OTTI") recognized in accumulated other comprehensive income ("AOCI"). It does not include the change in fair value subsequent to the impairment measurement date. At June 30, 2018, the net unrealized gain related to securities for which a non-credit OTTI was recognized in AOCI was \$0.2 million, compared to a net unrealized gain of \$0.3 million at December 31, 2017.
- (3) Effective January 1, 2018, the Company adopted new accounting guidance for financial instruments (see Note 2). As a result, equity securities are no longer accounted for as available for sale and are excluded from this table.

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

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

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

- (1) In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See “—Securities Lending Agreements.”
- (2) Effective January 1, 2018, the Company adopted new accounting guidance for financial instruments (see Note 2 ). As a result, equity securities are no longer accounted for as available for sale and are excluded from this table.

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

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

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

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

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

#### Securities Lending Agreements

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

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

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

|                                                                                                  | Remaining Contractual Maturity of the Agreements |                   |            |                 |            |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------|------------|-----------------|------------|
|                                                                                                  | Overnight and Continuous                         | Less than 30 Days | 30-90 Days | 90 Days or More | Total      |
| <b>June 30, 2018</b>                                                                             |                                                  |                   |            |                 |            |
| U.S. government and government agencies                                                          | \$ 147,509                                       | \$ —              | \$ 48,268  | \$ —            | \$ 195,777 |
| Corporate bonds                                                                                  | 29,265                                           | —                 | —          | —               | 29,265     |
| Equity securities                                                                                | 11,906                                           | —                 | —          | —               | 11,906     |
| Total                                                                                            | \$ 188,680                                       | \$ —              | \$ 48,268  | \$ —            | \$ 236,948 |
| Gross amount of recognized liabilities for securities lending in offsetting disclosure in Note 9 |                                                  |                   |            |                 | \$ —       |
| Amounts related to securities lending not included in offsetting disclosure in Note 9            |                                                  |                   |            |                 | \$ 236,948 |
| <b>December 31, 2017</b>                                                                         |                                                  |                   |            |                 |            |
| U.S. government and government agencies                                                          | \$ 343,425                                       | \$ 20,309         | \$ 76,086  | \$ —            | \$ 439,820 |
| Corporate bonds                                                                                  | 28,003                                           | —                 | —          | —               | 28,003     |
| Equity securities                                                                                | 8,782                                            | —                 | —          | —               | 8,782      |
| Total                                                                                            | \$ 380,210                                       | \$ 20,309         | \$ 76,086  | \$ —            | \$ 476,605 |
| Gross amount of recognized liabilities for securities lending in offsetting disclosure in Note 9 |                                                  |                   |            |                 | \$ —       |
| Amounts related to securities lending not included in offsetting disclosure in Note 9            |                                                  |                   |            |                 | \$ 476,605 |

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

Other Investments

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

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

- (1) The Company reviewed the accounting treatment for three limited partnership investments which were accounted for as available for sale at December 31, 2017 during the 2018 first quarter and determined, based on reconsideration during the period of the Company's percentage ownership, that the equity method of accounting was appropriate for such investments.
- (2) Includes fund investments with strategies in mortgage servicing rights, transportation, infrastructure assets and other.

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

Fair Value Option

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

|                                                       | June 30,<br>2018 | December 31,<br>2017 |
|-------------------------------------------------------|------------------|----------------------|
| Fixed maturities                                      | \$ 1,428,503     | \$ 1,642,855         |
| Other investments                                     | 2,328,904        | 2,136,381            |
| Short-term investments                                | 217,066          | 297,426              |
| Equity securities                                     | 137,138          | 139,575              |
| Investments accounted for using the fair value option | \$ 4,111,611     | \$ 4,216,237         |

Limited Partnership Interests

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

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

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

- (1) Aggregate unfunded commitments were \$994.7 million at June 30, 2018, compared to \$1.02 billion at December 31, 2017.
- (2) Aggregate unfunded commitments were \$91.0 million at June 30, 2018, compared to \$100.4 million at December 31, 2017.

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

**Net Investment Income**

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

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

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

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

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

**Net Realized Gains (Losses)**

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

|                                                                                           | <b>June 30,</b> |             |
|-------------------------------------------------------------------------------------------|-----------------|-------------|
|                                                                                           | <b>2018</b>     | <b>2017</b> |
| <b><u>Three Months Ended</u></b>                                                          |                 |             |
| Available for sale securities:                                                            |                 |             |
| Gross gains on investment sales                                                           | \$ 18,777       | \$ 76,730   |
| Gross losses on investment sales                                                          | (57,711)        | (52,619)    |
| Change in fair value of assets and liabilities accounted for using the fair value option: |                 |             |
| Fixed maturities                                                                          | (22,927)        | 9,656       |
| Other investments                                                                         | (254)           | 637         |
| Equity securities                                                                         | 1,230           | 2,829       |
| Short-term investments                                                                    | (136)           | 3,328       |
| Equity securities, at fair value (1):                                                     |                 |             |
| Net realized gains (losses) on sales during the period                                    | (5,918)         | —           |
| Net unrealized gains (losses) on equity securities still held at reporting date           | (7,278)         | —           |
| Derivative instruments (2)                                                                | (2,146)         | (4,770)     |
| Other (3)                                                                                 | (248)           | (14,056)    |
| Net realized gains (losses)                                                               | \$ (76,611)     | \$ 21,735   |
| <b><u>Six Months Ended</u></b>                                                            |                 |             |
| Available for sale securities:                                                            |                 |             |
| Gross gains on investment sales                                                           | \$ 33,742       | \$ 145,905  |
| Gross losses on investment sales                                                          | (140,262)       | (113,981)   |
| Change in fair value of assets and liabilities accounted for using the fair value option: |                 |             |
| Fixed maturities                                                                          | (40,478)        | 30,197      |
| Other investments                                                                         | (6,628)         | 17,885      |
| Equity securities                                                                         | 7,898           | 6,374       |
| Short-term investments                                                                    | (287)           | 3,332       |
| Equity securities, at fair value (1):                                                     |                 |             |
| Net realized gains (losses) on sales during the period                                    | (11,286)        | —           |
| Net unrealized gains (losses) on equity securities still held at reporting date           | (14,861)        | —           |
| Derivative instruments (2)                                                                | (6,109)         | (13,951)    |
| Other (3)                                                                                 | (9,338)         | (19,873)    |
| Net realized gains (losses)                                                               | \$ (187,609)    | \$ 55,888   |

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

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

**Net Impairment Losses Recognized in Earnings**

The Company performs quarterly reviews of its available for sale investments in order to determine whether declines in fair value below the amortized cost basis were considered other-than-temporary in accordance with applicable guidance.

The following table details the net impairment losses recognized in earnings by asset class:

|                                              | <b>June 30,</b> |             |
|----------------------------------------------|-----------------|-------------|
|                                              | <b>2018</b>     | <b>2017</b> |
| <b>Three Months Ended</b>                    |                 |             |
| Fixed maturities:                            |                 |             |
| Mortgage backed securities                   | \$ (81)         | \$ (92)     |
| Corporate bonds                              | (241)           | (1,401)     |
| Asset backed securities                      | (148)           | —           |
| Municipal bonds                              | —               | (173)       |
| Total                                        | (470)           | (1,666)     |
| Other investments                            | —               | (64)        |
| Net impairment losses recognized in earnings | \$ (470)        | \$ (1,730)  |

**Six Months Ended**

|                                              |          |            |
|----------------------------------------------|----------|------------|
| Fixed maturities:                            |          |            |
| Mortgage backed securities                   | \$ (123) | \$ (1,411) |
| Corporate bonds                              | (361)    | (1,402)    |
| Non-U.S. government securities               | —        | (198)      |
| Asset backed securities                      | (148)    | —          |
| Municipal bonds                              | —        | (173)      |
| Total                                        | (632)    | (3,184)    |
| Equity securities                            | —        | (186)      |
| Other investments                            | —        | (167)      |
| Net impairment losses recognized in earnings | \$ (632) | \$ (3,537) |

Net impairment losses recognized in earnings in the 2018 periods were primarily related to foreign currency fluctuations on corporate bonds and asset backed securities.

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

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

|                                                                                                                             | <b>June 30,</b> |             |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|
|                                                                                                                             | <b>2018</b>     | <b>2017</b> |
| <b>Three Months Ended</b>                                                                                                   |                 |             |
| Balance at start of period                                                                                                  | \$ 767          | \$ 12,537   |
| Credit loss impairments recognized on securities not previously impaired                                                    | —               | 31          |
| Credit loss impairments recognized on securities previously impaired                                                        | —               | 172         |
| Reductions for increases in cash flows expected to be collected that are recognized over the remaining life of the security | —               | —           |
| Reductions for securities sold during the period                                                                            | (69)            | (8,303)     |
| Balance at end of period                                                                                                    | \$ 698          | \$ 4,437    |

**Six Months Ended**

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

**Restricted Assets**

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

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

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

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

## **8. Fair Value**

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

The levels in the hierarchy are defined as follows:

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

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

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

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

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

### Fixed maturities

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

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

The following describes the significant inputs generally used to determine the fair value of the Company's fixed maturity securities by asset class:

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

- Commercial mortgage-backed securities — valuations provided by independent pricing services, substantially all through index providers and pricing vendors with a small amount through broker-dealers. The fair values of these securities are generally determined through the use of pricing models which use spreads to determine the appropriate average life of the securities. These spreads are generally obtained from the new issue market, secondary trading and from broker-dealers who trade in the relevant security market. The pricing services also review prepayment speeds and other indicators, when applicable. As the significant inputs used in the pricing process for commercial mortgage-backed securities are observable market inputs, the fair value of these securities are classified within Level 2. A small number of securities are included in Level 3 due to a low level of transparency on the inputs used in the pricing process.

- Non-U.S. government securities — valuations provided by independent pricing services, with all prices provided through index providers and pricing vendors. The fair values of these securities are generally based on international indices or valuation models which include daily observed yield curves, cross-currency basis index spreads and country credit spreads. As the significant inputs used in the pricing process for non-U.S. government securities are observable market inputs, the fair value of these securities are classified within Level 2.

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

#### Equity securities

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

#### Other investments

The Company determined that exchange-traded investments in mutual funds would be included in Level 1 as their fair values are based on quoted market prices in active markets. Other investments also include term loan investments for which fair values are estimated by using quoted prices of term loan

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

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

Derivative instruments

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

Short-term investments

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

Contingent consideration liabilities

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

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

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

|                                                   | Estimated<br>Fair<br>Value | Estimated Fair Value Measurements Using:                                   |                                                           |                                                    |
|---------------------------------------------------|----------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------|
|                                                   |                            | Quoted Prices in<br>Active Markets<br>for Identical<br>Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |
| <u>Assets measured at fair value (1):</u>         |                            |                                                                            |                                                           |                                                    |
| Available for sale securities:                    |                            |                                                                            |                                                           |                                                    |
| Fixed maturities:                                 |                            |                                                                            |                                                           |                                                    |
| Corporate bonds                                   | \$ 5,535,763               | \$ —                                                                       | \$ 5,526,990                                              | \$ 8,773                                           |
| Mortgage backed securities                        | 488,699                    | —                                                                          | 488,352                                                   | 347                                                |
| Municipal bonds                                   | 1,431,256                  | —                                                                          | 1,431,256                                                 | —                                                  |
| Commercial mortgage backed securities             | 590,198                    | —                                                                          | 590,169                                                   | 29                                                 |
| U.S. government and government agencies           | 2,788,272                  | 2,660,621                                                                  | 127,651                                                   | —                                                  |
| Non-U.S. government securities                    | 1,692,783                  | —                                                                          | 1,692,783                                                 | —                                                  |
| Asset backed securities                           | 1,820,489                  | —                                                                          | 1,820,489                                                 | —                                                  |
| Total                                             | 14,347,460                 | 2,660,621                                                                  | 11,677,690                                                | 9,149                                              |
| Short-term investments                            | 1,096,798                  | 1,053,661                                                                  | 43,137                                                    | —                                                  |
| Equity securities, at fair value                  | 546,075                    | 493,975                                                                    | 52,100                                                    | —                                                  |
| Derivative instruments (4)                        | 31,623                     | —                                                                          | 31,623                                                    | —                                                  |
| Fair value option:                                |                            |                                                                            |                                                           |                                                    |
| Corporate bonds                                   | 936,840                    | —                                                                          | 925,505                                                   | 11,335                                             |
| Non-U.S. government bonds                         | 132,162                    | —                                                                          | 132,162                                                   | —                                                  |
| Mortgage backed securities                        | 16,410                     | —                                                                          | 16,410                                                    | —                                                  |
| Municipal bonds                                   | 7,082                      | —                                                                          | 7,082                                                     | —                                                  |
| Commercial mortgage backed securities             | 1,306                      | —                                                                          | 1,306                                                     | —                                                  |
| Asset backed securities                           | 214,718                    | —                                                                          | 214,718                                                   | —                                                  |
| U.S. government and government agencies           | 119,985                    | 119,875                                                                    | 110                                                       | —                                                  |
| Short-term investments                            | 217,066                    | 19,869                                                                     | 197,197                                                   | —                                                  |
| Equity securities                                 | 137,138                    | 65,400                                                                     | 71,738                                                    | —                                                  |
| Other investments                                 | 1,260,645                  | 65,665                                                                     | 1,136,766                                                 | 58,214                                             |
| Other investments measured at net asset value (2) | 1,068,259                  |                                                                            |                                                           |                                                    |
| Total                                             | 4,111,611                  | 270,809                                                                    | 2,702,994                                                 | 69,549                                             |
| Total assets measured at fair value               | \$ 20,133,567              | \$ 4,479,066                                                               | \$ 14,507,544                                             | \$ 78,698                                          |
| <u>Liabilities measured at fair value:</u>        |                            |                                                                            |                                                           |                                                    |
| Contingent consideration liabilities              | \$ (63,930)                | \$ —                                                                       | \$ —                                                      | \$ (63,930)                                        |
| Securities sold but not yet purchased (3)         | (24,529)                   | —                                                                          | (24,529)                                                  | —                                                  |
| Derivative instruments (4)                        | (22,398)                   | —                                                                          | (22,398)                                                  | —                                                  |
| Total liabilities measured at fair value          | \$ (110,857)               | \$ —                                                                       | \$ (46,927)                                               | \$ (63,930)                                        |

- (1) In securities lending transactions, the Company receives collateral in excess of the fair value of the securities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See Note 7, "Investment Information—Securities Lending Agreements."
- (2) In accordance with applicable accounting guidance, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheets.
- (3) Represents the Company's obligations to deliver securities that it did not own at the time of sale. Such amounts are included in "other liabilities" on the Company's consolidated balance sheets.
- (4) See Note 9, "Derivative Instruments."

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

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

|                                                   | Estimated<br>Fair<br>Value | Estimated Fair Value Measurements Using:                                   |                                                           |                                                    |
|---------------------------------------------------|----------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------|
|                                                   |                            | Quoted Prices in<br>Active Markets<br>for Identical<br>Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |
| <u>Assets measured at fair value (1):</u>         |                            |                                                                            |                                                           |                                                    |
| Available for sale securities:                    |                            |                                                                            |                                                           |                                                    |
| Fixed maturities:                                 |                            |                                                                            |                                                           |                                                    |
| Corporate bonds                                   | \$ 4,434,439               | \$ —                                                                       | \$ 4,424,979                                              | \$ 9,460                                           |
| Mortgage backed securities                        | 316,141                    | —                                                                          | 315,754                                                   | 387                                                |
| Municipal bonds                                   | 2,158,840                  | —                                                                          | 2,158,840                                                 | —                                                  |
| Commercial mortgage backed securities             | 545,817                    | —                                                                          | 545,277                                                   | 540                                                |
| U.S. government and government agencies           | 3,484,257                  | 3,408,902                                                                  | 75,355                                                    | —                                                  |
| Non-U.S. government securities                    | 1,612,754                  | —                                                                          | 1,612,754                                                 | —                                                  |
| Asset backed securities                           | 1,780,143                  | —                                                                          | 1,775,143                                                 | 5,000                                              |
| Total                                             | 14,332,391                 | 3,408,902                                                                  | 10,908,102                                                | 15,387                                             |
| Equity securities                                 | 504,333                    | 498,182                                                                    | 6,151                                                     | —                                                  |
| Short-term investments                            | 1,469,042                  | 1,420,732                                                                  | 48,310                                                    | —                                                  |
| Other investments                                 | 76,427                     | 74,611                                                                     | 1,816                                                     | —                                                  |
| Other investments measured at net asset value (2) | 188,562                    |                                                                            |                                                           |                                                    |
| Total other investments                           | 264,989                    | 74,611                                                                     | 1,816                                                     | —                                                  |
| Derivative instruments (4)                        | 15,747                     | —                                                                          | 15,747                                                    | —                                                  |
| Fair value option:                                |                            |                                                                            |                                                           |                                                    |
| Corporate bonds                                   | 1,068,725                  | —                                                                          | 1,056,508                                                 | 12,217                                             |
| Non-U.S. government bonds                         | 195,788                    | —                                                                          | 195,788                                                   | —                                                  |
| Mortgage backed securities                        | 20,491                     | —                                                                          | 20,491                                                    | —                                                  |
| Municipal bonds                                   | 15,210                     | —                                                                          | 15,210                                                    | —                                                  |
| Commercial mortgage backed securities             | 11,997                     | —                                                                          | 11,997                                                    | —                                                  |
| Asset backed securities                           | 99,354                     | —                                                                          | 99,354                                                    | —                                                  |
| U.S. government and government agencies           | 231,290                    | 231,019                                                                    | 271                                                       | —                                                  |
| Short-term investments                            | 297,426                    | 40,166                                                                     | 257,260                                                   | —                                                  |
| Equity securities                                 | 139,575                    | 67,440                                                                     | 72,135                                                    | —                                                  |
| Other investments                                 | 1,128,094                  | 82,291                                                                     | 986,636                                                   | 59,167                                             |
| Other investments measured at net asset value (2) | 1,008,287                  |                                                                            |                                                           |                                                    |
| Total                                             | 4,216,237                  | 420,916                                                                    | 2,715,650                                                 | 71,384                                             |
| Total assets measured at fair value               | \$ 20,802,739              | \$ 5,823,343                                                               | \$ 13,695,776                                             | \$ 86,771                                          |
| <u>Liabilities measured at fair value:</u>        |                            |                                                                            |                                                           |                                                    |
| Contingent consideration liabilities              | \$ (60,996)                | \$ —                                                                       | \$ —                                                      | \$ (60,996)                                        |
| Securities sold but not yet purchased (3)         | (34,375)                   | —                                                                          | (34,375)                                                  | —                                                  |
| Derivative instruments (4)                        | (20,464)                   | —                                                                          | (20,464)                                                  | —                                                  |
| Total liabilities measured at fair value          | \$ (115,835)               | \$ —                                                                       | \$ (54,839)                                               | \$ (60,996)                                        |

- (1) In securities lending transactions, the Company receives collateral in excess of the fair value of the securities pledged. For purposes of this table, the Company has excluded the collateral received under securities lending, at fair value and included the securities pledged under securities lending, at fair value. See Note 7, "Investment Information—Securities Lending Agreements."
- (2) In accordance with applicable accounting guidance, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheets.
- (3) Represents the Company's obligations to deliver securities that it did not own at the time of sale. Such amounts are included in "other liabilities" on the Company's consolidated balance sheets.
- (4) See Note 9, "Derivative Instruments."



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

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

|                                               | Assets                    |                 |                   |                   |           | Liabilities                          |
|-----------------------------------------------|---------------------------|-----------------|-------------------|-------------------|-----------|--------------------------------------|
|                                               | Available For Sale        |                 | Fair Value Option |                   |           | Contingent Consideration Liabilities |
|                                               | Structured Securities (1) | Corporate Bonds | Corporate Bonds   | Other Investments | Total     |                                      |
| <b>Three Months Ended June 30, 2018</b>       |                           |                 |                   |                   |           |                                      |
| Balance at beginning of period                | \$ 5,413                  | \$ 9,152        | \$ 11,872         | \$ 58,452         | \$ 84,889 | \$ (62,449)                          |
| Total gains or (losses) (realized/unrealized) |                           |                 |                   |                   |           |                                      |
| Included in earnings (2)                      | 3                         | —               | (537)             | 336               | (198)     | (1,481)                              |
| Included in other comprehensive income        | (4)                       | (316)           | —                 | —                 | (320)     | —                                    |
| Purchases, issuances, sales and settlements   |                           |                 |                   |                   |           |                                      |
| Purchases                                     | —                         | 393             | —                 | —                 | 393       | —                                    |
| Issuances                                     | —                         | —               | —                 | —                 | —         | —                                    |
| Sales                                         | (5,003)                   | —               | —                 | (74)              | (5,077)   | —                                    |
| Settlements                                   | (33)                      | (456)           | —                 | (500)             | (989)     | —                                    |
| Transfers in and/or out of Level 3            | —                         | —               | —                 | —                 | —         | —                                    |
| Balance at end of period                      | \$ 376                    | \$ 8,773        | \$ 11,335         | \$ 58,214         | \$ 78,698 | \$ (63,930)                          |
| <b>Three Months Ended June 30, 2017</b>       |                           |                 |                   |                   |           |                                      |
| Balance at beginning of period                | \$ 10,637                 | \$ 18,601       | \$ —              | \$ 25,000         | \$ 54,238 | \$ (125,544)                         |
| Total gains or (losses) (realized/unrealized) |                           |                 |                   |                   |           |                                      |
| Included in earnings (2)                      | 3,072                     | 636             | —                 | —                 | 3,708     | (3,441)                              |
| Included in other comprehensive income        | —                         | —               | —                 | —                 | —         | —                                    |
| Purchases, issuances, sales and settlements   |                           |                 |                   |                   |           |                                      |
| Purchases                                     | —                         | 4,935           | —                 | —                 | 4,935     | —                                    |
| Issuances                                     | —                         | —               | —                 | —                 | —         | —                                    |
| Sales                                         | (13,640)                  | (12,602)        | —                 | —                 | (26,242)  | —                                    |
| Settlements                                   | (69)                      | —               | —                 | —                 | (69)      | 71,739                               |
| Transfers in and/or out of Level 3            | —                         | —               | —                 | —                 | —         | —                                    |
| Balance at end of period                      | \$ —                      | \$ 11,570       | \$ —              | \$ 25,000         | \$ 36,570 | \$ (57,246)                          |
| <b>Six Months Ended June 30, 2018</b>         |                           |                 |                   |                   |           |                                      |
| Balance at beginning of year                  | \$ 5,927                  | \$ 9,460        | \$ 12,217         | \$ 59,167         | \$ 86,771 | \$ (60,996)                          |
| Total gains or (losses) (realized/unrealized) |                           |                 |                   |                   |           |                                      |
| Included in earnings (2)                      | 4                         | —               | (612)             | (379)             | (987)     | (2,934)                              |
| Included in other comprehensive income        | (8)                       | (168)           | —                 | —                 | (176)     | —                                    |
| Purchases, issuances, sales and settlements   |                           |                 |                   |                   |           |                                      |
| Purchases                                     | —                         | 393             | —                 | —                 | 393       | —                                    |
| Issuances                                     | —                         | —               | —                 | —                 | —         | —                                    |
| Sales                                         | (5,003)                   | —               | —                 | (74)              | (5,077)   | —                                    |
| Settlements                                   | (544)                     | (912)           | (270)             | (500)             | (2,226)   | —                                    |
| Transfers in and/or out of Level 3            | —                         | —               | —                 | —                 | —         | —                                    |
| Balance at end of period                      | \$ 376                    | \$ 8,773        | \$ 11,335         | \$ 58,214         | \$ 78,698 | \$ (63,930)                          |
| <b>Six Months Ended June 30, 2017</b>         |                           |                 |                   |                   |           |                                      |
| Balance at beginning of year                  | \$ 11,289                 | \$ 18,344       | \$ —              | \$ 25,000         | \$ 54,633 | \$ (122,350)                         |
| Total gains or (losses) (realized/unrealized) |                           |                 |                   |                   |           |                                      |
| Included in earnings (2)                      | 3,779                     | 893             | —                 | —                 | 4,672     | (7,087)                              |
| Included in other comprehensive income        | —                         | —               | —                 | —                 | —         | —                                    |
| Purchases, issuances, sales and settlements   |                           |                 |                   |                   |           |                                      |
| Purchases                                     | —                         | 4,935           | —                 | —                 | 4,935     | —                                    |

|                                    |             |                  |             |                  |                  |                    |
|------------------------------------|-------------|------------------|-------------|------------------|------------------|--------------------|
| Issuances                          | —           | —                | —           | —                | —                | —                  |
| Sales                              | (13,640)    | (12,602)         | —           | —                | (26,242)         | —                  |
| Settlements                        | (1,428)     | —                | —           | —                | (1,428)          | 72,191             |
| Transfers in and/or out of Level 3 | —           | —                | —           | —                | —                | —                  |
| Balance at end of period           | <u>\$ —</u> | <u>\$ 11,570</u> | <u>\$ —</u> | <u>\$ 25,000</u> | <u>\$ 36,570</u> | <u>\$ (57,246)</u> |

(1) Includes asset backed securities, mortgage backed securities and commercial mortgage backed securities.

(2) Gains or losses were included in net realized gains (losses).

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

**Financial Instruments Disclosed, But Not Carried, At Fair Value**

The Company uses various financial instruments in the normal course of its business. The carrying values of cash, accrued investment income, receivable for securities sold, certain other assets, payable for securities purchased and certain other liabilities approximated their fair values at June 30, 2018, due to their respective short maturities. As these financial instruments are not actively traded, their respective fair values are classified within Level 2.

At June 30, 2018, the Company's senior notes were carried at their cost, net of debt issuance costs, of \$1.73 billion and had a fair value of \$1.89 billion. At December 31, 2017, Company's senior notes were carried at their cost, net of debt issuance costs, of \$1.73 billion and had a fair value of \$2.04 billion. The fair values of the senior notes were obtained from a third party pricing service and are based on observable market inputs. As such, the fair values of the senior notes are classified within Level 2.

## 9. Derivative Instruments

The Company's investment strategy allows for the use of derivative instruments. The Company's derivative instruments are recorded on its consolidated balance sheets at fair value. The Company utilizes exchange traded U.S. Treasury note, Eurodollar and other futures contracts and commodity futures to manage portfolio duration or replicate investment positions in its portfolios and the Company routinely utilizes foreign currency forward contracts, currency options, index futures contracts and other derivatives as part of its total return objective. In addition, certain of the Company's investments are managed in portfolios which incorporate the use of foreign currency forward contracts which are intended to provide an economic hedge against foreign currency movements.

In addition, the Company purchases to-be-announced mortgage backed securities ("TBAs") as part of its investment strategy. TBAs represent commitments to purchase a future issuance of agency mortgage backed securities. For the period between purchase of a TBA and issuance of the underlying security, the Company's position is accounted for as a derivative. The Company purchases TBAs in both long and short positions to enhance investment performance and as part of its overall investment strategy.

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

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

- (1) Represents the absolute notional value of all outstanding contracts, consisting of long and short positions.
- (2) The fair value of asset derivatives are included in 'other assets' and the fair value of liability derivatives are included in 'other liabilities.'
- (3) The fair value of TBAs are included in 'fixed maturities available for sale, at fair value.'

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

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

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

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

remaining derivatives included in the preceding table were not subject to a master netting agreement.

Realized and unrealized contract gains and losses on the Company's derivative instruments are reflected in 'net realized gains (losses)' in the consolidated statements of income, as summarized in the following table:

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

## 10. Commitments and Contingencies

### Investment Commitments

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

### Interest Paid

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

## 11. Variable Interest Entities and Noncontrolling Interests

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

### Watford Holdings Ltd.

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

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

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

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

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

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

*Non-redeemable noncontrolling interests*

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

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

|                                                                     | June 30,<br>2018 | 2017       |
|---------------------------------------------------------------------|------------------|------------|
| <b>Three Months Ended</b>                                           |                  |            |
| Balance, beginning of period                                        | \$ 854,112       | \$ 868,186 |
| Amounts attributable to noncontrolling interests                    | 8,116            | 9,346      |
| Other comprehensive income attributable to noncontrolling interests | (1,075)          | (76)       |
| Balance, end of period                                              | \$ 861,153       | \$ 877,456 |
| <b>Six Months Ended</b>                                             |                  |            |
| Balance, beginning of year                                          | \$ 843,411       | \$ 851,854 |
| Amounts attributable to noncontrolling interests                    | 19,492           | 25,670     |
| Other comprehensive income attributable to noncontrolling interests | (1,750)          | (68)       |
| Balance, end of period                                              | \$ 861,153       | \$ 877,456 |

*Redeemable noncontrolling interests*

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

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

|                                              | June 30,<br>2018 | 2017       |
|----------------------------------------------|------------------|------------|
| <b>Three Months Ended</b>                    |                  |            |
| Balance, beginning of period                 | \$ 206,013       | \$ 205,644 |
| Accretion of preference share issuance costs | 92               | 92         |
| Balance, end of period                       | \$ 206,105       | \$ 205,736 |
| <b>Six Months Ended</b>                      |                  |            |
| Balance, beginning of year                   | \$ 205,922       | \$ 205,553 |
| Accretion of preference share issuance costs | 183              | 183        |
| Balance, end of period                       | \$ 206,105       | \$ 205,736 |

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

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

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

**Bellemeade Re**

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

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

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

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

## 12. Other Comprehensive Income (Loss)

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

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

|                                                            |                                                                                                   | Before Tax<br>Amount | Tax Expense<br>(Benefit) | Net of Tax<br>Amount |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------|--------------------------|----------------------|
| <b>Three Months Ended June 30, 2018</b>                    |                                                                                                   |                      |                          |                      |
| Unrealized appreciation (decline) in value of investments: |                                                                                                   |                      |                          |                      |
|                                                            | Unrealized holding gains (losses) arising during period                                           | \$ (88,034)          | \$ (2,763)               | \$ (85,271)          |
|                                                            | Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss) | —                    | —                        | —                    |
|                                                            | Less reclassification of net realized gains (losses) included in net income                       | (39,405)             | (2,762)                  | (36,643)             |
|                                                            | Foreign currency translation adjustments                                                          | (12,701)             | (106)                    | (12,595)             |
|                                                            | Other comprehensive income (loss)                                                                 | \$ (61,330)          | \$ (107)                 | \$ (61,223)          |

|                                                            |                                                                                                   |            |           |           |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------|-----------|-----------|
| <b>Three Months Ended June 30, 2017</b>                    |                                                                                                   |            |           |           |
| Unrealized appreciation (decline) in value of investments: |                                                                                                   |            |           |           |
|                                                            | Unrealized holding gains (losses) arising during period                                           | \$ 108,011 | \$ 15,042 | \$ 92,969 |
|                                                            | Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss) | —          | —         | —         |
|                                                            | Less reclassification of net realized gains (losses) included in net income                       | 22,381     | 5,157     | 17,224    |
|                                                            | Foreign currency translation adjustments                                                          | 18,509     | 212       | 18,297    |
|                                                            | Other comprehensive income (loss)                                                                 | \$ 104,139 | \$ 10,097 | \$ 94,042 |

|                                                            |                                                                                                   |              |             |              |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------|-------------|--------------|
| <b>Six Months Ended June 30, 2018</b>                      |                                                                                                   |              |             |              |
| Unrealized appreciation (decline) in value of investments: |                                                                                                   |              |             |              |
|                                                            | Unrealized holding gains (losses) arising during period                                           | \$ (277,977) | \$ (26,029) | \$ (251,948) |
|                                                            | Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss) | —            | —           | —            |
|                                                            | Less reclassification of net realized gains (losses) included in net income                       | (107,153)    | (8,049)     | (99,104)     |
|                                                            | Foreign currency translation adjustments                                                          | (11,269)     | 44          | (11,313)     |
|                                                            | Other comprehensive income (loss)                                                                 | \$ (182,093) | \$ (17,936) | \$ (164,157) |

|                                                            |                                                                                                   |            |           |            |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------|-----------|------------|
| <b>Six Months Ended June 30, 2017</b>                      |                                                                                                   |            |           |            |
| Unrealized appreciation (decline) in value of investments: |                                                                                                   |            |           |            |
|                                                            | Unrealized holding gains (losses) arising during period                                           | \$ 219,483 | \$ 25,722 | \$ 193,761 |
|                                                            | Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss) | —          | —         | —          |
|                                                            | Less reclassification of net realized gains (losses) included in net income                       | 28,387     | 6,119     | 22,268     |
|                                                            | Foreign currency translation adjustments                                                          | 21,674     | 253       | 21,421     |
|                                                            | Other comprehensive income (loss)                                                                 | \$ 212,770 | \$ 19,856 | \$ 192,914 |

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

### 13. Guarantor Financial Information

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

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

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

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

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

| Condensed Consolidating Statement of Income and Comprehensive Income                  | Three Months Ended June 30, 2018 |                               |                                 |                                            |                           |
|---------------------------------------------------------------------------------------|----------------------------------|-------------------------------|---------------------------------|--------------------------------------------|---------------------------|
|                                                                                       | Arch Capital (Parent Guarantor)  | Arch-U.S. (Subsidiary Issuer) | Other Arch Capital Subsidiaries | Consolidating Adjustments and Eliminations | Arch Capital Consolidated |
| <b>Revenues</b>                                                                       |                                  |                               |                                 |                                            |                           |
| Net premiums earned                                                                   | \$ —                             | \$ —                          | \$ 1,336,763                    | \$ —                                       | \$ 1,336,763              |
| Net investment income                                                                 | 15                               | 560                           | 157,532                         | (22,439)                                   | 135,668                   |
| Net realized gains (losses)                                                           | —                                | —                             | (76,611)                        | —                                          | (76,611)                  |
| Net impairment losses recognized in earnings                                          | —                                | —                             | (470)                           | —                                          | (470)                     |
| Other underwriting income                                                             | —                                | —                             | 3,874                           | —                                          | 3,874                     |
| Equity in net income (loss) of investment funds accounted for using the equity method | —                                | —                             | 8,472                           | —                                          | 8,472                     |
| Other income (loss)                                                                   | 2,339                            | —                             | 774                             | —                                          | 3,113                     |
| Total revenues                                                                        | 2,354                            | 560                           | 1,430,334                       | (22,439)                                   | 1,410,809                 |
| <b>Expenses</b>                                                                       |                                  |                               |                                 |                                            |                           |
| Losses and loss adjustment expenses                                                   | —                                | —                             | 726,153                         | —                                          | 726,153                   |
| Acquisition expenses                                                                  | —                                | —                             | 202,838                         | —                                          | 202,838                   |
| Other operating expenses                                                              | —                                | —                             | 176,181                         | —                                          | 176,181                   |
| Corporate expenses                                                                    | 16,642                           | 470                           | 5,400                           | —                                          | 22,512                    |
| Amortization of intangible assets                                                     | —                                | —                             | 26,472                          | —                                          | 26,472                    |
| Interest expense                                                                      | 5,537                            | 12,013                        | 34,911                          | (22,117)                                   | 30,344                    |
| Net foreign exchange (gains) losses                                                   | —                                | —                             | (43,357)                        | (10,349)                                   | (53,706)                  |
| Total expenses                                                                        | 22,179                           | 12,483                        | 1,128,598                       | (32,466)                                   | 1,130,794                 |
| <b>Income (loss) before income taxes</b>                                              | (19,825)                         | (11,923)                      | 301,736                         | 10,027                                     | 280,015                   |
| Income tax (expense) benefit                                                          | —                                | 2,477                         | (26,145)                        | —                                          | (23,668)                  |
| <b>Income (loss) before equity in net income of subsidiaries</b>                      | (19,825)                         | (9,446)                       | 275,591                         | 10,027                                     | 256,347                   |
| Equity in net income of subsidiaries                                                  | 263,471                          | 86,727                        | —                               | (350,198)                                  | —                         |
| <b>Net income</b>                                                                     | 243,646                          | 77,281                        | 275,591                         | (340,171)                                  | 256,347                   |
| Net (income) loss attributable to noncontrolling interests                            | —                                | —                             | (13,023)                        | 322                                        | (12,701)                  |
| <b>Net income available to Arch</b>                                                   | 243,646                          | 77,281                        | 262,568                         | (339,849)                                  | 243,646                   |
| Preferred dividends                                                                   | (10,403)                         | —                             | —                               | —                                          | (10,403)                  |
| <b>Net income available to Arch common shareholders</b>                               | \$ 233,243                       | \$ 77,281                     | \$ 262,568                      | \$ (339,849)                               | \$ 233,243                |
| <b>Comprehensive income available to Arch</b>                                         | \$ 183,500                       | \$ 70,066                     | \$ 212,802                      | \$ (282,868)                               | \$ 183,500                |

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

| Condensed Consolidating Statement of Income and Comprehensive Income                  | Three Months Ended June 30, 2017 |                               |                                 |                                            |                           |
|---------------------------------------------------------------------------------------|----------------------------------|-------------------------------|---------------------------------|--------------------------------------------|---------------------------|
|                                                                                       | Arch Capital (Parent Guarantor)  | Arch-U.S. (Subsidiary Issuer) | Other Arch Capital Subsidiaries | Consolidating Adjustments and Eliminations | Arch Capital Consolidated |
| <b>Revenues</b>                                                                       |                                  |                               |                                 |                                            |                           |
| Net premiums earned                                                                   | \$ —                             | \$ —                          | \$ 1,240,874                    | \$ —                                       | \$ 1,240,874              |
| Net investment income                                                                 | 1                                | 184                           | 133,627                         | (22,688)                                   | 111,124                   |
| Net realized gains (losses)                                                           | —                                | —                             | 21,735                          | —                                          | 21,735                    |
| Net impairment losses recognized in earnings                                          | —                                | —                             | (1,730)                         | —                                          | (1,730)                   |
| Other underwriting income                                                             | —                                | —                             | 4,822                           | —                                          | 4,822                     |
| Equity in net income (loss) of investment funds accounted for using the equity method | —                                | —                             | 32,706                          | —                                          | 32,706                    |
| Other income (loss)                                                                   | (437)                            | —                             | (1,557)                         | —                                          | (1,994)                   |
| <b>Total revenues</b>                                                                 | <b>(436)</b>                     | <b>184</b>                    | <b>1,430,477</b>                | <b>(22,688)</b>                            | <b>1,407,537</b>          |
| <b>Expenses</b>                                                                       |                                  |                               |                                 |                                            |                           |
| Losses and loss adjustment expenses                                                   | —                                | —                             | 689,860                         | —                                          | 689,860                   |
| Acquisition expenses                                                                  | —                                | —                             | 190,436                         | —                                          | 190,436                   |
| Other operating expenses                                                              | —                                | —                             | 169,981                         | —                                          | 169,981                   |
| Corporate expenses                                                                    | 21,816                           | 1,309                         | 1,751                           | —                                          | 24,876                    |
| Amortization of intangible assets                                                     | —                                | —                             | 30,824                          | —                                          | 30,824                    |
| Interest expense                                                                      | 6,075                            | 11,989                        | 33,050                          | (22,365)                                   | 28,749                    |
| Net foreign exchange (gains) losses                                                   | —                                | —                             | 29,843                          | 9,700                                      | 39,543                    |
| <b>Total expenses</b>                                                                 | <b>27,891</b>                    | <b>13,298</b>                 | <b>1,145,745</b>                | <b>(12,665)</b>                            | <b>1,174,269</b>          |
| <b>Income (loss) before income taxes</b>                                              | <b>(28,327)</b>                  | <b>(13,114)</b>               | <b>284,732</b>                  | <b>(10,023)</b>                            | <b>233,268</b>            |
| Income tax (expense) benefit                                                          | —                                | 4,069                         | (38,238)                        | —                                          | (34,169)                  |
| <b>Income (loss) before equity in net income of subsidiaries</b>                      | <b>(28,327)</b>                  | <b>(9,045)</b>                | <b>246,494</b>                  | <b>(10,023)</b>                            | <b>199,099</b>            |
| Equity in net income of subsidiaries                                                  | 213,494                          | 86,156                        | —                               | (299,650)                                  | —                         |
| <b>Net income</b>                                                                     | <b>185,167</b>                   | <b>77,111</b>                 | <b>246,494</b>                  | <b>(309,673)</b>                           | <b>199,099</b>            |
| Net (income) loss attributable to noncontrolling interests                            | —                                | —                             | (14,254)                        | 322                                        | (13,932)                  |
| <b>Net income available to Arch</b>                                                   | <b>185,167</b>                   | <b>77,111</b>                 | <b>232,240</b>                  | <b>(309,351)</b>                           | <b>185,167</b>            |
| Preferred dividends                                                                   | (11,349)                         | —                             | —                               | —                                          | (11,349)                  |
| <b>Net income available to Arch common shareholders</b>                               | <b>\$ 173,818</b>                | <b>\$ 77,111</b>              | <b>\$ 232,240</b>               | <b>\$ (309,351)</b>                        | <b>\$ 173,818</b>         |
| <b>Comprehensive income available to Arch</b>                                         | <b>\$ 279,285</b>                | <b>\$ 105,302</b>             | <b>\$ 475,747</b>               | <b>\$ (581,049)</b>                        | <b>\$ 279,285</b>         |

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

|                                                                                       | Six Months Ended June 30, 2018         |                                      |                                        |                                                   |                                  |
|---------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------|----------------------------------------|---------------------------------------------------|----------------------------------|
| <b>Condensed Consolidating Statement of Income and Comprehensive Income</b>           | <b>Arch Capital (Parent Guarantor)</b> | <b>Arch-U.S. (Subsidiary Issuer)</b> | <b>Other Arch Capital Subsidiaries</b> | <b>Consolidating Adjustments and Eliminations</b> | <b>Arch Capital Consolidated</b> |
| <b>Revenues</b>                                                                       |                                        |                                      |                                        |                                                   |                                  |
| Net premiums earned                                                                   | \$ —                                   | \$ —                                 | \$ 2,571,662                           | \$ —                                              | \$ 2,571,662                     |
| Net investment income                                                                 | 35                                     | 818                                  | 306,299                                | (44,760)                                          | 262,392                          |
| Net realized gains (losses)                                                           | 29                                     | (7)                                  | (187,631)                              | —                                                 | (187,609)                        |
| Net impairment losses recognized in earnings                                          | —                                      | —                                    | (632)                                  | —                                                 | (632)                            |
| Other underwriting income                                                             | —                                      | —                                    | 9,223                                  | —                                                 | 9,223                            |
| Equity in net income (loss) of investment funds accounted for using the equity method | —                                      | —                                    | 36,541                                 | —                                                 | 36,541                           |
| Other income (loss)                                                                   | 2,261                                  | —                                    | 926                                    | —                                                 | 3,187                            |
| <b>Total revenues</b>                                                                 | <b>2,325</b>                           | <b>811</b>                           | <b>2,736,388</b>                       | <b>(44,760)</b>                                   | <b>2,694,764</b>                 |
| <b>Expenses</b>                                                                       |                                        |                                      |                                        |                                                   |                                  |
| Losses and loss adjustment expenses                                                   | —                                      | —                                    | 1,363,013                              | —                                                 | 1,363,013                        |
| Acquisition expenses                                                                  | —                                      | —                                    | 394,214                                | —                                                 | 394,214                          |
| Other operating expenses                                                              | —                                      | —                                    | 351,196                                | —                                                 | 351,196                          |
| Corporate expenses                                                                    | 32,811                                 | 759                                  | 4,254                                  | —                                                 | 37,824                           |
| Amortization of intangible assets                                                     | —                                      | —                                    | 53,208                                 | —                                                 | 53,208                           |
| Interest expense                                                                      | 11,073                                 | 23,939                               | 70,083                                 | (44,115)                                          | 60,980                           |
| Net foreign exchange (gains) losses                                                   | 29                                     | —                                    | (26,921)                               | (7,093)                                           | (33,985)                         |
| <b>Total expenses</b>                                                                 | <b>43,913</b>                          | <b>24,698</b>                        | <b>2,209,047</b>                       | <b>(51,208)</b>                                   | <b>2,226,450</b>                 |
| <b>Income (loss) before income taxes</b>                                              | <b>(41,588)</b>                        | <b>(23,887)</b>                      | <b>527,341</b>                         | <b>6,448</b>                                      | <b>468,314</b>                   |
| Income tax (expense) benefit                                                          | —                                      | 5,428                                | (51,011)                               | —                                                 | (45,583)                         |
| <b>Income (loss) before equity in net income of subsidiaries</b>                      | <b>(41,588)</b>                        | <b>(18,459)</b>                      | <b>476,330</b>                         | <b>6,448</b>                                      | <b>422,731</b>                   |
| Equity in net income of subsidiaries                                                  | 435,657                                | 173,147                              | —                                      | (608,804)                                         | —                                |
| <b>Net income</b>                                                                     | <b>394,069</b>                         | <b>154,688</b>                       | <b>476,330</b>                         | <b>(602,356)</b>                                  | <b>422,731</b>                   |
| Net (income) loss attributable to noncontrolling interests                            | —                                      | —                                    | (29,307)                               | 645                                               | (28,662)                         |
| <b>Net income available to Arch</b>                                                   | <b>394,069</b>                         | <b>154,688</b>                       | <b>447,023</b>                         | <b>(601,711)</b>                                  | <b>394,069</b>                   |
| Preferred dividends                                                                   | (20,840)                               | —                                    | —                                      | —                                                 | (20,840)                         |
| Loss on redemption of preferred shares                                                | (2,710)                                | —                                    | —                                      | —                                                 | (2,710)                          |
| <b>Net income available to Arch common shareholders</b>                               | <b>\$ 370,519</b>                      | <b>\$ 154,688</b>                    | <b>\$ 447,023</b>                      | <b>\$ (601,711)</b>                               | <b>\$ 370,519</b>                |
| <b>Comprehensive income available to Arch</b>                                         | <b>\$ 231,662</b>                      | <b>\$ 76,603</b>                     | <b>\$ 291,883</b>                      | <b>\$ (368,486)</b>                               | <b>\$ 231,662</b>                |

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

|                                                                                       | Six Months Ended June 30, 2017         |                                      |                                        |                                                   |                                  |
|---------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------|----------------------------------------|---------------------------------------------------|----------------------------------|
| <b>Condensed Consolidating Statement of Income and Comprehensive Income</b>           | <b>Arch Capital (Parent Guarantor)</b> | <b>Arch-U.S. (Subsidiary Issuer)</b> | <b>Other Arch Capital Subsidiaries</b> | <b>Consolidating Adjustments and Eliminations</b> | <b>Arch Capital Consolidated</b> |
| <b>Revenues</b>                                                                       |                                        |                                      |                                        |                                                   |                                  |
| Net premiums earned                                                                   | \$ —                                   | \$ —                                 | \$ 2,357,891                           | \$ —                                              | \$ 2,357,891                     |
| Net investment income                                                                 | 6                                      | 1,000                                | 271,608                                | (43,616)                                          | 228,998                          |
| Net realized gains (losses)                                                           | —                                      | —                                    | 55,888                                 | —                                                 | 55,888                           |
| Net impairment losses recognized in earnings                                          | —                                      | —                                    | (3,537)                                | —                                                 | (3,537)                          |
| Other underwriting income                                                             | —                                      | —                                    | 9,455                                  | —                                                 | 9,455                            |
| Equity in net income (loss) of investment funds accounted for using the equity method | —                                      | —                                    | 80,794                                 | —                                                 | 80,794                           |
| Other income (loss)                                                                   | (266)                                  | —                                    | (2,510)                                | —                                                 | (2,776)                          |
| <b>Total revenues</b>                                                                 | <b>(260)</b>                           | <b>1,000</b>                         | <b>2,769,589</b>                       | <b>(43,616)</b>                                   | <b>2,726,713</b>                 |
| <b>Expenses</b>                                                                       |                                        |                                      |                                        |                                                   |                                  |
| Losses and loss adjustment expenses                                                   | —                                      | —                                    | 1,242,430                              | —                                                 | 1,242,430                        |
| Acquisition expenses                                                                  | —                                      | —                                    | 372,725                                | —                                                 | 372,725                          |
| Other operating expenses                                                              | —                                      | —                                    | 344,700                                | —                                                 | 344,700                          |
| Corporate expenses                                                                    | 39,063                                 | 3,317                                | 10,288                                 | —                                                 | 52,668                           |
| Amortization of intangible assets                                                     | —                                      | —                                    | 62,118                                 | —                                                 | 62,118                           |
| Interest expense                                                                      | 12,090                                 | 23,919                               | 64,386                                 | (42,970)                                          | 57,425                           |
| Net foreign exchange (gains) losses                                                   | —                                      | —                                    | 45,191                                 | 13,756                                            | 58,947                           |
| <b>Total expenses</b>                                                                 | <b>51,153</b>                          | <b>27,236</b>                        | <b>2,141,838</b>                       | <b>(29,214)</b>                                   | <b>2,191,013</b>                 |
| <b>Income (loss) before income taxes</b>                                              | <b>(51,413)</b>                        | <b>(26,236)</b>                      | <b>627,751</b>                         | <b>(14,402)</b>                                   | <b>535,700</b>                   |
| Income tax (expense) benefit                                                          | —                                      | 8,942                                | (71,508)                               | —                                                 | (62,566)                         |
| <b>Income (loss) before equity in net income of subsidiaries</b>                      | <b>(51,413)</b>                        | <b>(17,294)</b>                      | <b>556,243</b>                         | <b>(14,402)</b>                                   | <b>473,134</b>                   |
| Equity in net income of subsidiaries                                                  | 489,707                                | 163,529                              | —                                      | (653,236)                                         | —                                |
| <b>Net income</b>                                                                     | <b>438,294</b>                         | <b>146,235</b>                       | <b>556,243</b>                         | <b>(667,638)</b>                                  | <b>473,134</b>                   |
| Net (income) loss attributable to noncontrolling interests                            | —                                      | —                                    | (35,485)                               | 645                                               | (34,840)                         |
| <b>Net income available to Arch</b>                                                   | <b>438,294</b>                         | <b>146,235</b>                       | <b>520,758</b>                         | <b>(666,993)</b>                                  | <b>438,294</b>                   |
| Preferred dividends                                                                   | (22,567)                               | —                                    | —                                      | —                                                 | (22,567)                         |
| <b>Net income available to Arch common shareholders</b>                               | <b>\$ 415,727</b>                      | <b>\$ 146,235</b>                    | <b>\$ 520,758</b>                      | <b>\$ (666,993)</b>                               | <b>\$ 415,727</b>                |
| <b>Comprehensive income available to Arch</b>                                         | <b>\$ 631,276</b>                      | <b>\$ 193,083</b>                    | <b>\$ 699,920</b>                      | <b>\$ (893,003)</b>                               | <b>\$ 631,276</b>                |

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

| Condensed Consolidating Statement<br>of Cash Flows                             | Six Months Ended June 30, 2018     |                                  |                                    |                                                  |                              |
|--------------------------------------------------------------------------------|------------------------------------|----------------------------------|------------------------------------|--------------------------------------------------|------------------------------|
|                                                                                | Arch Capital (Parent<br>Guarantor) | Arch-U.S. (Subsidiary<br>Issuer) | Other Arch Capital<br>Subsidiaries | Consolidating<br>Adjustments and<br>Eliminations | Arch Capital<br>Consolidated |
| <b>Operating Activities</b>                                                    |                                    |                                  |                                    |                                                  |                              |
| Net Cash Provided By (Used For) Operating Activities                           | \$ 201,487                         | \$ 149,576                       | \$ 1,010,703                       | \$ (864,880)                                     | \$ 496,886                   |
| <b>Investing Activities</b>                                                    |                                    |                                  |                                    |                                                  |                              |
| Purchases of fixed maturity investments                                        | —                                  | (125,440)                        | (17,347,846)                       | 605,716                                          | (16,867,570)                 |
| Purchases of equity securities                                                 | —                                  | —                                | (679,663)                          | —                                                | (679,663)                    |
| Purchases of other investments                                                 | —                                  | —                                | (1,017,147)                        | —                                                | (1,017,147)                  |
| Proceeds from the sales of fixed maturity investments                          | —                                  | 33,793                           | 16,662,466                         | (605,716)                                        | 16,090,543                   |
| Proceeds from the sales of equity securities                                   | —                                  | —                                | 622,068                            | —                                                | 622,068                      |
| Proceeds from the sales, redemptions and maturities of other investments       | —                                  | —                                | 773,298                            | —                                                | 773,298                      |
| Proceeds from redemptions and maturities of fixed maturity investments         | —                                  | —                                | 511,448                            | —                                                | 511,448                      |
| Net settlements of derivative instruments                                      | —                                  | —                                | 4,498                              | —                                                | 4,498                        |
| Net (purchases) sales of short-term investments                                | 96,446                             | (59,798)                         | 415,253                            | —                                                | 451,901                      |
| Change in cash collateral related to securities lending                        | —                                  | —                                | 176,304                            | —                                                | 176,304                      |
| Contributions to subsidiaries                                                  | —                                  | (1,000)                          | (22,595)                           | 23,595                                           | —                            |
| Purchases of fixed assets                                                      | (71)                               | —                                | (13,171)                           | —                                                | (13,242)                     |
| Other                                                                          | (4)                                | —                                | 49,965                             | —                                                | 49,961                       |
| Net Cash Provided By (Used For) Investing Activities                           | 96,371                             | (152,445)                        | 134,878                            | 23,595                                           | 102,399                      |
| <b>Financing Activities</b>                                                    |                                    |                                  |                                    |                                                  |                              |
| Redemption of preferred shares                                                 | (92,555)                           | —                                | —                                  | —                                                | (92,555)                     |
| Purchases of common shares under share repurchase program                      | (173,575)                          | —                                | —                                  | —                                                | (173,575)                    |
| Proceeds from common shares issued, net                                        | (13,851)                           | —                                | 23,595                             | (23,595)                                         | (13,851)                     |
| Proceeds from borrowings                                                       | —                                  | —                                | 130,579                            | —                                                | 130,579                      |
| Repayments of borrowings                                                       | —                                  | —                                | (373,000)                          | —                                                | (373,000)                    |
| Change in cash collateral related to securities lending                        | —                                  | —                                | (176,304)                          | —                                                | (176,304)                    |
| Dividends paid to redeemable noncontrolling interests                          | —                                  | —                                | (9,632)                            | 638                                              | (8,994)                      |
| Dividends paid to parent (1)                                                   | —                                  | —                                | (864,242)                          | 864,242                                          | —                            |
| Other                                                                          | —                                  | —                                | (4,489)                            | —                                                | (4,489)                      |
| Preferred dividends paid                                                       | (20,840)                           | —                                | —                                  | —                                                | (20,840)                     |
| Net Cash Provided By (Used For) Financing Activities                           | (300,821)                          | —                                | (1,273,493)                        | 841,285                                          | (733,029)                    |
| Effects of exchange rates changes on foreign currency cash and restricted cash | —                                  | —                                | (10,431)                           | —                                                | (10,431)                     |
| Increase (decrease) in cash and restricted cash                                | (2,963)                            | (2,869)                          | (138,343)                          | —                                                | (144,175)                    |
| Cash and restricted cash, beginning of year                                    | 10,048                             | 30,380                           | 686,856                            | —                                                | 727,284                      |
| Cash and restricted cash, end of period                                        | \$ 7,085                           | \$ 27,511                        | \$ 548,513                         | \$ —                                             | \$ 583,109                   |

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

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

| Condensed Consolidating Statement<br>of Cash Flows                             | Six Months Ended June 30, 2017     |                                  |                                    |                                                  |                              |
|--------------------------------------------------------------------------------|------------------------------------|----------------------------------|------------------------------------|--------------------------------------------------|------------------------------|
|                                                                                | Arch Capital (Parent<br>Guarantor) | Arch-U.S. (Subsidiary<br>Issuer) | Other Arch Capital<br>Subsidiaries | Consolidating<br>Adjustments and<br>Eliminations | Arch Capital<br>Consolidated |
| <b>Operating Activities</b>                                                    |                                    |                                  |                                    |                                                  |                              |
| Net Cash Provided By (Used For) Operating Activities                           | \$ 7,483                           | \$ 27,853                        | \$ 956,437                         | \$ (458,238)                                     | \$ 533,535                   |
| <b>Investing Activities</b>                                                    |                                    |                                  |                                    |                                                  |                              |
| Purchases of fixed maturity investments                                        | —                                  | —                                | (19,899,326)                       | —                                                | (19,899,326)                 |
| Purchases of equity securities                                                 | —                                  | —                                | (400,155)                          | —                                                | (400,155)                    |
| Purchases of other investments                                                 | —                                  | —                                | (883,704)                          | —                                                | (883,704)                    |
| Proceeds from the sales of fixed maturity investments                          | —                                  | —                                | 19,611,680                         | —                                                | 19,611,680                   |
| Proceeds from the sales of equity securities                                   | —                                  | —                                | 473,064                            | —                                                | 473,064                      |
| Proceeds from the sales, redemptions and maturities of other investments       | —                                  | —                                | 614,494                            | —                                                | 614,494                      |
| Proceeds from redemptions and maturities of fixed maturity investments         | —                                  | —                                | 447,941                            | —                                                | 447,941                      |
| Net settlements of derivative instruments                                      | —                                  | —                                | (5,984)                            | —                                                | (5,984)                      |
| Net (purchases) sales of short-term investments                                | 2,354                              | (27,896)                         | (419,661)                          | —                                                | (445,203)                    |
| Change in cash collateral related to securities lending                        | —                                  | —                                | 175,693                            | —                                                | 175,693                      |
| Contributions to subsidiaries                                                  | 20,641                             | (72,900)                         | (342,950)                          | 395,209                                          | —                            |
| Issuance of intercompany loans                                                 | —                                  | —                                | (47,000)                           | 47,000                                           | —                            |
| Repayment of intercompany loans                                                | —                                  | 47,000                           | —                                  | (47,000)                                         | —                            |
| Purchases of fixed assets                                                      | (18)                               | (10)                             | (11,075)                           | —                                                | (11,103)                     |
| Other                                                                          | —                                  | —                                | 54,129                             | (20,641)                                         | 33,488                       |
| Net Cash Provided By (Used For) Investing Activities                           | 22,977                             | (53,806)                         | (632,854)                          | 374,568                                          | (289,115)                    |
| <b>Financing Activities</b>                                                    |                                    |                                  |                                    |                                                  |                              |
| Proceeds from common shares issued, net                                        | (6,838)                            | —                                | 395,209                            | (395,209)                                        | (6,838)                      |
| Repayments of borrowings                                                       | —                                  | —                                | (72,000)                           | —                                                | (72,000)                     |
| Change in cash collateral related to securities lending                        | —                                  | —                                | (175,693)                          | —                                                | (175,693)                    |
| Dividends paid to redeemable noncontrolling interests                          | —                                  | —                                | (9,632)                            | 638                                              | (8,994)                      |
| Dividends paid to parent (1)                                                   | —                                  | —                                | (457,600)                          | 457,600                                          | —                            |
| Other                                                                          | —                                  | —                                | (62,339)                           | 20,641                                           | (41,698)                     |
| Preferred dividends paid                                                       | (22,567)                           | —                                | —                                  | —                                                | (22,567)                     |
| Net Cash Provided By (Used For) Financing Activities                           | (29,405)                           | —                                | (382,055)                          | 83,670                                           | (327,790)                    |
| Effects of exchange rates changes on foreign currency cash and restricted cash | —                                  | —                                | 9,616                              | —                                                | 9,616                        |
| Increase (decrease) in cash and restricted cash                                | 1,055                              | (25,953)                         | (48,856)                           | —                                                | (73,754)                     |
| Cash and restricted cash, beginning of year                                    | 1,738                              | 71,955                           | 895,876                            | —                                                | 969,569                      |
| Cash and restricted cash, end of period                                        | \$ 2,793                           | \$ 46,002                        | \$ 847,020                         | \$ —                                             | \$ 895,815                   |

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

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

**14. Income Taxes**

---

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

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

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

**15. Legal Proceedings**

---

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

---

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

---

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

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

### CURRENT OUTLOOK

---

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

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

Our mortgage segment continues to experience generally favorable market conditions, albeit with pressure on pricing,

and our results reflect our success in making superior credit underwriting risk decisions and in expanding our distribution and producer relationships.

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

### FINANCIAL MEASURES

---

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

#### Book Value per Share

Book value per share represents total common shareholders’ equity available to Arch divided by the number of common shares outstanding. Management uses growth in book value per share as a key measure of the value generated for our common shareholders each period and believes that book value per share is the key driver of Arch Capital’s share price over time. Book value per share is impacted by, among other factors, our underwriting results, investment returns and share repurchase activity, which has an accretive or dilutive impact on book value per share depending on the purchase price.

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

#### Operating Return on Average Common Equity

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

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

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

### Total Return on Investments

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

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

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

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

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

The benchmark return index included weightings to the following indices, which are primarily from The Bank of America Merrill Lynch ("BoAML"):

|                                                                   | %       |
|-------------------------------------------------------------------|---------|
| BoAML 1-10 Year U.S. Corporate & All Yankees, A - AAA Rated Index | 20.00%  |
| BoAML 1-5 Year U.S. Treasury Index                                | 15.00   |
| BoAML 1-10 Year U.S. Municipal Securities Index                   | 14.50   |
| BoAML 3-5 Year Fixed Rate Asset Backed Securities Index           | 7.00    |
| Barclays CMBS Inv. Grade, AAA Rated Index                         | 5.00    |
| MSCI All Country World Gross Total Return Index                   | 5.00    |
| BoAML German Government 1-10 Year Index                           | 5.00    |
| BoAML U.S. Mortgage Backed Securities Index                       | 4.00    |
| Hedge Fund Research HFRX Fixed Income Credit Index                | 3.50    |
| Hedge Fund Research HFRX Equal Weighted Strategies                | 3.50    |
| BoAML 5-10 Year U.S. Treasury Index                               | 3.00    |
| BoAML 1-5 Year U.K. Gilt Index                                    | 3.00    |
| BoAML U.S. High Yield Constrained Index                           | 2.50    |
| BoAML 1-5 Year Australian Governments Index                       | 2.50    |
| S&P Leveraged Loan Index                                          | 2.50    |
| BoAML 0-3 Month U.S. Treasury Bill Index                          | 2.00    |
| BoAML 1-5 Year Canada Government Index                            | 1.50    |
| BoAML 20+ Year Canada Government Index                            | 0.50    |
| Total                                                             | 100.00% |

### COMMENT ON NON-GAAP FINANCIAL MEASURES

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

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

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

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

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

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

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

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

Our presentation of segment information includes the use of a current year loss ratio which excludes favorable or adverse development in prior year loss reserves. This ratio is a non-GAAP financial measure as defined in Regulation G. The reconciliation of such measure to the loss ratio (the most directly comparable GAAP financial measure) in accordance with Regulation G is shown on the individual segment pages. Management utilizes the current year loss ratio in its analysis of the underwriting performance of each of our underwriting segments.

Total return on investments includes investment income, equity in net income or loss of investment funds accounted for using the equity method, net realized gains and losses and the change in unrealized gains and losses generated by Arch’s investment portfolio. Total return is calculated on a pre-tax basis and before investment expenses, excludes amounts reflected in the ‘other’ segment, and reflects the effect of financial market conditions along with foreign currency fluctuations. In addition, total return incorporates the timing of investment returns during the periods. There is no directly comparable GAAP financial measure for total return. Management uses total return on investments as a key measure of the return generated to Arch common shareholders on the capital held in the business, and compares the return generated by our investment portfolio against benchmark returns which we measured our portfolio against during the periods.

## RESULTS OF OPERATIONS

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

|                                                                                       | Three Months Ended |              | Six Months Ended |              |
|---------------------------------------------------------------------------------------|--------------------|--------------|------------------|--------------|
|                                                                                       | June 30,           |              | June 30,         |              |
|                                                                                       | 2018               | 2017         | 2018             | 2017         |
| Net income available to Arch common shareholders                                      | \$ 233,243         | \$ 173,818   | \$ 370,519       | \$ 415,727   |
| Net realized (gains) losses                                                           | 61,426             | (18,452)     | 173,190          | (47,586)     |
| Net impairment losses recognized in earnings                                          | 470                | 1,730        | 632              | 3,537        |
| Equity in net (income) loss of investment funds accounted for using the equity method | (8,472)            | (32,706)     | (36,541)         | (80,794)     |
| Net foreign exchange (gains) losses                                                   | (47,038)           | 38,012       | (31,482)         | 57,808       |
| UGC transaction costs and other                                                       | 6,908              | 2,675        | 7,738            | 18,259       |
| Loss on redemption of preferred shares                                                | —                  | —            | 2,710            | —            |
| Income tax expense (benefit) (1)                                                      | (3,941)            | 3,842        | (9,027)          | (67)         |
| After-tax operating income available to Arch common shareholders                      | \$ 242,596         | \$ 168,919   | \$ 477,739       | \$ 366,884   |
| Beginning common shareholders’ equity                                                 | \$ 8,370,372       | \$ 7,833,289 | \$ 8,324,047     | \$ 7,481,163 |
| Ending common shareholders’ equity                                                    | 8,383,755          | 8,126,332    | 8,383,755        | 8,126,332    |
| Average common shareholders’ equity                                                   | \$ 8,377,064       | \$ 7,979,811 | \$ 8,353,901     | \$ 7,803,748 |
| Annualized return on average common equity %                                          | 11.1               | 8.7          | 8.9              | 10.7         |
| Annualized operating return on average common equity %                                | 11.6               | 8.5          | 11.4             | 9.4          |

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

## Segment Information

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

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

### Insurance Segment

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

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

  

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

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

  

| Underwriting Ratios           |       |       |                |
|-------------------------------|-------|-------|----------------|
|                               |       |       | % Point Change |
| Loss ratio                    | 65.5% | 66.8% | (1.3)          |
| Acquisition expense ratio     | 16.2% | 15.0% | 1.2            |
| Other operating expense ratio | 17.0% | 17.6% | (0.6)          |
| Combined ratio                | 98.7% | 99.4% | (0.7)          |

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

- *Construction and national accounts:* primary and excess casualty coverages to middle and large accounts in the construction industry and a wide range of products for middle and large national accounts, specializing in loss sensitive primary casualty insurance programs (including large deductible, self-insured retention and retrospectively rated programs).
- *Excess and surplus casualty:* primary and excess casualty insurance coverages, including middle market energy business, and contract binding, which primarily provides casualty coverage through a network of appointed agents to small and medium risks.
- *Lenders products:* collateral protection, debt cancellation and service contract reimbursement products to banks, credit unions, automotive dealerships and original equipment manufacturers and other specialty programs that pertain to automotive lending and leasing.
- *Professional lines:* directors’ and officers’ liability, errors and omissions liability, employment practices liability, fiduciary liability, crime, professional indemnity and other financial related coverages for corporate, private equity, venture capital, real estate investment trust, limited partnership, financial institution and not-for-profit clients of all sizes and medical professional and general liability insurance coverages for the healthcare industry. The business is predominately written on a claims-made basis.
- *Programs:* primarily package policies, underwriting workers’ compensation and umbrella liability business in support of desirable package programs, targeting program managers with unique expertise and niche products offering

general liability, commercial automobile, inland marine and property business with minimal catastrophe exposure.

- *Property, energy, marine and aviation:* primary and excess general property insurance coverages, including catastrophe-exposed property coverage, for commercial clients. Coverages for marine include hull, war, specie and liability. Aviation and stand alone terrorism are also offered.

- *Travel, accident and health:* specialty travel and accident and related insurance products for individual, group travelers, travel agents and suppliers, as well as accident and health, which provides accident, disability and medical plan insurance coverages for employer groups, medical plan members, students and other participant groups.

- *Other:* includes alternative market risks (including captive insurance programs), excess workers' compensation and employer's liability insurance coverages for qualified self-insured groups, associations and trusts, and contract and commercial surety coverages, including contract bonds (payment and performance bonds) primarily for medium and large contractors and commercial surety bonds for Fortune 1,000 companies and smaller transaction business programs.

#### Premiums Written

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

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

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

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

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

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

### Net Premiums Earned .

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

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

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

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

### Losses and Loss Adjustment Expenses .

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

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

### Current Year Loss Ratio .

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

### Prior Period Reserve Development .

The insurance segment's net favorable development was \$6.1 million , or 1.1 points, for the 2018 second quarter , compared to \$2.0 million , or 0.4 points, for the 2017 second quarter , and \$8.2 million , or 0.8 points, for the six months ended June 30, 2018 , compared to \$4.1 million , or 0.4 points, for the 2017 period. See [note 6, "Reserve for Losses and Loss Adjustment Expenses."](#) to our consolidated financial statements for information about the insurance segment's prior year reserve development.

### Underwriting Expenses .

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

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

## Reinsurance Segment

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

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

  

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

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

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

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

- *Other specialty*: provides coverage to ceding company clients for proportional motor and other lines, including surety, accident and health, workers' compensation catastrophe, agriculture, trade credit and political risk.

- *Property catastrophe*: provides protection for most catastrophic losses that are covered in the underlying policies written by reinsureds, including hurricane, earthquake, flood, tornado, hail and fire, and coverage for other perils on a case-by-case basis. Property catastrophe reinsurance provides coverage on an excess of loss basis when aggregate losses and loss adjustment expense from a single occurrence or aggregation of losses from a covered peril exceed the retention specified in the contract.

- *Property excluding property catastrophe*: provides coverage for both personal lines and commercial property exposures and principally covers buildings, structures, equipment and contents. The primary perils in this business include fire, explosion, collapse, riot, vandalism, wind, tornado, flood and earthquake. Business is assumed on both a proportional and excess of loss basis. In addition, facultative business is written which focuses on individual commercial property risks on an excess of loss basis.

- *Other*: includes life reinsurance business on both a proportional and non-proportional basis, casualty clash business and, in limited instances, non-traditional business which is intended to provide insurers with risk management solutions that complement traditional reinsurance.

### Premiums Written .

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

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

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

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

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

### Net Premiums Earned .

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

|                                         | Three Months Ended June 30, |       |            |       |
|-----------------------------------------|-----------------------------|-------|------------|-------|
|                                         | 2018                        |       | 2017       |       |
|                                         | Amount                      | %     | Amount     | %     |
| Other specialty                         | \$ 149,648                  | 44.0  | \$ 141,565 | 45.0  |
| Casualty                                | 85,009                      | 25.0  | 79,903     | 25.4  |
| Property excluding property catastrophe | 70,849                      | 20.8  | 62,884     | 20.0  |
| Marine and aviation                     | 10,089                      | 3.0   | 9,986      | 3.2   |
| Property catastrophe                    | 15,716                      | 4.6   | 15,759     | 5.0   |
| Other                                   | 9,007                       | 2.6   | 4,605      | 1.5   |
| Total                                   | \$ 340,318                  | 100.0 | \$ 314,702 | 100.0 |
| Pro rata                                | \$ 203,632                  | 59.8  | \$ 181,988 | 57.8  |
| Excess of loss                          | 136,686                     | 40.2  | 132,714    | 42.2  |
| Total                                   | \$ 340,318                  | 100.0 | \$ 314,702 | 100.0 |

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

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

### Other Underwriting Income (Loss) .

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

### Losses and Loss Adjustment Expenses .

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

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

### Current Year Loss Ratio .

The reinsurance segment's current year loss ratio in the 2018 second quarter was 1.3 points lower than in the 2017 second quarter and reflected 2.2 points of current year catastrophic activity, compared to 5.4 points in the 2017 second quarter . The 2018 second quarter loss ratio contained 9.9 points, or \$33.7 million, of property facultative loss activity, compared to 11.1 points, or \$34.8 million, in the 2017 second quarter . The balance of the change in the 2018 second quarter current year loss ratio resulted, in part, from a higher level of large attritional loss activity than in the 2017 second quarter .

The reinsurance segment's current year loss ratio for the six months ended June 30, 2018 was 2.0 points lower than in the 2017 period and reflected 1.4 points of current year catastrophic activity, compared to 4.8 points in the 2017 period. The loss ratio for the six months ended June 30, 2018 contained 7.0 points, or \$43.4 million, of property facultative loss activity, compared to 5.9 points, or \$33.1 million, in the 2017 period.

### Prior Period Reserve Development .

The reinsurance segment's net favorable development was \$33.0 million , or 9.7 points, for the 2018 second quarter , compared to \$39.5 million , or 12.6 points, for the 2017 second quarter , and \$69.6 million , or 11.2 points, for the six months ended June 30, 2018 , compared to \$96.8 million , or 17.3 points, for the 2017 period. See [note 6, "Reserve for Losses and Loss Adjustment Expenses."](#) to our consolidated financial statements for information about the reinsurance segment's prior year reserve development.

### Underwriting Expenses .

**2018 Second Quarter versus 2017 Second Quarter .** The underwriting expense ratio for the reinsurance segment was 25.2% in the 2018 second quarter , compared to 28.0% in the 2017 second quarter . The comparison of the underwriting expense ratios also reflected changes in the mix and type of business and a higher level of net premiums earned in the 2018 second quarter . The underwriting expense ratio benefited from a reduction in federal excise taxes incurred of \$2.6 million, or 0.8 points, as the reinsurance agreements between the Company's U.S.-based property casualty insurance and

reinsurance subsidiaries and Arch Reinsurance Ltd. ("Arch Re Bermuda") were canceled on a cutoff basis as of January 1, 2018.

**Six Months Ended June 30, 2018 versus 2017 period .** The underwriting expense ratio for the reinsurance segment was 27.4% for the six months ended June 30, 2018 , compared to 30.7% for the 2017 period. The comparison of the underwriting expense ratios also reflected changes in the mix and type of business and a higher level of net premiums earned for the 2018 period. The underwriting expense ratio benefited from a reduction in federal excise taxes incurred of \$5.1 million, or 0.8 points, as discussed above.

### Mortgage Segment

Our mortgage operations include U.S. and international mortgage insurance and reinsurance operations as well as GSE credit risk sharing transactions. Our mortgage group includes direct mortgage insurance in the U.S. primarily provided by Arch Mortgage Insurance Company and United Guaranty Residential Insurance Company (together, "Arch MI U.S."), as well as through Arch Mortgage Guaranty Company; mortgage reinsurance by Arch Re Bermuda to mortgage insurers on both a proportional and non-proportional basis globally; direct mortgage insurance in Europe provided by Arch MI Europe and in Hong Kong by Arch MI Asia; and various GSE credit risk sharing products provided primarily by Arch Re Bermuda.

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

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

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

#### Premiums Written .

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

|                               | Three Months Ended June 30, |       |            |       |
|-------------------------------|-----------------------------|-------|------------|-------|
|                               | 2018                        |       | 2017       |       |
|                               | Amount                      | %     | Amount     | %     |
| <b>Client location:</b>       |                             |       |            |       |
| United States                 | \$ 254,966                  | 91.0  | \$ 253,456 | 92.5  |
| Other                         | 25,157                      | 9.0   | 20,456     | 7.5   |
| Total                         | \$ 280,123                  | 100.0 | \$ 273,912 | 100.0 |
| <b>Underwriting location:</b> |                             |       |            |       |
| United States                 | \$ 229,715                  | 82.0  | \$ 227,266 | 83.0  |
| Other                         | 50,408                      | 18.0  | 46,646     | 17.0  |
| Total                         | \$ 280,123                  | 100.0 | \$ 273,912 | 100.0 |

*2018 Second Quarter versus 2017 Second Quarter* . Gross premiums written by the mortgage segment in the 2018 second quarter were 1.6% lower than in the 2017 second quarter . The reduction in gross premiums written primarily reflected a lower level of Australian mortgage reinsurance business and a lower level of U.S. single premium business. Net premiums written for the 2018 second quarter were 2.3% higher than in the 2017 second quarter and reflected a declining cession to AIG on the 50% quota share reinsurance agreement covering 2014 to 2016 policy years of UGC business on a run-off basis, while the 2017 second quarter also reflected higher retrocessions of Australian mortgage reinsurance business.

|                               | Six Months Ended June 30, |       |            |       |
|-------------------------------|---------------------------|-------|------------|-------|
|                               | 2018                      |       | 2017       |       |
|                               | Amount                    | %     | Amount     | %     |
| <b>Client location:</b>       |                           |       |            |       |
| United States                 | \$ 501,514                | 90.3  | \$ 494,592 | 90.2  |
| Other                         | 53,650                    | 9.7   | 54,018     | 9.8   |
| Total                         | \$ 555,164                | 100.0 | \$ 548,610 | 100.0 |
| <b>Underwriting location:</b> |                           |       |            |       |
| United States                 | \$ 450,892                | 81.2  | \$ 443,995 | 80.9  |
| Other                         | 104,272                   | 18.8  | 104,615    | 19.1  |
| Total                         | \$ 555,164                | 100.0 | \$ 548,610 | 100.0 |

*Six Months Ended June 30, 2018 versus 2017 period* . Gross premiums written by the mortgage segment for the six months ended June 30, 2018 were 4.8% lower than in the 2017 period. The reduction in gross premiums written primarily reflected a lower level of Australian mortgage reinsurance business and a lower level of U.S. single premium business. Net premiums written for the six months ended June 30, 2018 were 1.2% higher than in the 2017 period and reflected a declining cession to AIG on the 50% quota share reinsurance agreement covering 2014 to 2016 policy years of UGC business on a run-off basis, while the 2017 period also reflected higher retrocessions of Australian mortgage reinsurance business.

The persistency rate, which represents the percentage of mortgage insurance in force at the beginning of a 12-month period that remains in force at the end of such period, of the Arch MI U.S. portfolio of mortgage loans was 81.7% at June 30, 2018 , compared to 81.8% at December 31, 2017.

Arch MI U.S. generated \$19.9 billion of new insurance written ("NIW") in the 2018 second quarter , compared to \$17.3 billion in the 2017 second quarter , with a decrease in the origination market and a decline in single premium and other business with high risk attributes. NIW represents the original principal balance of all loans that received coverage during the period. Monthly premium policies contributed 94.3 % of NIW in the 2018 second quarter , compared to 85.7 % for the 2017 second quarter .

[Table of Contents](#)

The following tables provide details on the NIW generated by Arch MI U.S.:

(U.S. Dollars in millions)

|                                       | Three Months Ended June 30, |       |           |       |
|---------------------------------------|-----------------------------|-------|-----------|-------|
|                                       | 2018                        |       | 2017      |       |
|                                       | Amount                      | %     | Amount    | %     |
| Total new insurance written (NIW) (1) | \$ 19,944                   |       | \$ 17,303 |       |
| <b>Credit quality (FICO):</b>         |                             |       |           |       |
| >=740                                 | \$ 11,308                   | 56.7  | \$ 9,814  | 56.7  |
| 680-739                               | 7,182                       | 36.0  | 6,274     | 36.3  |
| 620-679                               | 1,454                       | 7.3   | 1,215     | 7.0   |
| Total                                 | \$ 19,944                   | 100.0 | \$ 17,303 | 100.0 |
| <b>Loan-to-value (LTV):</b>           |                             |       |           |       |
| 95.01% and above                      | \$ 2,835                    | 14.2  | \$ 1,700  | 9.8   |
| 90.01% to 95.00%                      | 9,205                       | 46.2  | 8,372     | 48.4  |
| 85.01% to 90.00%                      | 5,910                       | 29.6  | 5,462     | 31.6  |
| 85.01% and below                      | 1,994                       | 10.0  | 1,769     | 10.2  |
| Total                                 | \$ 19,944                   | 100.0 | \$ 17,303 | 100.0 |
| <b>Monthly vs. single:</b>            |                             |       |           |       |
| Monthly                               | \$ 18,814                   | 94.3  | \$ 14,832 | 85.7  |
| Single                                | 1,130                       | 5.7   | 2,471     | 14.3  |
| Total                                 | \$ 19,944                   | 100.0 | \$ 17,303 | 100.0 |
| <b>Purchase vs. refinance:</b>        |                             |       |           |       |
| Purchase                              | \$ 18,871                   | 94.6  | \$ 16,063 | 92.8  |
| Refinance                             | 1,073                       | 5.4   | 1,240     | 7.2   |
| Total                                 | \$ 19,944                   | 100.0 | \$ 17,303 | 100.0 |

(1) Represents the original principal balance of all loans that received coverage during the period.

(U.S. Dollars in millions)

|                                       | Six Months Ended June 30, |       |           |       |
|---------------------------------------|---------------------------|-------|-----------|-------|
|                                       | 2018                      |       | 2017      |       |
|                                       | Amount                    | %     | Amount    | %     |
| Total new insurance written (NIW) (1) | \$ 31,317                 |       | \$ 29,963 |       |
| <b>Credit quality (FICO):</b>         |                           |       |           |       |
| >=740                                 | \$ 17,920                 | 57.2  | \$ 16,998 | 56.7  |
| 680-739                               | 11,224                    | 35.8  | 10,889    | 36.3  |
| 620-679                               | 2,173                     | 6.9   | 2,076     | 6.9   |
| Total                                 | \$ 31,317                 | 100.0 | \$ 29,963 | 100.0 |
| <b>Loan-to-value (LTV):</b>           |                           |       |           |       |
| 95.01% and above                      | \$ 4,097                  | 13.1  | \$ 2,672  | 8.9   |
| 90.01% to 95.00%                      | 14,341                    | 45.8  | 14,357    | 47.9  |
| 85.01% to 90.00%                      | 9,553                     | 30.5  | 9,523     | 31.8  |
| 85.01% and below                      | 3,326                     | 10.6  | 3,411     | 11.4  |
| Total                                 | \$ 31,317                 | 100.0 | \$ 29,963 | 100.0 |
| <b>Monthly vs. single:</b>            |                           |       |           |       |
| Monthly                               | \$ 29,204                 | 93.3  | \$ 25,200 | 84.1  |
| Single                                | 2,113                     | 6.7   | 4,763     | 15.9  |
| Total                                 | \$ 31,317                 | 100.0 | \$ 29,963 | 100.0 |
| <b>Purchase vs. refinance:</b>        |                           |       |           |       |

*Net Premiums Earned* .

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

|                               | Three Months Ended June 30, |       |            |       |
|-------------------------------|-----------------------------|-------|------------|-------|
|                               | 2018                        |       | 2017       |       |
|                               | Amount                      | %     | Amount     | %     |
| <b>Client Location:</b>       |                             |       |            |       |
| United States                 | \$ 274,921                  | 94.6  | \$ 246,656 | 95.7  |
| Other                         | 15,557                      | 5.4   | 11,188     | 4.3   |
| Total                         | \$ 290,478                  | 100.0 | \$ 257,844 | 100.0 |
| <b>Underwriting location:</b> |                             |       |            |       |
| United States                 | \$ 247,897                  | 85.3  | \$ 219,084 | 85.0  |
| Other                         | 42,581                      | 14.7  | 38,760     | 15.0  |
| Total                         | \$ 290,478                  | 100.0 | \$ 257,844 | 100.0 |
|                               | Six Months Ended June 30,   |       |            |       |
|                               | 2018                        |       | 2017       |       |
|                               | Amount                      | %     | Amount     | %     |
| <b>Client Location:</b>       |                             |       |            |       |
| United States                 | \$ 540,606                  | 94.7  | \$ 482,687 | 96.1  |
| Other                         | 30,114                      | 5.3   | 19,680     | 3.9   |
| Total                         | \$ 570,720                  | 100.0 | \$ 502,367 | 100.0 |
| <b>Underwriting location:</b> |                             |       |            |       |
| United States                 | \$ 486,038                  | 85.2  | \$ 427,783 | 85.2  |
| Other                         | 84,682                      | 14.8  | 74,584     | 14.8  |
| Total                         | \$ 570,720                  | 100.0 | \$ 502,367 | 100.0 |

Net premiums earned for the 2018 second quarter were 12.7% higher than in the 2017 second quarter . For the six months ended June 30, 2018 , net premiums earned were 13.6% higher than in the 2017 period. The increases were primarily due to growth in insurance in force for Arch MI U.S.

*Other Underwriting Income* .

Other underwriting income, which is primarily related to older GSE credit risk-sharing transactions receiving derivative accounting treatment, was \$3.3 million for the 2018 second quarter , compared to \$4.3 million for the 2017 second quarter , and \$6.7 million for the six months ended June 30, 2018 , compared to \$8.4 million for the 2017 period.

*Losses and Loss Adjustment Expenses* .

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

|                                  | Three Months Ended |         | Six Months Ended |         |
|----------------------------------|--------------------|---------|------------------|---------|
|                                  | June 30,           |         | June 30,         |         |
|                                  | 2018               | 2017    | 2018             | 2017    |
| Current year                     | 15.4 %             | 19.5 %  | 17.8 %           | 20.5 %  |
| Prior period reserve development | (8.0)%             | (11.5)% | (6.4)%           | (10.6)% |
| Loss ratio                       | 7.4 %              | 8.0 %   | 11.4 %           | 9.9 %   |

|           |    |               |              |    |               |              |
|-----------|----|---------------|--------------|----|---------------|--------------|
| Purchase  | \$ | 29,159        | 93.1         | \$ | 26,783        | 89.4         |
| Refinance |    | <u>2,158</u>  | <u>6.9</u>   |    | <u>3,180</u>  | <u>10.6</u>  |
| Total     | \$ | <u>31,317</u> | <u>100.0</u> | \$ | <u>29,963</u> | <u>100.0</u> |

- (1) Represents the original principal balance of all loans that received coverage during the period.

### Current Year Loss Ratio.

The mortgage segment's current year loss ratio was 4.1 points lower in the 2018 second quarter than in the 2017 second quarter. The mortgage segment's current year loss ratio was 2.7 points lower for the six months ended June 30, 2018 than for the 2017 period. The lower current year loss ratio for the 2018 periods reflect the current favorable macroeconomic environment.

### Prior Period Reserve Development.

The mortgage segment's net favorable development was \$23.3 million, or 8.0 points, for the 2018 second quarter, compared to \$29.8 million, or 11.5 points, for the 2017 second quarter, and \$36.3 million, or 6.4 points, for the six months ended June 30, 2018, compared to \$53.4 million, or 10.6 points, for the 2017 period. See [note 6, "Reserve for Losses and Loss Adjustment Expenses,"](#) to our consolidated financial statements for information about the mortgage segment's prior year reserve development.

### Underwriting Expenses.

**2018 Second Quarter versus 2017 Second Quarter.** The underwriting expense ratio for the mortgage segment was 22.8% in the 2018 second quarter, compared to 22.5% in the 2017 second quarter. The higher underwriting expense ratio in the 2018 second quarter reflected a higher level of incentive compensation costs.

**Six Months Ended June 30, 2018 versus 2017 period.** The underwriting expense ratio for the mortgage segment was 23.1% for the six months ended June 30, 2018, compared to 25.5% for the 2017 period. The lower underwriting expense ratio in the 2018 period reflected a higher level of net premiums earned and expense savings from integration efforts following the acquisition of UGC.

### Corporate (Non-Underwriting) Segment

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

### Net Investment Income.

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

|                         | Three Months Ended |           | Six Months Ended |            |
|-------------------------|--------------------|-----------|------------------|------------|
|                         | June 30,           |           | June 30,         |            |
|                         | 2018               | 2017      | 2018             | 2017       |
| Fixed maturities        | \$ 98,968          | \$ 83,656 | \$ 191,406       | \$ 166,437 |
| Equity securities       | 4,232              | 3,976     | 6,982            | 6,942      |
| Short-term investments  | 4,225              | 1,669     | 8,174            | 3,110      |
| Other (1)               | 19,242             | 18,298    | 38,471           | 39,532     |
| Gross investment income | 126,667            | 107,599   | 245,033          | 216,021    |
| Investment expenses (2) | (18,906)           | (15,079)  | (37,029)         | (27,689)   |
| Net investment income   | \$ 107,761         | \$ 92,520 | \$ 208,004       | \$ 188,332 |

- (1) Amounts include dividends and other distributions on investment funds, term loan investments, funds held balances, cash balances and other items.
- (2) Investment expenses were approximately 0.40% of average invested assets for the 2018 second quarter, compared to 0.33% for the 2017 second quarter, and 0.37% for the six months ended June 30, 2018, compared to 0.29% for the 2017 period.

The higher level of net investment income for the 2018 second quarter reflected an increase in the embedded book yield on fixed income securities, partially offset by a higher level of expenses. The pre-tax investment income yield, calculated based on amortized cost and on an annualized basis, was 2.32% for the 2018 second quarter, compared to 2.04% for the 2017 second quarter, and 2.23% for the six months ended June 30, 2018, compared to 2.10% for the 2017 period.

### Corporate Expenses.

Corporate expenses were \$15.6 million for the 2018 second quarter, compared to \$22.2 million for the 2017 second quarter, and \$30.1 million for the six months ended June 30, 2018, compared to \$34.4 million for the 2017 period. The lower level of corporate expenses in the 2018 periods was primarily due to lower incentive compensation costs.

### UGC Transaction Costs and Other.

UGC transaction costs and other were \$6.9 million for the 2018 second quarter, compared to \$2.7 million for the 2017 second quarter, and \$7.7 million for the six months ended June 30, 2018, compared to \$18.3 million for the 2017 period. Amounts for the 2018 second quarter were primarily attributable to the write off of intangible assets related to insurance licenses for a subsidiary of UGC which is being merged with another subsidiary. Amounts for the 2017 periods primarily related to severance and related costs along with incentive compensation paid in conjunction with the UGC acquisition.

*Amortization of Intangible Assets.*

Amortization of intangible assets for the 2018 second quarter was \$26.5 million, compared to \$30.8 million for the 2017 second quarter, and \$53.2 million for the six months ended June 30, 2018, compared to \$62.1 million for the 2017 period, with amounts in all periods primarily related to intangible assets related to the UGC acquisition.

*Interest Expense.*

Interest expense was \$26.1 million for the 2018 second quarter, compared to the \$25.9 million for the 2017 second quarter, and \$52.0 million for the six months ended June 30, 2018, compared to \$51.7 million for the 2017 period.

*Loss on Redemption of Preferred Shares.*

In January 2018, we redeemed all remaining 6.75% Series C preferred shares and, in accordance with GAAP, recorded a loss of \$2.7 million to remove original issuance costs related to the redeemed shares from additional paid-in capital. Such adjustment had no impact on total shareholders' equity or cash flows.

*Net Realized Gains or Losses.*

We recorded net realized losses of \$59.5 million for the 2018 second quarter, compared to net realized gains of \$18.0 million for the 2017 second quarter, and net realized losses of \$171.4 million for the six months ended June 30, 2018, compared to net realized gains of \$46.6 million for the 2017 period. Currently, our portfolio is actively managed to maximize total return within certain guidelines. The effect of financial market movements on the investment portfolio will directly impact net realized gains and losses as the portfolio is adjusted and rebalanced. Net realized gains or losses from the sale of fixed maturities primarily results from our decisions to reduce credit exposure, to change duration targets, to rebalance our portfolios or due to relative value determinations. Net realized gains or losses also include realized and unrealized contract gains and losses on our derivative instruments, changes in the fair value of assets and liabilities accounted for using the fair value option and in the fair value of equities pursuant to new accounting guidance effective in the 2018 first quarter, along with re-measurement of contingent consideration liability amounts. See [note 7, "Investment Information—Net Realized Gains \(Losses\)."](#) to our consolidated financial statements for additional information.

*Net Impairment Losses Recognized in Earnings.*

We recorded \$0.5 million of impairment losses for the 2018 second quarter, compared to \$1.7 million for the 2017 second quarter, and \$0.6 million for the six months ended June 30, 2018, compared to \$3.5 million for the 2017 period. See [note 7, "Investment Information—Other-Than-Temporary](#)

[Impairments."](#) to our consolidated financial statements for additional information.

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

We recorded \$8.5 million of equity in net income related to investment funds accounted for using the equity method in the 2018 second quarter, compared to \$32.7 million of income for the 2017 second quarter, and \$36.5 million of income for the six months ended June 30, 2018, compared to \$80.8 million for the 2017 period. Investment funds accounted for using the equity method totaled \$1.43 billion at June 30, 2018, compared to \$1.04 billion at December 31, 2017.

*Net Foreign Exchange Gains or Losses.*

Net foreign exchange gains for the 2018 second quarter were \$46.2 million, compared to net foreign exchange losses for the 2017 second quarter of \$37.8 million. Net foreign exchange gains for the six months ended June 30, 2018 were \$31.2 million, compared to net foreign exchange losses for the 2017 period of \$57.7 million. Amounts in such periods were primarily unrealized and resulted from the effects of revaluing our net insurance liabilities required to be settled in foreign currencies at each balance sheet date.

*Income Tax Expense.*

Our income tax provision on income (loss) before income taxes resulted in an expense of 8.9% for the 2018 second quarter, compared to an expense of 15.7% for the 2017 second quarter, and 10.4% for the six months ended June 30, 2018, compared to 12.6% for the 2017 period. The effective tax rates for the 2018 second quarter and six months ended June 30, 2018 included a discrete income tax benefit of \$1.6 million and \$3.0 million, respectively, related to share-based compensation. Our effective tax rate, which is based upon the expected annual effective tax rate, may fluctuate from period to period based on the relative mix of income or loss reported by jurisdiction and the varying tax rates in each jurisdiction. The change in the U.S. federal corporate tax rate from 35% to 21% commencing on January 1, 2018 contributed to a lower effective tax rate for the 2018 periods as compared to the 2017 periods.

*Other Segment*

The 'other' segment includes the results of Watford Re. Pursuant to generally accepted accounting principles, Watford Re is considered a variable interest entity and we concluded that we are the primary beneficiary of Watford Re. As such, we consolidate the results of Watford Re in our consolidated financial statements, although we only own approximately 11% of Watford Re's common equity. See [note 11, "Variable Interest Entities and Noncontrolling Interests"](#) and [note 5, "Segment Information."](#) to our consolidated financial statements for additional information on Watford Re.

## CRITICAL ACCOUNTING POLICIES, ESTIMATES AND RECENT ACCOUNTING PRONOUNCEMENTS

Critical accounting policies, estimates and recent accounting pronouncements are discussed in Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our 2017 Form 10-K, updated where applicable in the notes accompanying our consolidated financial statements, including [note 2, "Recent Accounting Pronouncements."](#)

## FINANCIAL CONDITION

### Investable Assets

At June 30, 2018, total investable assets held by Arch were \$19.17 billion, excluding the \$2.65 billion included in the 'other' segment (i.e., attributable to Watford Re).

### Investable Assets Held by Arch

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

| Investable assets (1):                                                         | Estimated<br>Fair Value | % of<br>Total |
|--------------------------------------------------------------------------------|-------------------------|---------------|
| <b>June 30, 2018</b>                                                           |                         |               |
| Fixed maturities (2)                                                           | \$ 14,442,991           | 75.3          |
| Short-term investments (2)                                                     | 1,119,977               | 5.8           |
| Cash                                                                           | 480,984                 | 2.5           |
| Equity securities (2)                                                          | 545,146                 | 2.8           |
| Other investments (2)                                                          | 1,266,327               | 6.6           |
| Investments accounted for using the equity method                              | 1,428,582               | 7.5           |
| Securities transactions entered into but not settled at the balance sheet date | (111,997)               | (0.6)         |
| <b>Total investable assets held by Arch</b>                                    | <b>\$ 19,172,010</b>    | <b>100.0</b>  |
| <b>December 31, 2017</b>                                                       |                         |               |
| Fixed maturities (2)                                                           | \$ 14,798,213           | 75.1          |
| Short-term investments (2)                                                     | 1,509,713               | 7.7           |
| Cash                                                                           | 551,696                 | 2.8           |
| Equity securities (2)                                                          | 576,040                 | 2.9           |
| Other investments (2)                                                          | 1,476,960               | 7.5           |
| Investments accounted for using the equity method                              | 1,041,322               | 5.3           |
| Securities transactions entered into but not settled at the balance sheet date | (237,523)               | (1.2)         |
| <b>Total investable assets held by Arch</b>                                    | <b>\$ 19,716,421</b>    | <b>100.0</b>  |

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

At June 30, 2018, our fixed income portfolio, which includes fixed maturity securities and short-term investments, had average credit quality ratings from Standard & Poor's Rating

Services ("S&P")/Moody's of "AA/Aa2" and an average yield to maturity (embedded book yield), before investment expenses, of 2.64%. At December 31, 2017, our fixed income portfolio had average credit quality ratings from S&P/Moody's of "AA-/Aa2" and an average yield to maturity of 2.32%. Our investment portfolio had an average effective duration of 2.89 years at June 30, 2018, compared to 2.83 years at December 31, 2017. At June 30, 2018, approximately \$13.54 billion, or 71%, of total investable assets held by Arch were internally managed, compared to \$13.73 billion, or 70%, at December 31, 2017.

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

|                                         | Estimated<br>Fair Value | % of<br>Total |
|-----------------------------------------|-------------------------|---------------|
| <b>June 30, 2018</b>                    |                         |               |
| Corporate bonds                         | \$ 5,847,160            | 39.7          |
| Mortgage backed securities              | 498,759                 | 3.4           |
| Municipal bonds                         | 1,431,256               | 9.7           |
| Commercial mortgage backed securities   | 590,198                 | 4.0           |
| U.S. government and government agencies | 2,788,272               | 18.9          |
| Non-U.S. government securities          | 1,735,495               | 11.8          |
| Asset backed securities                 | 1,831,028               | 12.4          |
| <b>Total</b>                            | <b>\$ 14,722,168</b>    | <b>100.0</b>  |
| <b>December 31, 2017</b>                |                         |               |
| Corporate bonds                         | \$ 4,787,272            | 32.4          |
| Mortgage backed securities              | 328,924                 | 2.2           |
| Municipal bonds                         | 2,158,840               | 14.6          |
| Commercial mortgage backed securities   | 545,817                 | 3.7           |
| U.S. government and government agencies | 3,484,257               | 23.5          |
| Non-U.S. government securities          | 1,704,337               | 11.5          |
| Asset backed securities                 | 1,788,766               | 12.1          |
| <b>Total</b>                            | <b>\$ 14,798,213</b>    | <b>100.0</b>  |

[Table of Contents](#)

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

|                                        | Estimated<br>Fair Value | % of<br>Total |
|----------------------------------------|-------------------------|---------------|
| <b>June 30, 2018</b>                   |                         |               |
| U.S. government and gov't agencies (1) | \$ 3,196,856            | 22.1          |
| AAA                                    | 3,897,441               | 27.0          |
| AA                                     | 2,139,794               | 14.8          |
| A                                      | 3,114,115               | 21.6          |
| BBB                                    | 1,373,644               | 9.5           |
| BB                                     | 240,114                 | 1.7           |
| B                                      | 185,066                 | 1.3           |
| Lower than B                           | 64,858                  | 0.4           |
| Not rated                              | 231,103                 | 1.6           |
| Total                                  | <u>\$ 14,442,991</u>    | <u>100.0</u>  |
| <b>December 31, 2017</b>               |                         |               |
| U.S. government and gov't agencies (1) | \$ 3,771,835            | 25.5          |
| AAA                                    | 4,080,808               | 27.6          |
| AA                                     | 2,440,864               | 16.5          |
| A                                      | 2,470,936               | 16.7          |
| BBB                                    | 1,157,136               | 7.8           |
| BB                                     | 313,286                 | 2.1           |
| B                                      | 254,011                 | 1.7           |
| Lower than B                           | 77,543                  | 0.5           |
| Not rated                              | 231,794                 | 1.6           |
| Total                                  | <u>\$ 14,798,213</u>    | <u>100.0</u>  |

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

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

| Severity of gross<br>unrealized losses: | Estimated<br>Fair Value | Gross<br>Unrealized<br>Losses | % of<br>Total Gross<br>Unrealized<br>Losses |
|-----------------------------------------|-------------------------|-------------------------------|---------------------------------------------|
| <b>June 30, 2018</b>                    |                         |                               |                                             |
| 0-10%                                   | \$ 11,248,303           | \$ (200,606)                  | 96.6                                        |
| 10-20%                                  | 45,886                  | (6,215)                       | 3.0                                         |
| 20-30%                                  | 2,105                   | (591)                         | 0.3                                         |
| Greater than 30%                        | 373                     | (208)                         | 0.1                                         |
| Total                                   | <u>\$ 11,296,667</u>    | <u>\$ (207,620)</u>           | <u>100.0</u>                                |
| <b>December 31, 2017</b>                |                         |                               |                                             |
| 0-10%                                   | \$ 9,598,768            | \$ (93,057)                   | 87.6                                        |
| 10-20%                                  | 82,638                  | (11,269)                      | 10.6                                        |
| 20-30%                                  | 2,108                   | (671)                         | 0.6                                         |
| Greater than 30%                        | 1,881                   | (1,184)                       | 1.1                                         |
| Total                                   | <u>\$ 9,685,395</u>     | <u>\$ (106,181)</u>           | <u>100.0</u>                                |

The following table summarizes our top ten exposures to fixed income corporate issuers by fair value at June 30, 2018, excluding guaranteed amounts and covered bonds:

|                                         | Estimated<br>Fair Value | Credit<br>Rating (1) |
|-----------------------------------------|-------------------------|----------------------|
| Citigroup Inc.                          | \$ 190,925              | A-/A2                |
| JPMorgan Chase & Co.                    | 180,960                 | A-/A2                |
| Bank of America Corporation             | 178,797                 | A-/A3                |
| Apple Inc.                              | 170,852                 | AA+/Aa1              |
| Wells Fargo & Company                   | 136,738                 | A/A1                 |
| Daimler AG                              | 100,541                 | A/A2                 |
| Philip Morris International Inc.        | 99,728                  | A/A2                 |
| The Bank of New York Mellon Corporation | 96,728                  | A/A1                 |
| Toyota Motor Corporation                | 96,200                  | AA-/Aa3              |
| U.S. Bancorp                            | 90,850                  | AA-/A1               |
| Total                                   | <u>\$ 1,342,319</u>     |                      |

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

The following table provides information on our structured securities, which includes residential mortgage-backed securities ("RMBS"), commercial mortgage-backed securities ("CMBS") and asset-backed securities ("ABS"):

|                          | Agencies          | Investment<br>Grade | Below<br>Investment<br>Grade | Total               |
|--------------------------|-------------------|---------------------|------------------------------|---------------------|
| <b>June 30, 2018</b>     |                   |                     |                              |                     |
| RMBS                     | \$ 460,617        | \$ 14,362           | \$ 23,780                    | \$ 498,759          |
| CMBS                     | 46,205            | 523,535             | 20,458                       | 590,198             |
| ABS                      | —                 | 1,747,850           | 73,898                       | 1,821,748           |
| Total                    | <u>\$ 506,822</u> | <u>\$ 2,285,747</u> | <u>\$ 118,136</u>            | <u>\$ 2,910,705</u> |
| <b>December 31, 2017</b> |                   |                     |                              |                     |
| RMBS                     | \$ 284,466        | \$ 14,581           | \$ 29,877                    | \$ 328,924          |
| CMBS                     | 3,112             | 465,980             | 76,725                       | 545,817             |
| ABS                      | —                 | 1,691,232           | 97,534                       | 1,788,766           |
| Total                    | <u>\$ 287,578</u> | <u>\$ 2,171,793</u> | <u>\$ 204,136</u>            | <u>\$ 2,663,507</u> |

At June 30, 2018, our structured securities included \$40.3 million par value in sub-prime securities with a fair value of \$32.7 million and average credit quality ratings from S&P/Moody's of "CCC-/Caa3," compared to \$42.3 million par value with a fair value of \$35.4 million and average credit quality ratings of "CCC-/Caa3" at December 31, 2017.

## Table of Contents

The following table provides information on the fair value of our Eurozone investments at June 30, 2018 :

| Country (1) | Sovereign (2) | Corporate Bonds | Other (3)  | Total      |
|-------------|---------------|-----------------|------------|------------|
| Germany     | \$ 256,053    | \$ 3,404        | \$ 45,854  | \$ 305,311 |
| Netherlands | 110,568       | 117,589         | 18,360     | 246,517    |
| France      | 20,275        | 45,582          | 34,912     | 100,769    |
| Luxembourg  | —             | 11,338          | 8,952      | 20,290     |
| Ireland     | —             | 7,811           | 5,302      | 13,113     |
| Spain       | —             | 2,415           | 9,157      | 11,572     |
| Greece      | 1,968         | —               | 3,091      | 5,059      |
| Austria     | 3,976         | —               | —          | 3,976      |
| Italy       | —             | 685             | 2,309      | 2,994      |
| Belgium     | —             | 181             | 1,166      | 1,347      |
| Portugal    | —             | —               | 1,236      | 1,236      |
| Total       | \$ 392,840    | \$ 189,005      | \$ 130,339 | \$ 712,184 |

- (1) The country allocations set forth in the table are based on various assumptions made by us in assessing the country in which the underlying credit risk resides, including a review of the jurisdiction of organization, business operations and other factors. Based on such analysis, we do not believe that we have any other Eurozone investments at June 30, 2018 .
- (2) Includes securities issued and/or guaranteed by Eurozone governments.
- (3) Includes bank loans, equities and other.

At June 30, 2018 , our investment portfolio included \$545.1 million of equity securities, compared to \$576.0 million at December 31, 2017 . Our equity portfolio includes publicly traded common stocks in the natural resources, energy, consumer staples and other sectors.

The following table summarizes our other investments:

|                               | June 30, 2018 | December 31, 2017 |
|-------------------------------|---------------|-------------------|
| Asian and emerging markets    | \$ 300,050    | \$ 344,068        |
| Term loan investments         | 273,986       | 326,085           |
| Mezzanine debt funds          | 257,750       | 252,160           |
| Credit related funds          | 199,437       | 193,787           |
| Investment grade fixed income | 98,240        | 156,225           |
| Other (1)                     | 136,864       | 204,635           |
| Total                         | \$ 1,266,327  | \$ 1,476,960      |

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

Our investment strategy allows for the use of derivative instruments. We utilize various derivative instruments such as futures contracts to enhance investment performance, replicate investment positions or manage market exposures and duration risk that would be allowed under our investment guidelines if implemented in other ways. See [note 9, "Derivative Instruments,"](#) to our consolidated financial statements for additional disclosures related to derivatives.

Accounting guidance regarding fair value measurements addresses how companies should measure fair value when they

are required to use a fair value measure for recognition or disclosure purposes under GAAP and provides a common definition of fair value to be used throughout GAAP. See [note 8, "Fair Value,"](#) to our consolidated financial statements for a summary of our financial assets and liabilities measured at fair value, segregated by level in the fair value hierarchy.

### Investable Assets in the 'Other' Segment

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

The following table summarizes investable assets in the 'other' segment:

|                                                                                | June 30, 2018 | December 31, 2017 |
|--------------------------------------------------------------------------------|---------------|-------------------|
| Investments accounted for using the fair value option:                         |               |                   |
| Other investments                                                              | \$ 1,062,577  | \$ 924,410        |
| Fixed maturities                                                               | 1,053,795     | 1,177,033         |
| Short-term investments                                                         | 193,887       | 256,755           |
| Equity securities                                                              | 75,058        | 67,868            |
| Total                                                                          | 2,385,317     | 2,426,066         |
| Fixed maturities available for sale, at fair value                             | 279,177       | —                 |
| Equity securities, at fair value                                               | 63,009        | —                 |
| Cash                                                                           | 45,644        | 54,503            |
| Securities sold but not yet purchased                                          | (24,529)      | (34,375)          |
| Securities transactions entered into but not settled at the balance sheet date | (100,777)     | (6,127)           |
| Total investable assets included in 'other' segment                            | \$ 2,647,841  | \$ 2,440,067      |

### Premiums Receivable and Reinsurance Recoverables

At June 30, 2018 , 79.7% of premiums receivable of \$1.35 billion represented amounts not yet due, while amounts in excess of 90 days overdue were 3.7% of the total. At December 31, 2017 , 78.2% of premiums receivable of \$1.14 billion represented amounts not yet due, while amounts in excess of 90 days overdue were 4.0% of the total. Our reserves for doubtful accounts were approximately \$26.6 million at June 30, 2018 , compared to \$25.3 million at December 31, 2017 .

At June 30, 2018 and December 31, 2017 , approximately 63.5% and 69.9% of reinsurance recoverables on paid and unpaid losses (not including ceded unearned premiums) of \$2.73 billion and \$2.54 billion , respectively, were due from carriers which had an A.M. Best rating of "A-" or better while 36.5% and 30.1% , respectively, were from companies not rated. For items not rated, over 90% of such amount was collateralized through reinsurance trusts or letters of credit at June 30, 2018 and December 31, 2017 . The largest reinsurance recoverables from any one carrier was approximately 3.1% and 2.2% ,

respectively, of total shareholders' equity available to Arch at June 30, 2018 and December 31, 2017. Growth in items not rated is due to recoverables from a third party reinsurer related to a retroactive reinsurance transaction to reinsure run-off liabilities associated with certain discontinued U.S. specialty casualty and program exposures. Such amounts are fully collateralized. See [note 6, "Reserve for Losses and Loss Adjustment Expenses,"](#) to our consolidated financial statements for additional information.

Approximately 5.1% of the \$67.7 million of paid losses and loss adjustment expenses recoverable at June 30, 2018 were more than 90 days overdue, compared to 3.0% of the \$75.2 million of paid losses and loss adjustment expenses recoverable at December 31, 2017. No collection issues were indicated on the amount in excess of 90 days overdue at June 30, 2018.

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

|                          | Three Months Ended  |                     | Six Months Ended    |                     |
|--------------------------|---------------------|---------------------|---------------------|---------------------|
|                          | June 30,            |                     | June 30,            |                     |
|                          | 2018                | 2017                | 2018                | 2017                |
| <b>Premiums written:</b> |                     |                     |                     |                     |
| Direct                   | \$ 1,158,772        | \$ 1,093,558        | \$ 2,359,134        | \$ 2,190,313        |
| Assumed                  | 537,772             | 516,101             | 1,175,624           | 1,077,336           |
| Ceded                    | (397,648)           | (360,964)           | (823,318)           | (742,694)           |
| Net                      | <u>\$ 1,298,896</u> | <u>\$ 1,248,695</u> | <u>\$ 2,711,440</u> | <u>\$ 2,524,955</u> |
| <b>Premiums earned:</b>  |                     |                     |                     |                     |
| Direct                   | \$ 1,174,372        | \$ 1,071,648        | \$ 2,322,048        | \$ 2,095,100        |
| Assumed                  | 534,485             | 513,814             | 980,454             | 930,159             |
| Ceded                    | (372,094)           | (344,588)           | (730,840)           | (667,368)           |
| Net                      | <u>\$ 1,336,763</u> | <u>\$ 1,240,874</u> | <u>\$ 2,571,662</u> | <u>\$ 2,357,891</u> |
| <b>Losses and LAE:</b>   |                     |                     |                     |                     |
| Direct                   | \$ 520,473          | \$ 544,061          | \$ 1,088,939        | \$ 1,051,179        |
| Assumed                  | 340,969             | 303,582             | 561,279             | 490,538             |
| Ceded                    | (135,289)           | (157,783)           | (287,205)           | (299,287)           |
| Net                      | <u>\$ 726,153</u>   | <u>\$ 689,860</u>   | <u>\$ 1,363,013</u> | <u>\$ 1,242,430</u> |

## Reserves for Losses and Loss Adjustment Expenses

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

At June 30, 2018 and December 31, 2017, our Loss Reserves, net of unpaid losses and loss adjustment expenses recoverable, by type and by operating segment were as follows:

|                             | June 30,<br>2018    | December 31,<br>2017 |
|-----------------------------|---------------------|----------------------|
| <b>Insurance segment:</b>   |                     |                      |
| Case reserves               | \$ 1,449,505        | \$ 1,648,910         |
| IBNR reserves               | <u>3,190,253</u>    | <u>3,272,351</u>     |
| Total net reserves          | 4,639,758           | 4,921,261            |
| <b>Reinsurance segment:</b> |                     |                      |
| Case reserves               | 1,111,716           | 1,033,413            |
| Additional case reserves    | 128,272             | 158,377              |
| IBNR reserves               | <u>1,509,580</u>    | <u>1,499,962</u>     |
| Total net reserves          | 2,749,568           | 2,691,752            |
| <b>Mortgage segment:</b>    |                     |                      |
| Case reserves               | 403,464             | 443,069              |
| IBNR reserves               | <u>129,848</u>      | <u>104,169</u>       |
| Total net reserves (1)      | 533,312             | 547,238              |
| <b>Other segment:</b>       |                     |                      |
| Case reserves               | 327,170             | 260,876              |
| Additional case reserves    | 18,200              | 32,587               |
| IBNR reserves               | <u>504,580</u>      | <u>465,168</u>       |
| Total net reserves          | 849,950             | 758,631              |
| <b>Total:</b>               |                     |                      |
| Case reserves               | 3,291,855           | 3,386,268            |
| Additional case reserves    | 146,472             | 190,964              |
| IBNR reserves               | <u>5,334,261</u>    | <u>5,341,650</u>     |
| Total net reserves          | <u>\$ 8,772,588</u> | <u>\$ 8,918,882</u>  |

- (1) At June 30, 2018, total net reserves include \$451.2 million from U.S. primary mortgage insurance business, of which 76.7% represents policy years 2008 and prior and the remainder from later policy years. At December 31, 2017, total net reserves include \$477.1 million from U.S. primary mortgage insurance business, of which 79.8% represents policy years 2008 and prior and the remainder from later policy years.

[Table of Contents](#)

At June 30, 2018 and December 31, 2017, the insurance segment's Loss Reserves by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

|                                       | June 30,<br>2018 | December 31,<br>2017 |
|---------------------------------------|------------------|----------------------|
| <b>Insurance segment:</b>             |                  |                      |
| Professional lines (1)                | \$ 1,275,011     | \$ 1,308,261         |
| Construction and national accounts    | 1,133,342        | 1,094,300            |
| Excess and surplus casualty (2)       | 605,675          | 672,903              |
| Programs                              | 444,959          | 644,340              |
| Property, energy, marine and aviation | 380,149          | 437,518              |
| Travel, accident and health           | 83,251           | 86,122               |
| Lenders products                      | 47,387           | 53,912               |
| Other (3)                             | 669,984          | 623,905              |
| Total net reserves                    | \$ 4,639,758     | \$ 4,921,261         |

(1) Includes professional liability, executive assurance and healthcare business.

(2) Includes casualty and contract binding business.

(3) Includes alternative markets, excess workers' compensation and surety business.

At June 30, 2018 and December 31, 2017, the reinsurance segment's Loss Reserves by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

|                                             | June 30,<br>2018 | December 31,<br>2017 |
|---------------------------------------------|------------------|----------------------|
| <b>Reinsurance segment:</b>                 |                  |                      |
| Casualty (1)                                | \$ 1,492,791     | \$ 1,489,933         |
| Other specialty (2)                         | 589,117          | 523,321              |
| Property excluding property catastrophe (3) | 385,442          | 376,020              |
| Marine and aviation                         | 130,262          | 135,484              |
| Property catastrophe                        | 83,712           | 98,622               |
| Other (4)                                   | 68,244           | 68,372               |
| Total net reserves                          | \$ 2,749,568     | \$ 2,691,752         |

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

(2) Includes non-excess motor, surety, accident and health, workers' compensation catastrophe, agriculture, trade credit and other.

(3) Includes facultative business.

(4) Includes life, casualty clash and other.

## Mortgage Operations Supplemental Information

The mortgage segment's insurance in force ("IIF") and risk in force ("RIF") were as follows at June 30, 2018 and December 31, 2017:

| (U.S. Dollars in millions)           |    | June 30, 2018 |       | December 31, 2017 |       |
|--------------------------------------|----|---------------|-------|-------------------|-------|
|                                      |    | Amount        | %     | Amount            | %     |
| <b>Insurance In Force (IIF) (1):</b> |    |               |       |                   |       |
| U.S. primary mortgage insurance      | \$ | 262,889       | 73.1  | \$ 253,914        | 72.2  |
| Mortgage reinsurance                 |    | 26,302        | 7.3   | 28,017            | 8.0   |
| Other (2)                            |    | 70,677        | 19.6  | 69,905            | 19.9  |
| Total                                | \$ | 359,868       | 100.0 | \$ 351,836        | 100.0 |
| <b>Risk In Force (RIF) (3):</b>      |    |               |       |                   |       |
| U.S. primary mortgage insurance      | \$ | 67,271        | 92.4  | \$ 64,904         | 92.3  |
| Mortgage reinsurance                 |    | 2,282         | 3.1   | 2,473             | 3.5   |
| Other (2)                            |    | 3,237         | 4.4   | 2,921             | 4.2   |
| Total                                | \$ | 72,790        | 100.0 | \$ 70,298         | 100.0 |

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

(2) Includes GSE credit risk-sharing transactions and international insurance business.

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

The insurance in force and risk in force for our U.S. primary mortgage insurance business by policy year were as follows at June 30, 2018:

| (U.S. Dollars in millions) |    | IIF     |       | RIF       |       | Delinquency |
|----------------------------|----|---------|-------|-----------|-------|-------------|
|                            |    | Amount  | %     | Amount    | %     | Rate (1)    |
| <b>Policy year:</b>        |    |         |       |           |       |             |
| 2008 and prior             | \$ | 23,538  | 9.0   | \$ 5,335  | 7.9   | 8.76%       |
| 2009                       |    | 889     | 0.3   | 207       | 0.3   | 2.73%       |
| 2010                       |    | 806     | 0.3   | 220       | 0.3   | 2.22%       |
| 2011                       |    | 3,201   | 1.2   | 879       | 1.3   | 1.29%       |
| 2012                       |    | 11,398  | 4.3   | 3,135     | 4.7   | 0.71%       |
| 2013                       |    | 19,175  | 7.3   | 5,300     | 7.9   | 0.83%       |
| 2014                       |    | 20,352  | 7.7   | 5,473     | 8.1   | 0.92%       |
| 2015                       |    | 37,664  | 14.3  | 9,792     | 14.6  | 0.60%       |
| 2016                       |    | 57,643  | 21.9  | 14,645    | 21.8  | 0.65%       |
| 2017                       |    | 57,325  | 21.8  | 14,502    | 21.6  | 0.34%       |
| 2018                       |    | 30,898  | 11.8  | 7,783     | 11.6  | 0.03%       |
| Total                      | \$ | 262,889 | 100.0 | \$ 67,271 | 100.0 | 1.70%       |

(1) Represents the ending percentage of loans in default.

[Table of Contents](#)

The insurance in force and risk in force for our U.S. primary mortgage insurance business by policy year were as follows at December 31, 2017 :

| (U.S. Dollars in millions) | IIF        |       | RIF       |       | Delinquency |
|----------------------------|------------|-------|-----------|-------|-------------|
|                            | Amount     | %     | Amount    | %     | Rate (1)    |
| <b>Policy year:</b>        |            |       |           |       |             |
| 2008 and prior             | \$ 26,140  | 10.3  | \$ 6,003  | 9.2   | 10.24%      |
| 2009                       | 1,072      | 0.4   | 253       | 0.4   | 2.94%       |
| 2010                       | 1,089      | 0.4   | 295       | 0.5   | 2.31%       |
| 2011                       | 3,828      | 1.5   | 1,046     | 1.6   | 1.37%       |
| 2012                       | 13,247     | 5.2   | 3,629     | 5.6   | 0.75%       |
| 2013                       | 21,840     | 8.6   | 5,996     | 9.2   | 0.95%       |
| 2014                       | 22,884     | 9.0   | 6,112     | 9.4   | 1.10%       |
| 2015                       | 41,991     | 16.5  | 10,828    | 16.7  | 0.77%       |
| 2016                       | 62,020     | 24.4  | 15,643    | 24.1  | 0.80%       |
| 2017                       | 59,803     | 23.6  | 15,099    | 23.3  | 0.35%       |
| Total                      | \$ 253,914 | 100.0 | \$ 64,904 | 100.0 | 2.23%       |

(1) Represents the ending percentage of loans in default.

The following tables provide supplemental disclosures on risk in force for our U.S. primary mortgage insurance business at June 30, 2018 and December 31, 2017 :

| (U.S. Dollars in millions)    | June 30, 2018 |       | December 31, 2017 |       |
|-------------------------------|---------------|-------|-------------------|-------|
|                               | Amount        | %     | Amount            | %     |
| <b>Credit quality (FICO):</b> |               |       |                   |       |
| >=740                         | \$ 39,038     | 58.0  | \$ 37,794         | 58.2  |
| 680-739                       | 22,325        | 33.2  | 21,213            | 32.7  |
| 620-679                       | 5,235         | 7.8   | 5,159             | 7.9   |
| <620                          | 673           | 1.0   | 738               | 1.1   |
| Total                         | \$ 67,271     | 100.0 | \$ 64,904         | 100.0 |
| Weighted average FICO score   | 743           |       | 743               |       |

|                             |           |       |           |       |
|-----------------------------|-----------|-------|-----------|-------|
| <b>Loan-to-value (LTV):</b> |           |       |           |       |
| 95.01% and above            | \$ 6,915  | 10.3  | \$ 6,337  | 9.8   |
| 90.01% to 95.00%            | 37,488    | 55.7  | 36,174    | 55.7  |
| 85.01% to 90.00%            | 19,904    | 29.6  | 19,482    | 30.0  |
| 85.00% and below            | 2,964     | 4.4   | 2,911     | 4.5   |
| Total                       | \$ 67,271 | 100.0 | \$ 64,904 | 100.0 |
| Weighted average LTV        | 92.9%     |       | 92.9%     |       |

|                                        |           |  |           |  |
|----------------------------------------|-----------|--|-----------|--|
| Total RIF, net of external reinsurance | \$ 52,167 |  | \$ 49,100 |  |
|----------------------------------------|-----------|--|-----------|--|

(U.S. Dollars in millions)

|                            | June 30, 2018 |       | December 31, 2017 |       |
|----------------------------|---------------|-------|-------------------|-------|
|                            | Amount        | %     | Amount            | %     |
| <b>Total RIF by State:</b> |               |       |                   |       |
| Texas                      | \$ 5,260      | 7.8   | \$ 5,151          | 7.9   |
| California                 | 4,066         | 6.0   | 3,803             | 5.9   |
| Florida                    | 3,186         | 4.7   | 2,881             | 4.4   |
| Virginia                   | 2,844         | 4.2   | 2,773             | 4.3   |
| North Carolina             | 2,456         | 3.7   | 2,410             | 3.7   |
| Georgia                    | 2,453         | 3.6   | 2,331             | 3.6   |
| Illinois                   | 2,351         | 3.5   | 2,229             | 3.4   |
| Maryland                   | 2,298         | 3.4   | 2,234             | 3.4   |
| Washington                 | 2,297         | 3.4   | 2,294             | 3.5   |
| Minnesota                  | 2,268         | 3.4   | 2,165             | 3.3   |
| Others                     | 37,792        | 56.2  | 36,633            | 56.4  |
| Total                      | \$ 67,271     | 100.0 | \$ 64,904         | 100.0 |

The following table provides supplemental disclosures for our U.S. primary mortgage insurance business related to insured loans and loss metrics:

(U.S. Dollars in thousands, except policy, loan and claim count)

|                                                  | Six Months Ended<br>June 30, |           |
|--------------------------------------------------|------------------------------|-----------|
|                                                  | 2018                         | 2017      |
| <b>Roll-forward of insured loans in default:</b> |                              |           |
| Beginning delinquent number of loans             | 27,068                       | 29,691    |
| New notices (1)                                  | 17,792                       | 18,721    |
| Cures                                            | (21,865)                     | (20,785)  |
| Paid claims                                      | (1,958)                      | (3,724)   |
| Ending delinquent number of loans (1)(2)         | 21,037                       | 23,903    |
| Ending number of policies in force (2)           | 1,239,565                    | 1,183,659 |
| Delinquency rate (1)(2)                          | 1.70%                        | 2.02%     |

|                                            |           |            |
|--------------------------------------------|-----------|------------|
| <b>Losses:</b>                             |           |            |
| Number of claims paid                      | 1,958     | 3,724      |
| Total paid claims                          | \$ 83,534 | \$ 156,323 |
| Average per claim                          | \$ 42.7   | \$ 42.0    |
| Severity (3)                               | 101.6%    | 103.1%     |
| Average reserve per default (in thousands) | \$ 19.3   | \$ 20.4    |

- (1) There were no incremental new notices for the six months ended June 30, 2018 and 1,300 ending delinquent loans at June 30, 2018 from areas attributable to the 2017 third quarter hurricanes.
- (2) Includes first lien primary and pool policies.
- (3) Represents total paid claims divided by RIF of loans for which claims were paid.

The risk-to-capital ratio, which represents total current (non-delinquent) risk in force, net of reinsurance, divided by total statutory capital, for Arch MI U.S. was approximately 11.6 to 1 at June 30, 2018 , compared to 10.8 to 1 at December 31, 2017.

### Shareholders' Equity and Book Value per Share

Total shareholders' equity available to Arch was \$9.16 billion at June 30, 2018 , compared to \$9.20 billion at December 31, 2017 . The decrease reflected share buybacks and negative investment returns resulting from the increase in interest rates during the period, partially offset by strong underwriting results.

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

| (U.S. dollars in thousands, except share data)                                     | June 30,<br>2018 | December 31,<br>2017 |
|------------------------------------------------------------------------------------|------------------|----------------------|
| Total shareholders' equity available to Arch                                       | \$ 9,163,755     | \$ 9,196,602         |
| Less preferred shareholders' equity                                                | 780,000          | 872,555              |
| Common shareholders' equity available to Arch                                      | \$ 8,383,755     | \$ 8,324,047         |
| Common shares and common share equivalents outstanding, net of treasury shares (1) | 405,436,637      | 409,956,417          |
| Book value per share                                                               | \$ 20.68         | \$ 20.30             |

(1) Excludes the effects of 20,843,879 and 19,770,174 stock options and 1,400,051 and 913,488 restricted stock units outstanding at June 30, 2018 and December 31, 2017, respectively.

## LIQUIDITY

This section does not include information specific to Watford Re. We do not guarantee or provide credit support for Watford Re, and our financial exposure to Watford Re is limited to our investment in Watford Re's common and preferred shares and counterparty credit risk (mitigated by collateral) arising from reinsurance transactions with Watford Re.

Liquidity is a measure of our ability to access sufficient cash flows to meet the short-term and long-term cash requirements of our business operations.

Arch Capital is a holding company whose assets primarily consist of the shares in its subsidiaries. Generally, Arch Capital depends on its available cash resources, liquid investments and dividends or other distributions from its subsidiaries to make payments, including the payment of debt service obligations and operating expenses it may incur and any dividends or liquidation amounts with respect to our preferred and common shares.

For the six months ended June 30, 2018, Arch Capital received dividends of \$239.6 million from Arch Re Bermuda, our Bermuda-based reinsurer and insurer, which can pay approximately \$1.93 billion to Arch Capital during the remainder of 2018 without providing an affidavit to the Bermuda Monetary Authority ("BMA").

For the six months ended June 30, 2018, Arch Capital Group (U.S.) Inc. ("Arch-U.S.") received \$25.0 million of dividends from Arch Reinsurance Company ("Arch Re U.S."), our U.S.-licensed reinsurer. Arch Re U.S. can pay approximately \$103.8 million to Arch-U.S. during the remainder of 2018, subject to the approval of the Commissioner of the Delaware Department of Insurance.

For the six months ended June 30, 2018, Arch-U.S. received

\$150.0 million of dividends from Arch U.S. MI Holdings Inc., a subsidiary of Arch-U.S., which received \$400.0 million of dividends from United Guaranty Residential Insurance Company ("UGRIC") and other UGC companies. Arch U.S. MI Holdings Inc. used \$250.0 million of such proceeds to pay down its revolving credit agreement borrowings. UGRIC has no remaining ordinary dividend capacity for the remainder of 2018.

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

## Cash Flows

The following table summarizes our cash flows from operating, investing and financing activities, excluding amounts related to the 'other' segment (i.e., Watford Re). See [note 11, "Variable Interest Entities and Noncontrolling Interests,"](#) for cash flows related to Watford Re.

|                                                           | Six Months Ended |             |
|-----------------------------------------------------------|------------------|-------------|
|                                                           | June 30,         |             |
|                                                           | 2018             | 2017        |
| <b>Total cash provided by (used for):</b>                 |                  |             |
| Operating activities                                      | \$ 404,451       | \$ 399,755  |
| Investing activities                                      | 270,381          | (225,626)   |
| Financing activities                                      | (731,613)        | (252,009)   |
| Effects of exchange rate changes on foreign currency cash | (9,024)          | 8,457       |
| Increase (decrease) in cash and restricted cash           | \$ (65,805)      | \$ (69,423) |

- Cash provided by operating activities for the six months ended June 30, 2018 reflected a higher level of premiums collected than in the 2017 period and an income tax refund, partially offset by a retroactive reinsurance transaction with a third party reinsurer, while the 2017 period reflected higher purchases of tax and loss bonds and outflows related to the UGC acquisition.

- Cash provided by investing activities for the six months ended June 30, 2018 was higher than the cash used in the 2017 period, primarily reflecting the sale of short term investments to fund the financing activities noted below. In addition, activity for the 2018 period reflected higher net purchases of fixed maturity investments than in the 2017 period.

- Cash used for financing activities for the six months ended June 30, 2018 was higher than in the 2017 period, and reflected \$250.0 million of paydowns on our revolving credit agreement borrowings, \$173.6 million of repurchases under our share repurchase program and \$92.6 million related to redemption of our Series C preferred shares in January 2018.

## CAPITAL RESOURCES

This section does not include information specific to Watford Re. We do not guarantee or provide credit support for Watford Re, and our financial exposure to Watford Re is limited to our investment in Watford Re's common and preferred shares and counterparty credit risk (mitigated by collateral) arising from reinsurance transactions with Watford Re.

The following table provides an analysis of our capital structure:

| (U.S. dollars in thousands, except share data)             | Jun 30,<br>2018      | Dec 31,<br>2017      |
|------------------------------------------------------------|----------------------|----------------------|
| <b>Debt:</b>                                               |                      |                      |
| Senior notes, due May 2034                                 | \$ 297,101           | \$ 297,053           |
| Arch-U.S. senior notes, due Nov 2043 (1)                   | 494,671              | 494,621              |
| Arch Finance senior notes, due Dec 2026 (1)                | 496,229              | 496,043              |
| Arch Finance senior notes, due Dec 2046 (1)                | 445,210              | 445,167              |
| Revolving credit agreement borrowings due Oct 2021 (2)     | 125,000              | 375,000              |
| <b>Total</b>                                               | <b>\$ 1,858,211</b>  | <b>\$ 2,107,884</b>  |
| <b>Shareholders' equity available to Arch:</b>             |                      |                      |
| Series C non-cumulative preferred shares (3)               | \$ —                 | \$ 92,555            |
| Series E non-cumulative preferred shares                   | 450,000              | 450,000              |
| Series F non-cumulative preferred shares                   | 330,000              | 330,000              |
| Common shareholders' equity                                | 8,383,755            | 8,324,047            |
| <b>Total</b>                                               | <b>\$ 9,163,755</b>  | <b>\$ 9,196,602</b>  |
| <b>Total capital available to Arch</b>                     | <b>\$ 11,021,966</b> | <b>\$ 11,304,486</b> |
| Senior notes to total capital (%)                          | 15.7                 | 15.3                 |
| Revolving credit agreement borrowings to total capital (%) | 1.1                  | 3.3                  |
| Debt to total capital (%)                                  | 16.9                 | 18.6                 |
| Preferred to total capital (%)                             | 7.1                  | 7.7                  |
| Debt and preferred to total capital (%)                    | 23.9                 | 26.4                 |

- (1) Fully and unconditionally guaranteed by Arch Capital.
- (2) \$500 million unsecured facility for revolving loans and letters of credit.
- (3) Redeemed on January 2, 2018.

Arch Capital and Arch-U.S. are each holding companies and, accordingly, they conduct substantially all of their operations through their operating subsidiaries. Arch Capital Finance LLC ("Arch Finance") is a wholly owned subsidiary of Arch U.S. MI Holdings Inc. As a result, Arch Capital, Arch-U.S. and Arch Finance's cash flows and their ability to service their debt depends upon the earnings of their operating subsidiaries, or affiliates in the case of Arch Finance, and on their ability to distribute the earnings, loans or other payments from such subsidiaries or affiliates to Arch Capital, Arch-U.S. and Arch Finance, respectively.

In addition, Arch MI U.S. is required to maintain compliance with the GSEs requirements, known as the Private Mortgage Insurer Eligibility Requirements or "PMIERS." The financial requirements require an eligible mortgage insurer's available assets, which generally include only the most liquid assets of

an insurer, to meet or exceed "minimum required assets" as of each quarter end. Minimum required assets are calculated from PMIERS tables with several risk dimensions (including origination year, original loan-to-value and original credit score of performing loans, and the delinquency status of non-performing loans) and are subject to a minimum amount. Arch MI U.S. satisfied the PMIERS' financial requirements as of June 30, 2018 with an estimated PMIERS sufficiency ratio of 134% , compared to 129% at December 31, 2017.

Arch Capital, through its subsidiaries, provides financial support to certain of its insurance subsidiaries and affiliates, through certain reinsurance arrangements beneficial to the ratings of such subsidiaries. Historically, our insurance, reinsurance and mortgage insurance subsidiaries have entered into separate reinsurance arrangements with Arch Re Bermuda covering individual lines of business. The reinsurance agreements between our U.S.-based property casualty insurance and reinsurance subsidiaries and Arch Re Bermuda were canceled on a cutoff basis as of January 1, 2018. As a result, the level of subject business ceded to Arch Re Bermuda was substantially lower for the six months ended June 30, 2018 than in prior periods.

## SHARE REPURCHASE PROGRAM

The board of directors of Arch Capital has authorized the investment in Arch Capital's common shares through a share repurchase program. For the six months ended June 30, 2018 , Arch Capital repurchased 6,522,645 shares under the share repurchase program with an aggregate purchase price of \$173.6 million . Since the inception of the share repurchase program through June 30, 2018 , Arch Capital has repurchased 382.2 million common shares for an aggregate purchase price of \$3.86 billion . At June 30, 2018 , approximately \$272.9 million of share repurchases were available under the program, which may be effected from time to time in open market or privately negotiated transactions through December 31, 2019.

The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations. We will continue to monitor our share price and, depending upon results of operations, market conditions and the development of the economy, as well as other factors, we will consider share repurchases on an opportunistic basis.

## CATASTROPHIC EVENTS AND SEVERE ECONOMIC EVENTS

We have large aggregate exposures to natural and man-made catastrophic events and severe economic events. Catastrophes can be caused by various events, including hurricanes, floods, windstorms, earthquakes, hailstorms, tornadoes, explosions, severe winter weather, fires, droughts and other natural disasters. Catastrophes can also cause losses in non-property

business such as mortgage insurance, workers' compensation or general liability. In addition to the nature of property business, we believe that economic and geographic trends affecting insured property, including inflation, property value appreciation and geographic concentration, tend to generally increase the size of losses from catastrophic events over time.

Our models employ both proprietary and vendor-based systems and include cross-line correlations for property, marine, offshore energy, aviation, workers compensation and personal accident. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we seek to limit our 1-in-250 year return period net probable maximum loss from a severe catastrophic event in any geographic zone to approximately 25% of total shareholders' equity available to Arch. We reserve the right to change this threshold at any time.

Based on in-force exposure estimated as of July 1, 2018, our modeled peak zone catastrophe exposure was a windstorm affecting the Northeastern U.S., with a net probable maximum pre-tax loss of \$404 million, followed by windstorms affecting the Gulf of Mexico and Florida Tri-County regions with net probable maximum pre-tax losses of \$390 million and \$346 million, respectively. Our exposures to other perils, such as U.S. earthquake and international events, were less than the exposures arising from U.S. windstorms and hurricanes. As of July 1, 2018, our modeled peak zone earthquake exposure (Los Angeles earthquake) represented approximately 57% of our peak zone catastrophe exposure, and our modeled peak zone international exposure (Japan earthquake) was substantially less than both our peak zone windstorm and earthquake exposures.

Effective July 1, 2018, our insurance operations had in effect a reinsurance program which provided coverage for certain property-catastrophe related losses equal to \$275 million in excess of a \$75 million retention per occurrence. Such amounts compare to \$200 million in excess of a \$150 million retention per occurrence prior to July 1, 2018.

We also have significant exposure to losses due to mortgage defaults resulting from severe economic events in the future. For our U.S. mortgage insurance business, we have developed a proprietary risk model ("Realistic Disaster Scenario" or "RDS") that simulates the maximum loss resulting from a severe economic downturn impacting the housing market. The RDS models the collective impact of adverse conditions for key economic indicators, the most significant of which is a decline in home prices. The RDS model projects paths of future home prices, unemployment rates, income levels and interest rates and assumes correlation across states and geographic regions. The resulting future performance of our in-force portfolio is then estimated under the economic stress scenario, reflecting

loan and borrower information.

Currently, we seek to limit our modeled RDS loss from a severe economic event to approximately 25% of total tangible shareholders' equity available to Arch (total shareholders' equity available to Arch less goodwill and intangible assets). We reserve the right to change this threshold at any time. Based on in-force exposure estimated as of July 1, 2018, our modeled RDS loss was less than 15% of tangible shareholders' equity available to Arch.

Net probable maximum loss estimates are net of expected reinsurance recoveries, before income tax and before excess reinsurance reinstatement premiums. RDS loss estimates are net of expected reinsurance recoveries and after income tax. Catastrophe loss estimates are reflective of the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our catastrophe loss estimates include clash estimates from other zones. Our catastrophe loss estimates and RDS loss estimates do not represent our maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates. There can be no assurances that we will not suffer pre-tax losses greater than 25% of our total shareholders' equity or tangible shareholders' equity from one or more catastrophic events or severe economic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques or as a result of a decision to change the percentage of shareholders' equity exposed to a single catastrophic event or severe economic event. In addition, actual losses may increase if our reinsurers fail to meet their obligations to us or the reinsurance protections purchased by us are exhausted or are otherwise unavailable. See "Risk Factors—Risks Relating to Our Industry" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Catastrophic Events and Severe Economic Events" in our 2017 Form 10-K.

## OFF-BALANCE SHEET ARRANGEMENTS

Off-balance sheet arrangements are discussed in Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our 2017 Form 10-K.

## MARKET SENSITIVE INSTRUMENTS AND RISK MANAGEMENT

In accordance with the SEC's Financial Reporting Release No. 48, we performed a sensitivity analysis to determine the effects that market risk exposures could have on the future earnings, fair values or cash flows of our financial instruments as of June 30, 2018. Market risk represents the risk of changes in the fair value of a financial instrument and is comprised of

several components, including liquidity, basis and price risks. We have not included Watford Re in the following analyses as we do not guarantee or provide credit support for Watford Re, and our financial exposure to Watford Re is limited to our investment in Watford Re's common and preferred shares and counterparty credit risk (mitigated by collateral) arising from reinsurance transactions.

An analysis of material changes in market risk exposures at June 30, 2018 that affect the quantitative and qualitative disclosures presented in our 2017 Form 10-K (see section captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations—Market Sensitive Instruments and Risk Management") were as follows:

### Investment Market Risk

**Fixed Income Securities.** We invest in interest rate sensitive securities, primarily debt securities. We consider the effect of interest rate movements on the fair value of our fixed maturities, fixed maturities pledged under securities lending agreements, short-term investments and certain of our other investments which invest in fixed income securities and the corresponding change in unrealized appreciation. As interest rates rise, the fair value of our interest rate sensitive securities falls, and the converse is also true. Based on historical observations, there is a low probability that all interest rate yield curves would shift in the same direction at the same time. Furthermore, at times interest rate movements in certain credit sectors exhibit a much lower correlation to changes in U.S. Treasury yields. Accordingly, the actual effect of interest rate movements may differ materially from the amounts set forth in the following tables.

The following table summarizes the effect that an immediate, parallel shift in the interest rate yield curve would have had on our fixed income securities:

| (U.S. dollars in billions) | Interest Rate Shift in Basis Points |          |          |           |           |
|----------------------------|-------------------------------------|----------|----------|-----------|-----------|
|                            | -100                                | -50      | —        | +50       | +100      |
| <b>Jun 30, 2018</b>        |                                     |          |          |           |           |
| Total fair value           | \$ 18.67                            | \$ 18.40 | \$ 18.15 | \$ 17.89  | \$ 17.64  |
| Change from base           | 2.9%                                | 1.4%     |          | (1.4)%    | (2.8)%    |
| Change in unrealized value | \$ 0.53                             | \$ 0.25  |          | \$ (0.25) | \$ (0.51) |
| <b>Dec 31, 2017</b>        |                                     |          |          |           |           |
| Total fair value           | \$ 19.11                            | \$ 18.85 | \$ 18.59 | \$ 18.33  | \$ 18.09  |
| Change from base           | 2.8%                                | 1.4%     |          | (1.4)%    | (2.7)%    |
| Change in unrealized value | \$ 0.52                             | \$ 0.26  |          | \$ (0.26) | \$ (0.50) |

In addition, we consider the effect of credit spread movements on the market value of our fixed maturities, fixed maturities pledged under securities lending agreements, short-term investments and certain of our other investments and

investment funds accounted for using the equity method which invest in fixed income securities and the corresponding change in unrealized appreciation. As credit spreads widen, the fair value of our fixed income securities falls, and the converse is also true.

The following table summarizes the effect that an immediate, parallel shift in credit spreads in a static interest rate environment would have had on our fixed income securities:

| (U.S. dollars in billions) | Credit Spread Shift in Percentage Points |          |          |           |           |
|----------------------------|------------------------------------------|----------|----------|-----------|-----------|
|                            | -100                                     | -50      | —        | +50       | +100      |
| <b>Jun 30, 2018</b>        |                                          |          |          |           |           |
| Total fair value           | \$ 18.51                                 | \$ 18.33 | \$ 18.15 | \$ 17.96  | \$ 17.78  |
| Change from base           | 2.0%                                     | 1.0%     |          | (1.0)%    | (2.0)%    |
| Change in unrealized value | \$ 0.36                                  | \$ 0.18  |          | \$ (0.18) | \$ (0.36) |
| <b>Dec 31, 2017</b>        |                                          |          |          |           |           |
| Total fair value           | \$ 18.96                                 | \$ 18.77 | \$ 18.59 | \$ 18.40  | \$ 18.22  |
| Change from base           | 2.0%                                     | 1.0%     |          | (1.0)%    | (2.0)%    |
| Change in unrealized value | \$ 0.37                                  | \$ 0.19  |          | \$ (0.19) | \$ (0.37) |

Another method that attempts to measure portfolio risk is Value-at-Risk ("VaR"). VaR attempts to take into account a broad cross-section of risks facing a portfolio by utilizing relevant securities volatility data skewed towards the most recent months and quarters. VaR measures the amount of a portfolio at risk for outcomes 1.65 standard deviations from the mean based on normal market conditions over a one year time horizon and is expressed as a percentage of the portfolio's initial value. In other words, 95% of the time, should the risks taken into account in the VaR model perform per their historical tendencies, the portfolio's loss in any one year period is expected to be less than or equal to the calculated VaR, stated as a percentage of the measured portfolio's initial value. As of June 30, 2018, our portfolio's VaR was estimated to be 3.15% compared to an estimated 3.10% at December 31, 2017.

**Equity Securities.** At June 30, 2018 and December 31, 2017, the fair value of our investments in equity securities totaled \$545.1 million and \$576.0 million, respectively. These investments are exposed to price risk, which is the potential loss arising from decreases in fair value. An immediate hypothetical 10% decline in the value of each position would reduce the fair value of such investments by approximately \$54.5 million and \$57.6 million at June 30, 2018 and December 31, 2017, respectively, and would have decreased book value per share by approximately \$0.13 and \$0.14, respectively. An immediate hypothetical 10% increase in the value of each position would increase the fair value of such investments by approximately \$54.5 million and \$57.6 million at June 30, 2018 and December 31, 2017, respectively, and would have increased book value per share by approximately \$0.13 and \$0.14, respectively.

**Investment-Related Derivatives.** At June 30, 2018, the notional value of all derivative instruments (excluding to-be-announced

mortgage backed securities which are included in the fixed income securities analysis above and foreign currency forward contracts which are included in the foreign currency exchange risk analysis below) was \$3.20 billion , compared to \$2.44 billion at December 31, 2017 . If the underlying exposure of each investment-related derivative held at June 30, 2018 depreciated by 100 basis points, it would have resulted in a reduction in net income of approximately \$32.0 million , and a decrease in book value per share of approximately \$0.08 per share, compared to \$24.4 million and \$0.06 per share, respectively, on investment-related derivatives held at December 31, 2017 . If the underlying exposure of each investment-related derivative held at June 30, 2018 appreciated by 100 basis points, it would have resulted in an increase in net income of approximately \$32.0 million , and an increase in book value per share of approximately \$0.08 per share, compared to \$24.4 million and \$0.06 per share, respectively, on investment-related derivatives held at December 31, 2017 . See [note 9, “Derivative Instruments.”](#) to our consolidated financial statements for additional disclosures concerning derivatives.

For further discussion on investment activity, please refer to “Financial Condition—Investable Assets.”

### Foreign Currency Exchange Risk

Foreign currency rate risk is the potential change in value, income and cash flow arising from adverse changes in foreign currency exchange rates. Through our subsidiaries and branches located in various foreign countries, we conduct our insurance and reinsurance operations in a variety of local currencies other than the U.S. Dollar. We generally hold investments in foreign currencies which are intended to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities. We may also utilize foreign currency forward contracts and currency options as part of our investment strategy. See [note 9, “Derivative Instruments.”](#) to our

consolidated financial statements for additional information.

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

| (U.S. dollars in thousands, except per share data)                                                          | June 30,<br>2018 | December 31,<br>2017 |
|-------------------------------------------------------------------------------------------------------------|------------------|----------------------|
| Net assets (liabilities), denominated in foreign currencies, excluding shareholders' equity and derivatives | \$ (67,954)      | \$ 401,966           |
| Shareholders' equity denominated in foreign currencies (1)                                                  | 336,778          | 345,743              |
| Net foreign currency forward contracts outstanding (2)                                                      | 138,494          | (123,732)            |
| Net exposures denominated in foreign currencies                                                             | \$ 407,318       | \$ 623,977           |
| Pre-tax impact of a hypothetical 10% appreciation of the U.S. Dollar against foreign currencies:            |                  |                      |
| Shareholders' equity                                                                                        | \$ (40,732)      | \$ (62,398)          |
| Book value per share                                                                                        | \$ (0.10)        | \$ (0.15)            |
| Pre-tax impact of a hypothetical 10% decline of the U.S. Dollar against foreign currencies:                 |                  |                      |
| Shareholders' equity                                                                                        | \$ 40,732        | \$ 62,398            |
| Book value per share                                                                                        | \$ 0.10          | \$ 0.15              |

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

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

### Effects of Inflation

We do not believe that inflation has had a material effect on our consolidated results of operations, except insofar as inflation may affect our reserves for losses and loss adjustment expenses and interest rates. The potential exists, after a catastrophe loss, for the development of inflationary pressures in a local economy. The anticipated effects of inflation on us are considered in our catastrophe loss models. The actual effects of inflation on our results cannot be accurately known until claims are ultimately settled.

## OTHER FINANCIAL INFORMATION

---

The consolidated financial statements as of June 30, 2018 and for the three month and six month periods ended June 30, 2018 and 2017 have been reviewed by PricewaterhouseCoopers LLP, the registrant's independent public accountants, whose report is included as an exhibit to this filing. The report of PricewaterhouseCoopers LLP states that they did not audit and they do not express an opinion on that unaudited financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied. PricewaterhouseCoopers LLP is not subject to the liability provisions of Section 11 of the Securities Act of 1933 for their report on the unaudited financial information because that report is not a "report" or a "part" of the registration statement prepared or certified by PricewaterhouseCoopers LLP within the meaning of Sections 7 and 11 of the Securities Act of 1933.

### ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

---

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

### ITEM 4. CONTROLS AND PROCEDURES

---

#### Evaluation of Disclosure Controls and Procedures

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

We continue to enhance our operating procedures and internal controls to effectively support our business and our regulatory

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

#### Changes in Internal Controls Over Financial Reporting

There have been no changes in internal control over financial reporting that occurred during the quarter ended June 30, 2018 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

## PART II. OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

We, in common with the insurance industry in general, are subject to litigation and arbitration in the normal course of our business. As of June 30, 2018, we were not a party to any litigation or arbitration which is expected by management to have a material adverse effect on our results of operations and financial condition and liquidity.

### ITEM 1A. RISK FACTORS

There were no material changes from the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2017.

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

The following table summarizes our purchases of common shares for the 2018 second quarter :

| Period               | Issuer Purchases of Equity Securities |                              |                                                                                  |                                                                                             |
|----------------------|---------------------------------------|------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
|                      | Total Number of Shares Purchased (1)  | Average Price Paid per Share | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan or Programs (2) |
| 4/1/2018 - 4/30/2018 | 2,754,393                             | \$ 26.90                     | 2,727,816                                                                        | \$ 369,861                                                                                  |
| 5/1/2018 - 5/31/2018 | 3,215,118                             | 26.38                        | 2,872,941                                                                        | \$ 294,159                                                                                  |
| 6/1/2018 - 6/30/2018 | 888,757                               | 26.43                        | 803,673                                                                          | \$ 272,926                                                                                  |
| Total                | 6,858,268                             | \$ 26.60                     | 6,404,430                                                                        |                                                                                             |

- (1) Represents repurchases by Arch Capital of shares, from time to time, from employees in order to facilitate the payment of withholding taxes on restricted shares granted and the exercise of stock appreciation rights. We purchased these shares at their fair value, as determined by reference to the closing price of our common shares on the day the restricted shares vested or the stock appreciation rights were exercised.
- (2) Remaining amount available at June 30, 2018 under Arch Capital's share repurchase authorization, under which repurchases may be effected from time to time in open market or privately negotiated transactions through December 31, 2019.

---

**ITEM 5. OTHER INFORMATION**

---

In accordance with Section 10a(i)(2) of the Securities Exchange Act of 1934, as amended, we are responsible for disclosing non-audit services to be provided by our independent auditor, PricewaterhouseCoopers LLP, which are approved by the Audit Committee of our board of directors. During the 2018 second quarter, the Audit Committee approved engagements of PricewaterhouseCoopers LLP for permitted non-audit services, which consisted of tax consulting services, tax compliance services and other accounting consulting services.

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

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

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

Certain of our non-U.S. subsidiaries provide global marine policies that provide coverage for vessels navigating into and out of ports worldwide. In light of European Union and U.S. modifications to Iran sanctions in 2016, including the issuance of General License H, and consistent with General License H, we have been notified that certain of our policyholders shipped cargo to and from Iran, and that such cargo may include transporting crude oil from Iran to another country. Since these policies insure multiple voyages and fleets containing multiple ships, we are unable to attribute gross revenues and net profits from such marine policies to these activities involving Iran. On May 8, 2018, the President announced that the U.S. will cease participation in the Joint Comprehensive Plan of Action and will begin reimposing the U.S. nuclear-related sanctions. On June 27, 2018, OFAC revoked General License H and added Section 560.537 to the Iranian Transactions and Sanctions Regulations, which authorizes all transactions and activities that are ordinarily incident and necessary to the winding down of activities previously approved under General License H through November 4, 2018. Our non-U.S. affiliates expect to wind down activities in Iran by November 4, 2018 in accordance with all applicable laws and regulations. Since May 8, 2018, our non-U.S. subsidiaries have not entered into any new transactions that had previously been permitted under General License H.

## ITEM 6. EXHIBITS

| Exhibit No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1        | <a href="#">ACGL 2018 Long Term Incentive and Share Award Plan†</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 10.2        | <a href="#">Employment Agreement, dated as of February 1, 2018, between ACGL and W. Preston Hutchings†</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10.3        | <a href="#">Form of Restricted Share Award Agreement for Named Executive Officers and certain Executive Officers of ACGL and subsidiaries†</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10.4        | <a href="#">Form of Non-Qualified Stock Option Agreement for Named Executive Officers and certain Executive Officers of ACGL and subsidiaries†</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 10.5        | <a href="#">Form of Performance Restricted Share Agreement for Named Executive Officers and certain Executive Officers of ACGL and subsidiaries†</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 10.6        | <a href="#">Form of Non-Employee Director Restricted Share Agreement†</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10.7        | <a href="#">Restricted Share Agreement, dated May 9, 2018, between ACGL and Constantine Iordanou†</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10.8        | <a href="#">Non-Qualified Stock Option Agreement, dated May 9, 2018, between ACGL and Constantine Iordanou†</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 15          | <a href="#">Accountants' Awareness Letter (regarding unaudited interim financial information)</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 31.1        | <a href="#">Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 31.2        | <a href="#">Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 32.1        | <a href="#">Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 32.2        | <a href="#">Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 101         | The following financial information from Arch Capital Group Ltd.'s Quarterly Report for the quarter ended June 30, 2018 formatted in XBRL: (i) Consolidated Balance Sheets at June 30, 2018 and December 31, 2017; (ii) Consolidated Statements of Income for the three and six month periods ended June 30, 2018 and 2017; (iii) Consolidated Statements of Comprehensive Income for the three and six month periods ended June 30, 2018 and 2017; (iv) Consolidated Statements of Changes in Shareholders' Equity for the six month periods ended June 30, 2018 and 2017; (v) Consolidated Statements of Cash Flows for the six month periods ended June 30, 2018 and 2017; and (vi) Notes to Consolidated Financial Statements. |
| †           | Management contract or compensatory plan or arrangement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

**SIGNATURES**

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

**ARCH CAPITAL GROUP LTD.**  
**(REGISTRANT)**

Date: August 8, 2018

/s/ Marc Grandisson  
\_\_\_\_\_  
Marc Grandisson  
President and Chief Executive Officer (Principal Executive Officer)

Date: August 8, 2018

/s/ François Morin  
\_\_\_\_\_  
François Morin  
Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)

ARCH CAPITAL GROUP LTD.

2018 LONG TERM INCENTIVE AND SHARE AWARD PLAN

---

ARCH CAPITAL GROUP LTD.  
2018 LONG TERM INCENTIVE AND SHARE AWARD PLAN

1. Purposes. The purposes of the 2018 Long Term Incentive and Share Award Plan are to advance the interests of Arch Capital Group Ltd. and its shareholders by providing a means to attract, retain, and motivate employees and directors of the Company its subsidiaries and affiliates, to provide for competitive compensation opportunities, to encourage long-term service, to recognize individual contributions and reward achievement of performance goals, and to promote the creation of long-term value for shareholders by aligning the interests of such persons with those of shareholders.

2. Definitions. For purposes of the Plan, the following terms shall be defined as set forth below:

“Affiliate” means any entity other than the Company and its Subsidiaries that is designated by the Board or the Committee as a participating employer under the Plan, provided that the Company directly or indirectly owns at least 20% of the combined voting power of all classes of stock of such entity or at least 20% of the ownership interests in such entity.

“Award” means any Option, SAR, Restricted Share, Restricted Share Unit, Performance Share, Performance Unit, Dividend Equivalent or Other Share-Based Award granted to an Eligible Person under the Plan.

“Award Agreement” means any written agreement, contract, or other instrument or document evidencing an Award.

“Beneficiary” means the person, persons, trust or trusts which have been designated by an Eligible Person in his or her most recent written beneficiary designation filed with the Company to receive the benefits specified under this Plan upon the death of the Eligible Person, or, if there is no designated Beneficiary or surviving designated Beneficiary, then the person, persons, trust or trusts entitled by will or the laws of descent and distribution to receive such benefits.

“Board” means the Board of Directors of the Company.

“Cause” means, with respect to an Eligible Person, (a) theft or embezzlement by the Eligible Person with respect to the Company, its Subsidiaries or Affiliates; (b) malfeasance or negligence in the performance of the Eligible Person’s duties; (c) the commission by the Eligible Person of any felony or any crime involving moral turpitude; (d) willful or prolonged absence from work by the Eligible Person (other than by reason of disability due to physical or mental illness); (e) failure, neglect or refusal by the Eligible Person to adequately perform his or her duties and responsibilities as determined by the Company; (f) continued and habitual use of alcohol by the Eligible Person to an extent which materially impairs the Eligible Person’s performance of his or her duties without the same being corrected within ten (10) days after being given written notice thereof; or (g) the Eligible Person’s use of illegal drugs without the same being corrected within ten (10) days after being given written notice thereof. Notwithstanding the foregoing, in the event that an Eligible Person is party to an employment or similar agreement with the Company or any of its Subsidiaries or Affiliates and such agreement contains a definition of “Cause,” the definition of “Cause” set forth above shall be deemed replaced and superseded,

with respect to such Eligible Person, by the definition of “Cause” used in such employment or similar agreement.

“Change in Control”, unless otherwise defined in an applicable Award Agreement, shall mean:

- (A) any person (within the meaning of the Exchange Act), other than a Permitted Person, is or becomes the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of Voting Securities representing 50% or more of the total voting power or value of all the then outstanding Voting Securities; or
- (B) the individuals who, as of the date hereof, constitute the Board together with those who become directors subsequent to such date and whose recommendation, election or nomination for election to the Board was approved by a vote of at least a majority of the directors then still in office who either were directors as of such date or whose recommendation, election or nomination for election was previously so approved, cease for any reason to constitute a majority of the members of the Board; or
- (C) the consummation of a merger, consolidation, recapitalization, liquidation, sale or disposition by the Company of all or substantially all of the Company's assets, or reorganization of the Company, other than any such transaction which would (x) result in more than 50% of the total voting power and value represented by the voting securities of the surviving entity outstanding immediately after such transaction being beneficially owned by the former shareholders of the Company and (y) not otherwise be deemed a Change in Control under subparagraphs (A) or (B) of this definition.

Notwithstanding the foregoing, to the extent necessary to comply with Section 409A of the Code with respect to the payment of “nonqualified deferred compensation” (as defined for purposes of Section 409A of the Code), “Change in Control” shall be limited to a “change in control event” as defined under Section 409A of the Code.

“Code” means the Internal Revenue Code of 1986, as amended from time to time. References to any provision of the Code shall be deemed to include successor provisions thereto and regulations thereunder.

“Committee” means the Compensation Committee of the Board, or such other Board committee or subcommittee (or the entire Board) as may be designated by the Board to administer the Plan.

“Company” means Arch Capital Group Ltd., a corporation organized under the laws of Bermuda, or any successor corporation.

“Director” means a member of the Board who is not an employee of the Company, a Subsidiary or an Affiliate.

“Dividend Equivalent” means a right, granted under the Plan, to receive cash, Shares, or other property equal in value to dividends paid with respect to a specified number of Shares.

Dividend Equivalents may be awarded on a free-standing basis or in connection with another Award, and may be paid currently or on a deferred basis.

“Eligible Person” means (i) an employee of the Company, a Subsidiary or an Affiliate, including any director who is an employee, and (ii) any Director. Notwithstanding any provisions of this Plan to the contrary, an Award may be granted to an employee, in connection with his or her hiring or retention prior to the date the employee first performs services for the Company, a Subsidiary or an Affiliate; provided, however, that any such Award shall not become vested or exercisable prior to the date the employee first performs such services.

“Exchange Act” means the Securities Exchange Act of 1934, as amended from time to time. References to any provision of the Exchange Act shall be deemed to include successor provisions thereto and regulations thereunder.

“Fair Market Value” means, with respect to Shares or other property, the fair market value of such Shares or other property determined by such methods or procedures as shall be established from time to time by the Committee. Unless otherwise determined by the Committee in good faith, the Fair Market Value of Shares shall mean the closing price per Share on the date (or, if the Shares were not traded on that day, the next preceding day that the Shares were traded) on the principal exchange or market system on which the Shares are traded, as such prices are officially quoted thereon.

“ISO” means any Option intended to be and designated as an incentive stock option within the meaning of Section 422 of the Code.

“NQSO” means any Option that is not an ISO.

“Option” means a right, granted under Section 5(b), to purchase Shares.

“Other Share-Based Award” means a right, granted under Section 5(h), that relates to or is valued by reference to Shares.

“Participant” means an Eligible Person who has been granted an Award under the Plan.

“Performance Share” means a performance share granted under Section 5(f).

“Performance Unit” means a performance unit granted under Section 5(f).

“Permitted Persons” means (A) the Company; (B) any Related Party; or (C) any group (as defined in Rule 13b-3 under the Exchange Act) comprised of any or all of the foregoing.

“Plan” means this 2018 Long Term Incentive and Share Award Plan.

“Related Party” means (A) a majority-owned subsidiary of the Company; (B) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any majority-owned subsidiary of the Company; or (C) any entity, 50% or more of the voting power of which is owned directly or indirectly by the shareholders of the Company in substantially the same proportion as their ownership of Voting Securities immediately prior to the transaction.

“Restricted Shares” means an Award of Shares under Section 5(d) that may be subject to certain restrictions and to a risk of forfeiture.

“Restricted Share Unit” means a right, granted under Section 5(e), to receive Shares or cash at the end of a specified deferral period.

“Rule 16b-3” means Rule 16b-3, as from time to time in effect and applicable to the Plan and Participants, promulgated by the Securities and Exchange Commission under Section 16 of the Exchange Act.

“SAR” or “Share Appreciation Right” means the right, granted under Section 5(c), to be paid an amount measured by the difference between the exercise price of the right and the Fair Market Value of Shares on the date of exercise of the right, with payment to be made in cash, Shares, or property as specified in the Award or determined by the Committee.

“Shares” means common shares, \$.0033 par value per share, of the Company, and such other securities as may be substituted for Shares pursuant to Section 4(c) hereof.

“Subsidiary” means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company if each of the corporations (other than the last corporation in the unbroken chain) owns shares possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in the chain.

“Voting Security” means any security of the Company which carries the right to vote generally in the election of directors.

### 3. Administration.

(a) Authority of the Committee. The Plan shall be administered by the Committee, and the Committee shall have full and final authority to take the following actions, in each case subject to and consistent with the provisions of the Plan:

- (i) to select Eligible Persons to whom Awards may be granted;
- (ii) to designate Affiliates;
- (iii) to determine the type or types of Awards to be granted to each Eligible Person;
- (iv) to determine the type and number of Awards to be granted, the number of Shares to which an Award may relate, the terms and conditions of any Award granted under the Plan (including, but not limited to, any exercise price, grant price, or purchase price, any restriction or condition, any schedule for lapse of restrictions or conditions relating to transferability or forfeiture, exercisability, or settlement of an Award, and waivers of performance or vesting conditions relating to an Award, based in each case on such considerations as the Committee shall determine), and all other matters to be determined in connection with an Award;
- (v) to determine whether, to what extent, and under what circumstances an Award may be settled, or the exercise price of an Award may be paid, in cash, Shares, other Awards, or other property, or an Award may be cancelled, forfeited, exchanged, or surrendered;

(vi) to determine whether, to what extent, and under what circumstances cash, Shares, other Awards, or other property payable with respect to an Award will be deferred either automatically, at the election of the Committee, or at the election of the Eligible Person; provided that such deferral shall be structured with the intent to be in compliance with Section 409A of the Code;

(vii) to prescribe the form of each Award Agreement, which need not be identical for each Eligible Person;

(viii) to adopt, amend, suspend, waive, and rescind such rules and regulations and appoint such agents as the Committee may deem necessary or advisable to administer the Plan;

(ix) to correct any defect or supply any omission or reconcile any inconsistency in the Plan and to construe and interpret the Plan and any Award, rules and regulations, Award Agreement, or other instrument hereunder;

(x) to extend the period during which an Award is exercisable; and

(xi) to make all other decisions and determinations as may be required under the terms of the Plan or as the Committee may deem necessary or advisable for the administration of the Plan.

(b) Manner of Exercise of Committee Authority. The Committee shall have sole discretion in exercising its authority under the Plan. Any action of the Committee with respect to the Plan shall be final, conclusive, and binding on all persons, including the Company, Subsidiaries, Affiliates, Eligible Persons, any person claiming any rights under the Plan from or through any Eligible Person, and shareholders. The express grant of any specific power to the Committee, and the taking of any action by the Committee, shall not be construed as limiting any power or authority of the Committee. The Committee may delegate to officers or managers of the Company or any Subsidiary or Affiliate the authority, subject to such terms as the Committee shall determine, to perform administrative functions and, with respect to Awards granted to persons not subject to Section 16 of the Exchange Act, to perform such other functions as the Committee may determine, to the extent permitted under Rule 16b-3 (if applicable) and applicable law. Notwithstanding any provision of this Plan to the contrary, the Committee may grant Awards which are subject to the approval of the Board; provided that an Award shall be subject to Board approval only if the Committee expressly so states.

(c) Limitation of Liability. Each member of the Committee shall be entitled to, in good faith, rely or act upon any report or other information furnished to him or her by any officer or other employee of the Company or any Subsidiary or Affiliate, the Company's independent certified public accountants, or other professional retained by the Company to assist in the administration of the Plan. No member of the Committee, and no officer or employee of the Company acting on behalf of the Committee, shall be personally liable for any action, determination, or interpretation taken or made in good faith with respect to the Plan, and all members of the Committee and any officer or employee of the Company acting on their behalf shall, to the extent permitted by law, be fully indemnified and protected by the Company with respect to any such action, determination, or interpretation.

(d) No Option or SAR Repricing Without Shareholder Approval. Except as provided in the first sentence of Section 4(c) hereof relating to certain anti-dilution adjustments, unless the approval of shareholders of the Company is obtained, (i) Options and SARs issued under the Plan shall not be

amended to lower their exercise price, (ii) Options and SARs issued under the Plan will not be exchanged for other Options or SARs with lower exercise prices, (iii) Options and SARs issued under the Plan with an exercise price in excess of the Fair Market Value of the underlying Shares will not be exchanged for cash or other property, and (iv) no other action shall be taken with respect to Options or SARs that would be treated as a repricing under the rules of the principal stock exchange or market system on which the Shares are listed.

(e) Limitation on Committee's Authority Under 409A. Anything in this Plan to the contrary notwithstanding, the Committee's authority to modify outstanding Awards shall be limited to the extent necessary so that the existence of such authority does not (i) cause an Award that is not otherwise deferred compensation subject to Section 409A of the Code to become deferred compensation subject to Section 409A of the Code or (ii) cause an Award that is otherwise deferred compensation subject to Section 409A of the Code to fail to meet the requirements prescribed by Section 409A of the Code.

(f) Award Vesting Limitations. Notwithstanding any provision of the Plan to the contrary, the Awards will be granted with vesting periods of not less than one year following the date the applicable Award is granted (other than in the case of death or disability); provided, however, that, notwithstanding the foregoing, Awards that result in the issuance of an aggregate of up to 5% of the Shares reserved for issuance under Section 4(a) may be granted to Eligible Persons without regard to such minimum vesting provisions.

#### 4. Shares Subject to the Plan.

(a) Subject to adjustment as provided in Section 4(c) hereof, the total number of Shares reserved for issuance under the Plan shall be 11,500,000; provided, however, that (I) any Shares issued under Options or SARs shall be counted against this limit on a one-for-one basis, and any Shares issued as or under Awards other than Options or SARs shall be counted against this limit as 3.6 Shares for every one (1) Share subject to such Award, and (II) subject to adjustment as provided in Section 4(c) hereof, no more than 2,000,000 Shares may be issued as ISOs. No Award may be granted if the number of Shares to which such Award relates, when added to the number of Shares previously issued under the Plan, exceeds the number of Shares reserved under the applicable provisions of the preceding sentence. If any Awards are forfeited, cancelled, terminated, exchanged or surrendered or such Award is settled in cash or otherwise terminates without a distribution of Shares to the Participant, any Shares counted against the number of Shares reserved and available under the applicable provisions of the Plan with respect to such Award shall, to the extent of any such forfeiture, settlement, termination, cancellation, exchange or surrender, again be available for Awards under the Plan, and any Shares that again become available for grant pursuant to this Section 4(a) shall be added back as one (1) Share if such Shares were subject to Options or SARs and as 3.6 Shares if such Shares were subject to Awards other than Options or SARs; provided, however, that Shares subject to an Award under the Plan may not again be made available for issuance under the Plan if such Shares are (x) Shares that were subject to an Option or a stock-settled SAR and were not issued upon the net settlement or net exercise of such Option or SAR, or (y) Shares delivered to or withheld by the Company to pay the exercise price or the withholding taxes under Options, SARs or other Awards. Upon the exercise of any Award granted in tandem with any other Awards, such related Awards shall be cancelled to the extent of the number of Shares as to which the Award is exercised.

(b) Any Shares distributed pursuant to an Award may consist, in whole or in part, of authorized and unissued Shares or treasury Shares including Shares acquired by purchase in the open market or in private transactions.

(c) In the event that the Committee shall determine that any dividend in Shares, recapitalization, Share split, reverse split, reorganization, merger, consolidation, spin-off, combination, repurchase, share exchange, extraordinary distribution or other similar corporate transaction or event, affects the Shares such that an adjustment is appropriate in order to prevent dilution or enlargement of the rights of Eligible Persons under the Plan, then the Committee shall make such equitable changes or adjustments as it deems appropriate and, in such manner as it may deem equitable, (i) adjust any or all of (x) the number and kind of shares which may thereafter be issued under the Plan, (y) the number and kind of shares, other securities or other consideration issued or issuable in respect of outstanding Awards, and (z) the exercise price, grant price, or purchase price relating to any Award, or (ii) provide for a distribution of cash or property in respect of any Award; provided, however, in each case that, with respect to ISOs, such adjustment shall be made in accordance with Section 424(a) of the Code, unless the Committee determines otherwise; provided further, however, that no adjustment shall be made pursuant to this Section 4(c) that causes any Award that is not otherwise deferred compensation subject to Section 409A of the Code to be treated as deferred compensation pursuant to Section 409A of the Code. In addition, the Committee is authorized to make adjustments in the terms and conditions of, and the criteria and performance objectives, if any, included in, Awards in recognition of unusual or non-recurring events (including, without limitation, events described in the preceding sentence) affecting the Company or any Subsidiary or Affiliate or the financial statements of the Company or any Subsidiary or Affiliate, or in response to changes in applicable laws, regulations, or accounting principles.

#### 5. Specific Terms of Awards.

(a) General. Awards may be granted on the terms and conditions set forth in this Section 5. In addition, the Committee may impose on any Award or the exercise thereof, at the date of grant or thereafter (subject to Section 8(d)), such additional terms and conditions, not inconsistent with the provisions of the Plan, as the Committee shall determine, including terms regarding forfeiture of Awards or continued exercisability of Awards in the event of termination of service by the Eligible Person.

(b) Options. The Committee is authorized to grant Options, which may be NQSOs or ISOs, to Eligible Persons on the following terms and conditions:

(i) Exercise Price. The exercise price per Share purchasable under an Option shall be determined by the Committee; provided, however, that the exercise price per Share of an Option shall not be less than the Fair Market Value of a Share on the date of grant of the Option. The Committee may, without limitation, set an exercise price that is based upon achievement of performance criteria if deemed appropriate by the Committee.

(ii) Option Term. The term of each Option shall be determined by the Committee, but such term shall not exceed ten years from the date of grant of the Option.

(iii) Time and Method of Exercise. The Committee shall determine the time or times at which an Option may be exercised in whole or in part (including, without limitation, upon achievement of performance criteria if deemed appropriate by the Committee), the methods by which such exercise price may be paid or deemed to be paid (including, without limitation, broker-assisted exercise arrangements), the form of such payment (including, without limitation, cash, Shares or other property), and the methods by which Shares will be delivered or deemed to be delivered to Eligible Persons.

(iv) ISOs. The terms of any ISO granted under the Plan shall comply in all respects with the provisions of Section 422 of the Code, including but not limited to the requirement that no ISO shall be granted more than ten years after the earlier of the date of adoption or shareholder approval of the Plan. ISOs may only be granted to employees of the Company or a Subsidiary.

(c) SARs. The Committee is authorized to grant SARs (Share Appreciation Rights) to Eligible Persons on the following terms and conditions:

(i) Right to Payment. A SAR shall confer on the Eligible Person to whom it is granted a right to receive with respect to each Share subject thereto, upon exercise thereof, the excess of (1) the Fair Market Value of one Share on the date of exercise over (2) the exercise price per Share of the SAR as determined by the Committee as of the date of grant of the SAR (which shall not be less than the Fair Market Value per Share on the date of grant of the SAR and, in the case of a SAR granted in tandem with an Option, shall be equal to the exercise price of the underlying Option).

(ii) Other Terms. The Committee shall determine the time or times at which a SAR may be exercised in whole or in part (which shall not be more than ten years after the date of grant of the SAR), the method of exercise, method of settlement, form of consideration payable in settlement, method by which Shares will be delivered or deemed to be delivered to Eligible Persons, whether or not a SAR shall be in tandem with any other Award, and any other terms and conditions of any SAR. Unless the Committee determines otherwise, a SAR (1) granted in tandem with a NQSO may be granted at the time of grant of the related NQSO or at any time thereafter or (2) granted in tandem with an ISO may only be granted at the time of grant of the related ISO.

(d) Restricted Shares. The Committee is authorized to grant Restricted Shares to Eligible Persons on the following terms and conditions:

(i) Issuance and Restrictions. Restricted Shares shall be subject to such restrictions on transferability and other restrictions as the Committee may impose, which restrictions may lapse separately or in combination at such times, under such circumstances (including, without limitation, upon achievement of performance criteria if deemed appropriate by the Committee), in such installments or otherwise, as the Committee may determine. Except to the extent restricted under the Award Agreement relating to the Restricted Shares, an Eligible Person granted Restricted Shares shall have all of the rights of a shareholder including, without limitation, the right to vote Restricted Shares and the right to receive dividends thereon.

(ii) Forfeiture. Except as otherwise determined by the Committee, upon termination of service during any applicable restriction period, Restricted Shares and any accrued but unpaid dividends or Dividend Equivalents that are at that time subject to restrictions shall be forfeited; provided, however, that the Committee may determine that restrictions or forfeiture conditions relating to Restricted Shares will be waived in whole or in part in the event of terminations resulting from specified causes.

(iii) Certificates for Shares. Restricted Shares granted under the Plan may be evidenced in such manner as the Committee shall determine. If certificates representing Restricted Shares are registered in the name of the Eligible Person, such certificates shall bear an appropriate legend referring to the terms, conditions, and restrictions applicable to such Restricted

Shares, and, unless otherwise determined by the Committee, the Company shall retain physical possession of the certificate.

(iv) Dividends. Dividends paid on Restricted Shares shall be either paid at the dividend payment date, or deferred for payment to such date, and subject to such conditions, as determined by the Committee, in cash or in restricted or unrestricted Shares having a Fair Market Value equal to the amount of such dividends. Unless otherwise determined by the Committee, Shares distributed in connection with a Share split or dividend in Shares, and other property distributed as a dividend, shall be subject to restrictions and a risk of forfeiture to the same extent as the Restricted Shares with respect to which such Shares or other property has been distributed.

(e) Restricted Share Units. The Committee is authorized to grant Restricted Share Units to Eligible Persons, subject to the following terms and conditions:

(i) Award and Restrictions. Delivery of Shares or cash, as the case may be, will occur upon expiration of the deferral period specified for Restricted Share Units by the Committee (or, if permitted by the Committee, as elected by the Eligible Person). In addition, Restricted Share Units shall be subject to such restrictions as the Committee may impose (including, without limitation, the achievement of performance criteria if deemed appropriate by the Committee), which restrictions may lapse at the expiration of the deferral period or at earlier or later specified times, separately or in combination, in installments or otherwise, as the Committee may determine.

(ii) Forfeiture. Except as otherwise determined by the Committee, upon termination of service (as determined under criteria established by the Committee) during the applicable deferral period or portion thereof to which forfeiture conditions apply (as provided in the Award Agreement evidencing the Restricted Share Units), or upon failure to satisfy any other conditions precedent to the delivery of Shares or cash to which such Restricted Share Units relate, all Restricted Share Units that are at that time subject to deferral or restriction shall be forfeited; provided, however, that the Committee may determine that restrictions or forfeiture conditions relating to Restricted Share Units will be waived in whole or in part in the event of termination resulting from specified causes.

(iii) Dividend Equivalents. Unless otherwise determined by the Committee at the date of grant, Dividend Equivalents on the specified number of Shares covered by a Restricted Share Unit shall be either (A) paid with respect to such Restricted Share Unit at the dividend payment date in cash or in restricted or unrestricted Shares having a Fair Market Value equal to the amount of such dividends, or (B) deferred with respect to such Restricted Share Unit and the amount or value thereof automatically deemed reinvested in additional Restricted Share Units or other Awards, as the Committee shall determine.

(f) Performance Shares and Performance Units. The Committee is authorized to grant Performance Shares or Performance Units or both to Eligible Persons on the following terms and conditions:

(i) Performance Period. The Committee shall determine a performance period (the "Performance Period") of one or more years or other periods and shall determine the performance objectives for grants of Performance Shares and Performance Units. Performance objectives may vary from Eligible Person to Eligible Person and shall be based upon the performance criteria as the Committee may deem appropriate. The performance objectives may

be determined by reference to the performance of the Company, or of a Subsidiary or Affiliate, or of a division or unit of any of the foregoing. Performance Periods may overlap and Eligible Persons may participate simultaneously with respect to Awards for which different Performance Periods are prescribed.

(ii) Award Value. The Committee shall determine for each Eligible Person or group of Eligible Persons with respect to that Performance Period the range of number of Shares, if any, in the case of Performance Shares, and the range of dollar values, if any, in the case of Performance Units, which may be fixed or may vary in accordance with such performance or other criteria specified by the Committee, which shall be paid to an Eligible Person as an Award if the relevant measure of Company performance for the Performance Period is met.

(iii) Significant Events. If during the course of a Performance Period there shall occur significant events as determined by the Committee which the Committee expects to have a substantial effect on a performance objective during such period, the Committee may revise such objective.

(iv) Forfeiture. Except as otherwise determined by the Committee, upon termination of service during the applicable Performance Period, Performance Shares and Performance Units for which the Performance Period was prescribed shall be forfeited; provided, however, that the Committee may determine that restrictions or forfeiture conditions relating to Performance Shares and Performance Units will be waived in whole or in part in the event of terminations resulting from specified causes.

(v) Payment. Each Performance Share or Performance Unit may be paid in whole Shares, or cash, or a combination of Shares and cash either as a lump sum payment or in installments, all as the Committee shall determine, at the time of grant of the Performance Share or Performance Unit or otherwise, commencing at the time determined by the Committee.

(g) Dividend Equivalents. The Committee is authorized to grant Dividend Equivalents to Eligible Persons. The Committee may provide, at the date of grant or thereafter, that Dividend Equivalents shall be paid or distributed when accrued or shall be deemed to have been reinvested in additional Shares, or other investment vehicles as the Committee may specify, provided that unless otherwise determined by the Committee, Dividend Equivalents (other than freestanding Dividend Equivalents) shall be subject to all conditions and restrictions of any underlying Awards to which they relate.

(h) Other Share-Based Awards. The Committee is authorized, subject to limitations under applicable law, to grant to Eligible Persons such other Awards that may be denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, Shares, as deemed by the Committee to be consistent with the purposes of the Plan, including, without limitation, other rights convertible or exchangeable into Shares, purchase rights for Shares, Awards with value and payment contingent upon performance of the Company or any other factors designated by the Committee, and Awards valued by reference to the performance of specified Subsidiaries or Affiliates. The Committee shall determine the terms and conditions of such Awards consistent with the provisions of this Plan. Shares delivered pursuant to an Award in the nature of a purchase right granted under this Section 5(h) shall be purchased for such consideration, paid for at such times, by such methods, and in such forms, including, without limitation, cash, Shares or other property, as the Committee shall determine. Cash

awards, as an element of or supplement to any other Award under the Plan, shall also be authorized pursuant to this Section 5(h).

6. Certain Provisions Applicable to Awards.

(a) Stand-Alone, Additional, Tandem and Substitute Awards. Awards granted under the Plan may, in the discretion of the Committee, be granted to Eligible Persons either alone or in addition to, in tandem with, or in exchange or substitution for, any other Award granted under the Plan or any award granted under any other plan or agreement of the Company, any Subsidiary or Affiliate, or any business entity to be acquired by the Company or a Subsidiary or Affiliate, or any other right of an Eligible Person to receive payment from the Company or any Subsidiary or Affiliate. Awards may be granted in addition to or in tandem with such other Awards or awards, and may be granted either as of the same time as or a different time from the grant of such other Awards or awards. Subject to the provisions of Section 3(d) hereof prohibiting Option and SAR repricing without shareholder approval, the per Share exercise price of any Option, grant price of any SAR, or purchase price of any other Award conferring a right to purchase Shares which is granted, in connection with the substitution of awards granted under any other plan or agreement of the Company or any Subsidiary or Affiliate, or any business entity to be acquired by the Company or any Subsidiary or Affiliate, shall be determined by the Committee, in its discretion.

(b) Term of Awards. The term of each Award granted to an Eligible Person shall be for such period as may be determined by the Committee; provided, however, that in no event shall the term of any Option or SAR exceed a period of ten years from the date of its grant (or, in the case of an ISO, such shorter period as may be applicable under Section 422 of the Code).

(c) Form of Payment Under Awards. Subject to the terms of the Plan and any applicable Award Agreement, payments to be made by the Company or a Subsidiary or Affiliate upon the grant, maturation, or exercise of an Award may be made in such forms as the Committee shall determine at the date of grant or thereafter, including, without limitation, cash, Shares, or other property, and may be made in a single payment or transfer, in installments, or on a deferred basis; provided that any such deferral shall be intended to be in compliance with Section 409A of the Code. The Committee may make rules relating to installment or deferred payments with respect to Awards, including the rate of interest to be credited with respect to such payments, and the Committee may require deferral of payment under an Award if, in the sole judgment of the Committee, it may be necessary in order to avoid nondeductibility of the payment under Section 162(m) of the Code.

(d) Nontransferability. Except as set forth below and except for vested Shares, Awards shall not be transferable by an Eligible Person except by will or the laws of descent and distribution (except pursuant to a Beneficiary designation) and shall be exercisable during the lifetime of an Eligible Person only by such Eligible Person or his guardian or legal representative. Notwithstanding the foregoing, if the Committee expressly so provides in the applicable Award agreement (at the time of grant or at any time thereafter), an Award (other than an ISO) granted hereunder may be transferred by a Participant to members of his or her “immediate family”, to a trust established for the exclusive benefit of solely one or more members of the Participant’s “immediate family”, or to a partnership, limited liability company or other entity under which the only partners, members or equity holders are one or more members of the Participant’s “immediate family.” Any Award held by the transferee will continue to be subject to the same terms and conditions that were applicable to the Award immediately prior to the transfer, except that the Award will be transferable by the transferee only by will or the laws of descent and distribution. For purposes hereof, “immediate family” means the Participant’s children, stepchildren,

grandchildren, parents, stepparents, grandparents, spouse, siblings (including half brothers and sisters), in-laws, and relationships arising because of legal adoption. An Eligible Person's rights under the Plan may not be pledged, mortgaged, hypothecated, or otherwise encumbered, and shall not be subject to claims of the Eligible Person's creditors.

(e) Restrictive Covenants. The Committee may, by way of the Award Agreements or otherwise, establish such other terms, conditions, restrictions and/or limitations, if any, of any Award, provided they are not inconsistent with the Plan, including, without limitation, the requirement that the Participant not engage in competition with, solicit customers or employees of, or disclose or use confidential information of, the Company or its Affiliates.

(f) No Dividends or Dividend Equivalents on Unvested Awards. Notwithstanding any provision of this Plan to the contrary, dividends and Dividend Equivalents shall not be paid with respect to unvested Awards prior to the time of vesting of the underlying Award, or portion thereof, with respect to which the dividend or Dividend Equivalent is accrued.

7. Change in Control Provisions. Unless otherwise provided in the applicable Award Agreement, notwithstanding any other provision of this Plan to the contrary, upon a Change in Control:

(a) Awards Assumed or Substituted by Surviving Entity. With respect to Awards assumed by the surviving entity or otherwise equitably converted or substituted in connection with a Change in Control: if within two years after the effective date of the Change in Control, a Participant's employment is terminated without Cause or the Participant resigns for Good Reason, then (i) all of that Participant's outstanding Options, SARs and other Awards in the nature of rights that may be exercised shall become fully vested and exercisable, (ii) all time-based vesting restrictions on his or her outstanding Awards shall lapse, and (iii) the payout level under all of that Participant's performance-based Awards that were outstanding immediately prior to effective time of the Change in Control shall be determined and deemed to have been earned as of the date of termination based upon the greater of: (A) an assumed achievement of all relevant performance goals at the "target" level pro-rated based upon the number of days within the performance period that have elapsed prior to the termination of employment date, or (B) the actual level of achievement of all relevant performance goals (measured as of the latest date immediately preceding the date of termination for which performance can, as a practical matter, may be determined), and, in either such case, there shall be a payout to such Participant within sixty (60) days following the termination of employment date (unless a later date is required by Section 8(l) hereof). With regard to each Award, a Participant shall not be considered to have resigned for Good Reason unless either (i) the Award Agreement includes such provision (and Good Reason shall be as defined therein), or (ii) the Participant is party to an employment, severance or similar agreement with the Company or an Affiliate that includes provisions in which the Participant is permitted to resign for Good Reason (and Good Reason shall be as defined therein). Any Awards shall thereafter continue or lapse in accordance with the other provisions of the Plan and the Award Agreement. To the extent that this provision causes ISOs to exceed the dollar limitation set forth in Code Section 422(d), the excess Options shall be deemed to be NQSOs.

(b) Awards not Assumed or Substituted by Surviving Entity. Upon the occurrence of a Change in Control, and except with respect to any Awards assumed by the surviving entity or otherwise equitably converted or substituted in connection with the Change in Control in a manner approved by the Committee or the Board: (i) outstanding Options, SARs, and other Awards in the nature of rights that may be exercised shall become fully vested and exercisable, (ii) time-based vesting restrictions on outstanding Awards shall immediately lapse and such Awards shall become vested in full, and (iii) the target payout

opportunities attainable under outstanding performance-based Awards shall be deemed to have been fully earned as of the effective date of the Change in Control based upon the greater of: (A) an assumed achievement of all relevant performance goals at the “target” level pro-rated based upon the number of days within the performance period that have elapsed prior to the Change in Control, or (B) the actual level of achievement of all relevant performance goals (measured as of the latest date immediately preceding the Change in Control for which performance can, as a practical matter, be determined), and, in either such case, there shall be a payout to Participants within sixty (60) days following the Change in Control (unless a later date is required by Section 8(l) hereof). Any Awards shall thereafter continue or lapse in accordance with the other provisions of the Plan and the Award agreement. To the extent that this provision causes ISOs to exceed the dollar limitation set forth in Code Section 422(d), the excess Options shall be deemed to be NQSOs.

8. General Provisions.

(a) Compliance with Legal and Trading Requirements. The Plan, the granting and exercising of Awards thereunder, and the other obligations of the Company under the Plan and any Award Agreement, shall be subject to all applicable federal, state and foreign laws, rules and regulations, and to such approvals by any stock exchange, regulatory or governmental agency as may be required. The Company, in its discretion, may postpone the issuance or delivery of Shares under any Award until completion of such stock exchange or market system listing or registration or qualification of such Shares or any required action under any state, federal or foreign law, rule or regulation as the Company may consider appropriate, and may require any Participant to make such representations and furnish such information as it may consider appropriate in connection with the issuance or delivery of Shares in compliance with applicable laws, rules and regulations. No provisions of the Plan shall be interpreted or construed to obligate the Company to register any Shares under federal, state or foreign law. The Shares issued under this Plan may be subject to such other restrictions on transfer as determined by the Committee.

(b) No Right to Continued Employment or Service. Neither the Plan nor any action taken thereunder shall be construed as giving any employee or director the right to be retained in the employ or service of the Company or any of its Subsidiaries or Affiliates, nor shall it interfere in any way with the right of the Company or any of its Subsidiaries or Affiliates to terminate any employee’s or director’s employment or service at any time.

(c) Taxes. The Company or any Subsidiary or Affiliate is authorized to withhold from any Award granted, any payment relating to an Award under the Plan, including from a distribution of Shares, or any payroll or other payment to an Eligible Person, amounts of withholding and other taxes due in connection with any transaction involving an Award, and to take such other action as the Committee may deem advisable to enable the Company and Eligible Persons to satisfy obligations for the payment of withholding taxes and other tax obligations relating to any Award. This authority shall include authority to withhold or receive Shares or other property and to make cash payments in respect thereof in satisfaction of an Eligible Person’s tax obligations; provided, however, that the amount of tax withholding to be satisfied by withholding Shares shall be limited to the minimum amount of taxes, including employment taxes, required to be withheld under applicable Federal, state and local law.

(d) Changes to the Plan and Awards. The Board may amend, alter, suspend, discontinue, or terminate the Plan or the Committee’s authority to grant Awards under the Plan without the consent of shareholders of the Company or Participants, except that any such amendment, alteration, suspension, discontinuation, or termination shall be subject to the approval of the Company’s

shareholders (i) to the extent such shareholder approval is required under the rules of any stock exchange or automated quotation system on which the Shares may then be listed or quoted, or (ii) as it applies to ISOs, to the extent such shareholder approval is required under Section 422 of the Code; provided, however, that, without the consent of an affected Participant, no amendment, alteration, suspension, discontinuation, or termination of the Plan may materially and adversely affect the rights of such Participant under any Award theretofore granted to him or her. The Committee may waive any conditions or rights under, amend any terms of, or amend, alter, suspend, discontinue or terminate, any Award theretofore granted, prospectively or retrospectively; provided, however, that, without the consent of a Participant, no amendment, alteration, suspension, discontinuation or termination of any Award may materially and adversely affect the rights of such Participant under any Award theretofore granted to him or her. Except as provided in the first sentence of Section 4(c) hereof relating to certain anti-dilution adjustments, unless the approval of shareholders of the Company is obtained, (i) Options and SARs issued under the Plan shall not be amended to lower their exercise price, (ii) Options and SARs issued under the Plan will not be exchanged for other Options or SARs with lower exercise prices, (iii) Options and SARs issued under the Plan with an exercise price in excess of the Fair Market Value of the underlying Shares will not be exchanged for cash or other property, and (iv) no other action shall be taken with respect to Options or SARs that would be treated as a repricing under the rules of the principal stock exchange or market system on which the Shares are listed.

(e) No Rights to Awards; No Shareholder Rights. No Eligible Person or employee shall have any claim to be granted any Award under the Plan, and there is no obligation for uniformity of treatment of Eligible Persons and employees. No Award shall confer on any Eligible Person any of the rights of a shareholder of the Company unless and until Shares are duly issued or transferred to the Eligible Person in accordance with the terms of the Award.

(f) Unfunded Status of Awards. The Plan is intended to constitute an “unfunded” plan for incentive compensation. With respect to any payments not yet made to a Participant pursuant to an Award, nothing contained in the Plan or any Award shall give any such Participant any rights that are greater than those of a general creditor of the Company; provided, however, that the Committee may authorize the creation of trusts or make other arrangements to meet the Company’s obligations under the Plan to deliver cash, Shares, other Awards, or other property pursuant to any Award, which trusts or other arrangements shall be consistent with the “unfunded” status of the Plan unless the Committee otherwise determines with the consent of each affected Participant.

(g) Nonexclusivity of the Plan. Neither the adoption of the Plan by the Board nor its submission to the shareholders of the Company for approval shall be construed as creating any limitations on the power of the Board to adopt such other incentive arrangements as it may deem desirable, including, without limitation, the granting of options and other awards otherwise than under the Plan, and such arrangements may be either applicable generally or only in specific cases.

(h) Not Compensation for Benefit Plans. No Award payable under this Plan shall be deemed salary or compensation for the purpose of computing benefits under any benefit plan or other arrangement of the Company for the benefit of its employees or directors unless the Company shall determine otherwise.

(i) No Fractional Shares. No fractional Shares shall be issued or delivered pursuant to the Plan or any Award. In the case of Awards to Eligible Persons, the Committee shall determine whether cash, other Awards, or other property shall be issued or paid in lieu of such fractional Shares or whether such fractional Shares or any rights thereto shall be forfeited or otherwise eliminated.

(j) Governing Law. The validity, construction, and effect of the Plan, any rules and regulations relating to the Plan, and any Award Agreement shall be determined in accordance with the laws of New York without giving effect to principles of conflict of laws.

(k) Effective Date; Plan Termination. The Plan shall become effective as of May 9, 2018 (the “Effective Date”), subject to approval by the shareholders of the Company. The Plan shall terminate as to future awards on February 28, 2028.

(l) Section 409A. Awards granted under the Plan are intended to comply with, or be exempt from, the applicable requirements of Section 409A and Section 457A of the Code and shall be limited, construed and interpreted in accordance with such intent. Although the Company does not guarantee any particular tax treatment, to the extent that any Award is subject to Section 409A of the Code, it shall be paid in a manner that is intended to comply with Section 409A of the Code, including regulations and any other guidance issued by the Secretary of the Treasury and the Internal Revenue Service with respect thereto. No payment that constitutes deferred compensation under Section 409A of the Code that would otherwise be made under the Plan or an Award Agreement upon a termination of service will be made or provided unless and until such termination is also a “separation from service,” as determined in accordance with Section 409A of the Code. Notwithstanding the foregoing or anything elsewhere in the Plan or an Award Agreement to the contrary, if a Participant is a “specified employee” as defined in Section 409A of the Code at the time of “separation from service” with respect to an Award, then with regard to any payment or benefit that is considered deferred compensation under Section 409A payable on account of a “separation from service” that is required to be delayed pursuant to Section 409A(a)(2)(B) of the Code (after taking into account any applicable exceptions to such requirement), the commencement of any payments or benefits under the Award shall be deferred until the expiration of the six (6)-month period measured from the date of the Participant’s “separation from service,” or, if earlier, the Participant’s death (or such other period as required to comply with Section 409A). In no event whatsoever shall the Company be liable for any additional tax, interest or penalties that may be imposed on a Participant by Sections 409A or 457A of the Code or any damages for failing to comply with Sections 409A or 457A of the Code.

(m) Titles and Headings. The titles and headings of the sections in the Plan are for convenience of reference only. In the event of any conflict, the text of the Plan, rather than such titles or headings, shall control.

## EMPLOYMENT AGREEMENT

EMPLOYMENT AGREEMENT (“**Agreement**”), dated as of February 1, 2018, between Arch Capital Group Ltd., a Bermuda corporation (the “**Company**”), and William Preston Hutchings (the “**Executive**”).

The parties hereto agree as follows:

### ARTICLE 1

#### DEFINITIONS

SECTION 1.01. *Definitions*. For purposes of this Agreement, the following terms have the meanings set forth below:

“**Accounting Firm**” has the meaning set forth in Section 12.10.

“**Affiliate**” means any Person, directly or indirectly, through one or more intermediaries, Controlling, Controlled by, or under common Control with the Company. For purposes hereof, (a) “Control” means the ownership, directly or indirectly, of (i) in the case of a corporation, Voting Securities (as defined below) representing 50% or more of the total voting power or value of all the then outstanding Voting Securities of such corporation or (ii) in the case of a partnership, limited liability company, association or other business entity (“Business Entity”), 50% or more of the partnership or other similar ownership interest of such Business Entity; and (b) “Voting Security” means any security of a corporation which carries the right to vote generally in the election of directors. For purposes of the definition of “Control,” (x) a Person will be deemed to have a 50% or more ownership interest in a Business Entity if such Person is allocated 50% or more of Business Entity gains or losses or controls the managing director or member or general partner of such Business Entity; and (y) “Controlling” and “Controlled” have meanings correlative thereto.

“**Base Salary**” has the meaning set forth in Section 4.01.

“**Bonus Amount**” means the greater of (i) the Executive’s target annual bonus for the year during which Notice of Termination is given, or (ii) the average of the Executive’s actual annual bonus for the three years immediately preceding the year during which Notice of Termination is given (or such lesser number of years in which the Executive was employed by the Company or its Affiliate).

“**Cause**” means (a) theft or embezzlement by the Executive with respect to the Company or its Affiliates; (b) malfeasance or gross negligence in the performance of the Executive’s duties; (c) the Executive’s conviction of any felony or any crime involving moral turpitude; (d) willful or prolonged absence from work by the Executive (other than by reason of disability due to physical or mental illness) or failure, neglect or refusal by the Executive to perform his duties and responsibilities without the same being corrected within ten (10) days after being given written notice thereof; (e) continued and habitual use of alcohol by the Executive to an extent which materially impairs the Executive’s performance of his duties; (f) the Executive’s use of illegal drugs; or (g) the material breach by the Executive of any of the covenants contained in this Agreement.

---

“ **Code** ” means the U.S. Internal Revenue Code of 1986, as amended.

“ **Confidential Information** ” means information that is not generally known to the public and that was or is used, developed or obtained by the Company or its Affiliates in connection with their business. It shall not include information (a) required to be disclosed by court or administrative order or called for in a subpoena or discovery request regular on its face, (b) lawfully obtainable from other sources or which is in the public domain through no fault of the Executive; or (c) the disclosure of which is consented to in writing by the Company.

“ **Date of Termination** ” has the meaning set forth in Section 5.01.

“ **Employment Period** ” has the meaning set forth in Section 2.01.

“ **Good Reason** ” means, without the Executive’s written consent and subject to the timely notice requirement and the Company’s opportunity to cure set forth in Section 5.05 below, (a) the material diminution of any material duties or responsibilities of the Executive; (b) a material reduction in the Executive’s Base Salary; or (c) any material breach by the Company of the provisions contained in this Agreement.

“ **Intellectual Property** ” has the meaning set forth in Section 7.01.

“ **Notice of Termination** ” has the meaning set forth in Section 5.05.

“ **Noncompetition Period** ” has the meaning set forth in Section 9.01.

“ **Nonsolicitation Period** ” has the meaning set forth in Section 9.02.

“ **Person** ” means an individual, a partnership, a corporation, a limited liability company, an association, a joint stock company, an estate, a trust, a joint venture, an unincorporated organization or a governmental entity or any department, agency or political subdivision thereof.

“ **Permanent Disability** ” means those circumstances where the Executive is unable to continue to perform the usual customary duties of his assigned job or as otherwise assigned in accordance with the provisions of this Agreement for a period of six (6) months in any twelve (12) month period because of physical, mental or emotional incapacity resulting from injury, sickness or disease. Any questions as to the existence of a Permanent Disability shall be determined by a qualified, independent physician selected by the Company and approved by the Executive (which approval shall not be unreasonably withheld). The determination of any such physician shall be final and conclusive for all purposes of this Agreement.

“ **Reimbursable Expenses** ” has the meaning set forth in Section 4.04.

“**Start Date**” has the meaning set forth in Section 2.01.

## ARTICLE 2

### EMPLOYMENT

SECTION 2.01. *Employment* . The Company shall employ the Executive, and the Executive shall accept employment with the Company, for the period beginning on February 1, 2018 (the “**Start**

**Date”** ) and ending on the Date of Termination as provided in Section 5.01 (the “ **Employment Period** ”). If the Executive fails to satisfy the condition set forth in the preceding sentence, he shall forfeit all rights hereunder.

### ARTICLE 3

#### POSITION AND DUTIES

SECTION 3.01. *Position and Duties* . During the Employment Period, the Executive shall serve as Senior Vice President and Chief Investment Officer of the Company and shall have such responsibilities, powers and duties as may from time to time be prescribed by the President & Chief Operating Officer of the Company; provided that such responsibilities, powers and duties are substantially consistent with those customarily assigned to individuals serving in such positions at comparable companies or as may be reasonably required by the conduct of the business of the Company. During the Employment Period the Executive shall devote substantially all of his working time and efforts to the business and affairs of the Company. The Executive shall not directly or indirectly render any services of a business, commercial or professional nature to any other person or for-profit organization not related to the business of the Company or its Affiliates, whether for compensation or otherwise, without prior written consent of the Company.

SECTION 3.02. *Work Location* . While employed by the Company hereunder, the Executive shall perform his duties (when not traveling or engaged elsewhere in the performance of his duties) at the offices of the Company in Bermuda. The Executive shall travel to such places on the business of the Company in such manner and on such occasions as the Company may from time to time reasonably require.

### ARTICLE 4

#### BASE SALARY AND BENEFITS

SECTION 4.01. *Base Salary* . During the Employment Period, the Executive’s base salary will be \$600,000 per annum (the “ **Base Salary** ”). The Base Salary will be payable monthly on the 15th day of each month, two weeks in arrears and two weeks in advance. Annually during the Employment Period the Company shall review with the Executive his job performance and compensation, and if deemed appropriate by the Board of Directors of the Company, in its discretion, the Executive’s Base Salary may be increased. Normal hours of employment are 8:30 a.m. to 5:00 p.m., Monday to Friday. The Executive’s salary has been computed to reflect that his regular duties are likely, from time to time, to require more than the normal hours per week and the Executive shall not be entitled to receive any additional remuneration for work outside normal hours.

SECTION 4.02. *Bonuses* . In addition to the Base Salary, the Executive shall be eligible to participate in an annual bonus plan on terms set forth from time to time by the Board of Directors of the Company. The Executive’s target annual bonus will be 100% of his Base Salary.

SECTION 4.03. *Benefits* . In addition to the Base Salary, and any bonuses payable to the Executive pursuant to this Agreement, the Executive shall be entitled to the following benefits during the Employment Period:

- (a) such major medical, life insurance and disability insurance coverage as is, or may during the Employment Period, be provided generally for other senior executive

officers of the Company as set forth from time to time in the applicable plan documents;

- (b) in addition to the usual public holidays and eight (8) paid days off for sick leave, a maximum of five (5) weeks of paid vacation annually during the term of the Employment Period (Section 11 of the Bermuda Employment Act 2000 shall otherwise not apply to the Executive's employment hereunder);
- (c) benefits under any plan or arrangement available generally for the senior executive officers of the Company, subject to and consistent with the terms and conditions and overall administration of such plans as set forth from time to time in the applicable plan documents;

SECTION 4.04. *Expenses*. The Company shall reimburse the Executive for all reasonable expenses incurred by him in the course of performing his duties under this Agreement which are consistent with the Company's policies in effect from time to time with respect to travel, entertainment and other business expenses (" **Reimbursable Expenses** "), subject to the Company's requirements with respect to reporting and documentation of expenses.

SECTION 4.05. *Share-Based Awards* . The Executive shall be eligible to participate in the Company's Long Term Incentive and Share Award Plans (and any similar plan adopted by the Company) under which share-based awards may be granted, as determined by the Board of Directors of the Company in its discretion.

## ARTICLE 5

### TERM AND TERMINATION

SECTION 5.01. *Term* . The expected term of this Agreement is for at least three years from the Start Date. Notwithstanding the foregoing, the Employment Period shall in all events end on the Date of Termination, whenever occurring. For purposes of this Agreement, the " Date of Termination " shall mean the first to occur of the following: (a) the six (6) month anniversary of the Company providing Notice of Termination (as defined below) without Cause to the Executive; (b) immediately upon the Company providing Notice of Termination for Cause to the Executive; (c) the six (6) month anniversary of the Executive providing Notice of Termination specifying his resignation for Good Reason to the Company; (d) the six (6) month anniversary of the Executive providing Notice of Termination by the Executive without Good Reason to the Company; (e) the fifth (5th) day following the Company providing Notice of Termination to the Executive as a result of the Executive's Permanent Disability; and (f) the date of Executive's death. In the event that there are circumstances which would give rise to a termination by the Company for Cause, the Company may, in its sole and exclusive discretion, treat such termination as a termination without Cause. Upon termination of the Executive's employment with the Company for any reason, the Executive shall resign from all positions and in all capacities with the Company and its Affiliates or from any other company or other Person with which the Executive is serving at the Company's request.

SECTION 5.02 *Resignation by the Executive Without Good Reason*. If the Employment Period shall be terminated as a result of the Executive's resignation or leaving of his employment, other than for Good Reason, the Executive shall continue to: (a) receive Base Salary and benefits set forth in Section 4.03 through the Date of Termination, except that any amount payable after the Executive's "separation from service" (within the meaning of Treas. Reg. Section 1.409A-1(h)) with the

Company will be subject to Section 12.09 below; (b) the Company will make a cash lump sum payment to the Executive equal to one half of the sum of (I) the Bonus Amount, and (II) a pro-rated portion of the Bonus Amount based on the number of days elapsed in the calendar year through the date Notice of Termination is given, which payment shall be made on the date that is sixty (60) days following the Date of Termination, and (c) receive reimbursement of all Reimbursable Expenses incurred by the Executive prior to the Date of Termination. The Executive's entitlements under all other benefit plans and programs of the Company shall be as determined thereunder.

SECTION 5.03 *Termination for Good Reason or Without Cause.* If the Employment Period shall be terminated by the Executive for Good Reason or by the Company without Cause, the Executive shall continue to: (a) receive Base Salary through the six (6) month anniversary of the Date of Termination, such amount to be paid in accordance with the regular payroll practices of the Company (except that any amount otherwise payable after the Date of Termination and prior to the sixtieth (60<sup>th</sup>) day following the Date of Termination shall instead be paid on such sixtieth (60<sup>th</sup>) day), and except that any amount payable after the Executive's "separation from service" (within the meaning of Treas. Reg. Section 1.409A-1(h)) with the Company will be subject to Section 12.09 below; (b) receive an amount equal to the sum of (i) the Executive's target annual bonus plus (ii) a pro-rated portion of the Executive's target annual bonus based on the number of days elapsed in the calendar year through the date Notice of Termination is given, one half of which amount shall be paid in cash in a single lump sum on the date that is sixty (60) days following the Date of Termination and the remaining half of which shall be paid in accordance with the regular payroll practices of the Company (except that any amount otherwise payable after the Date of Termination and prior to the sixtieth (60<sup>th</sup>) day following the Date of Termination shall instead be paid on such sixtieth (60<sup>th</sup>) day); (c) receive benefits set forth in Section 4.03 above through the Date of Termination, except that any amount payable after the Executive's "separation from service" (within the meaning of Treas. Reg. Section 1.409A-1(h)) with the Company will be subject to Section 12.09 below, and (d) receive his major medical insurance coverage benefits from the Company's plan in effect from time to time (provided the Executive continues to pay the portion of the premiums for such coverage that are charged to similarly situated active employees) for a period equal to the lesser of (i) six (6) months after the Date of Termination, and (ii) until the Executive is provided by another employer with benefits substantially comparable to the benefits provided by such plan; and (e) receive reimbursement for all Reimbursable Expenses incurred by the Executive prior to the Date of Termination. The Executive's entitlements under all other benefit plans and programs of the Company shall be as determined thereunder. Notwithstanding the foregoing, the Executive shall be entitled to the amounts described above (other than Base Salary and benefits as set forth in Section 4.03 through the Date of Termination) only if (i) the Executive has entered into an irrevocable (except to the extent required by law, and to the extent required by law to be revocable, has not revoked) general release of claims, which, subject to Section 5.07 below, is reasonably satisfactory to the Company ("Release"), on or before the date that is fifty (50) days following the Date of Termination (but not prior to the Date of Termination), and (ii) the Executive has not breached and does not breach the provisions of Sections 6.01, 7.01, 8.01, 9.01, 9.02 or 11.01 of this Agreement.

SECTION 5.04 *Termination for Other Reasons.* If the Employment Period shall be terminated by the Company with Cause, as a result of the Executive's Permanent Disability or upon the Executive's death, the Executive (or his beneficiaries or estate, in the case of death) shall continue to (a) receive Base Salary and benefits set forth in Section 4.03 above through the Date of Termination, except that any amount payable after the Executive's "separation from service" (within the meaning of Treas. Reg. Section 1.409A-1(h)) with the Company will be subject to Section 12.09 below; and (b) in the case of termination due to the Executive's Permanent Disability or death, receive his major medical insurance coverage benefits from the Company's plan in effect at the time of such termination

for a period equal to the lesser of (i) twelve (12) months after the Date of Termination, and (ii) until the Executive is provided by another employer with benefits substantially comparable to the benefits provided by such plan; and (c) receive reimbursement for all Reimbursable Expenses incurred by the Executive prior to the Date of Termination. The Executive's entitlements under all other benefit plans and programs of the Company shall be as determined thereunder.

SECTION 5.05. *Notice of Termination and Opportunity to Cure* . Any termination by the Company for Permanent Disability or Cause or without Cause or by the Executive for Good Reason or without Good Reason shall be communicated by written Notice of Termination to the other party hereto. For purposes of this Agreement, a “ **Notice of Termination** ” shall mean a notice which shall indicate the date the termination is to take effect (consistent with the terms of this Agreement), the specific termination provision in this Agreement relied upon and, for a termination for Permanent Disability or for Cause or for a resignation for Good Reason, shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of employment under the provision indicated. It shall be a condition precedent to the Executive's right to terminate employment for Good Reason that (i) the Executive shall first have given the Company written notice that an event or condition constituting Good Reason has occurred within ninety (90) days after such occurrence, and any failure to give such written notice within such period will result in a waiver by the Executive of his right to terminate for Good Reason as a result of such event or condition, and (ii) a period of thirty (30) days from and after the giving of such written notice shall have elapsed without the Company having effectively cured or remedied such occurrence during such 30-day period, unless such occurrence cannot be cured or remedied within thirty (30) days, in which case the period for remedy or cure shall be extended for a reasonable time (not to exceed an additional fifteen (15) days) provided that the Company has made and continues to make a diligent effort to effect such remedy or cure.

SECTION 5.06. *Garden Leave*. Following any Notice of Termination, whether by the Company or the Executive and until the end of the Employment Period, the Company may direct, in its sole and exclusive discretion, that the Executive perform no duties and exercise no powers or authorities in connection with his employment, resign from any office with the Company and its Affiliates and not attend any premises of any of the Company and its Affiliates; provided, however, that, following any such direction, the Executive will continue to be required to comply with his other obligations under this Agreement and will continue to have a duty of loyalty to the Company as an employee (“ Garden Leave”). Notwithstanding the above, the Company may at its discretion require the Executive to perform duties at any time during the Garden Leave, which duties may be withdrawn at any time at the Company's discretion, and, during the Garden Leave, the Executive shall: (a) remain an employee of the Company and be bound by the terms of this Agreement; (b) not, without the prior written consent of the Company, attend his place of work or any other premises of any of the Company and its Affiliates or access the information technology systems of the Company and its Affiliates; (c) not, without the prior written consent of the Company, contact or deal with (or attempt to contact or deal with) any officer, employee, consultant, client, customer, investor, supplier, agent, distributor, shareholder, adviser or other business contact of any of the Company and its Affiliates; (d) promptly disclose in writing to the Company any attempt at contact with the Executive made by any such person or entity with whom the Executive has been required to have no contact pursuant to this Section 5.06; and (e) be ready and available to perform such duties as the Company may require, ensuring that the Company knows where and how he can be contacted and complying with any written requests to contact a specified employee of the Company at specified intervals.

SECTION 5.07 *Release* . In consideration of the mutual promises herein and the payments detailed in this Article 5, the Executive, on behalf of himself and his heirs and assigns, in a form reasonably satisfactory to the Company, shall, with respect to any termination of employment under Section 5.03, execute a Release which irrevocably and unconditionally releases and forever discharges,

individually and collectively, the Company and its Affiliates, and each of their respective officers, directors, employees, shareholders, representatives, parent companies, subsidiaries, predecessors, successors, assigns, attorneys and all persons acting by, through or in concert with them, of and from any and all charges, claims, complaints, demands, liabilities or causes of action, known or unknown, that the Executive may have at the effective date of the Release or has ever had against any such Person. Notwithstanding any other provision hereof, the Executive shall not be required by any general release to release claims that the Executive may have against the Company that arise after the effective date of the Release, any rights the Executive may have to enforce Section 5.03 of this Agreement, or any rights of the Executive to be indemnified under the organizational documents of the Company and its Affiliates or under applicable law or pursuant to the Company's directors' and officers' liability insurance policies.

## **ARTICLE 6**

### **CONFIDENTIAL INFORMATION**

SECTION 6.01. *Nondisclosure and Nonuse of Confidential Information* . The Executive will not disclose or use at any time during or after the Employment Period any Confidential Information of which the Executive is or becomes aware, whether or not such Confidential Information is developed by him, except to the extent that such disclosure or use is directly related to and required by the Executive's performance of duties assigned to the Executive pursuant to this Agreement. Under all circumstances and at all times, the Executive will take all appropriate steps to safeguard Confidential Information in his possession and to protect it against disclosure, misuse, espionage, loss and theft.

SECTION 6.02. *Defend Trade Secrets Act* . Pursuant to 18 U.S.C. § 1833(b), the Executive understands that the Executive will not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret of the Company that (i) is made (x) in confidence to a Federal, State, or local government official, either directly or indirectly, or to the Executive's attorney and (y) solely for the purpose of reporting or investigating a suspected violation of law; or (ii) is made in a complaint or other document that is filed under seal in a lawsuit or other proceeding. The Executive understands that if the Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, the Executive may disclose the trade secret to the Executive's attorney and use the trade secret information in the court proceeding if the Executive (I) files any document containing the trade secret under seal, and (II) does not disclose the trade secret, except pursuant to court order. Nothing in this Agreement is intended to conflict with 18 U.S.C. § 1833(b) or create liability for disclosures of trade secrets that are expressly allowed by such section. Further, nothing in this Agreement or any other agreement or arrangement with the Company or any of its Affiliates shall prohibit or restrict the Executive from making any disclosure of information or documents to any governmental agency or legislative body, any self-regulatory organization, the Legal Department of the Company, and/or pursuant to the whistleblower provisions of the Dodd Frank Act or Sarbanes-Oxley Act.

## **ARTICLE 7**

### **INTELLECTUAL PROPERTY**

SECTION 7.01. *Ownership of Intellectual Property* . In the event that the Executive as part of his activities on behalf of the Company generates, authors or contributes to any invention, design, new development, device, product, method of process (whether or not patentable or reduced to practice or comprising Confidential Information), any copyrightable work (whether or not comprising

Confidential Information) or any other form of Confidential Information relating directly or indirectly to the business of the Company as now or hereinafter conducted (collectively, “**Intellectual Property**”), the Executive acknowledges that such Intellectual Property is the sole and exclusive property of the Company and hereby assigns all right title and interest in and to such Intellectual Property to the Company. Any copyrightable work prepared in whole or in part by the Executive during the Employment Period will be deemed “a work made for hire” under Section 201(b) of the United States Copyright Act of 1976, as amended, and the Company will own all of the rights comprised in the copyright therein. The Executive will promptly and fully disclose all Intellectual Property and will cooperate with the Company to protect the Company’s interests in and rights to such Intellectual Property (including providing reasonable assistance in securing patent protection and copyright registrations and executing all documents as reasonably requested by the Company, whether such requests occur prior to or after termination of Executive’s employment hereunder).

## ARTICLE 8

### DELIVERY OF MATERIALS UPON TERMINATION OF EMPLOYMENT

SECTION 8.01. *Delivery of Materials upon Termination of Employment* . As requested by the Company, from time to time and upon the termination of the Executive’s employment with the Company for any reason, the Executive will promptly deliver to the Company all property of the Company in the Executive’s possession or within his control, including, without limitation, all copies and embodiments, in whatever form or medium, of all Confidential Information or Intellectual Property in the Executive’s possession or within his control (including written records, notes, photographs, manuals, notebooks, documentation, program listings, flow charts, magnetic media, disks, diskettes, tapes and all other materials containing any Confidential Information or Intellectual Property), irrespective of the location or form of such property and, if requested by the Company, will provide the Company with written confirmation that all such property have been delivered to the Company.

## ARTICLE 9

### NONCOMPETITION AND NONSOLICITATION

SECTION 9.01. *Noncompetition* . The Executive acknowledges that during his employment with the Company, he will become familiar with trade secrets and other Confidential Information concerning the Company and its Affiliates and their respective predecessors, and that his services will be of special, unique and extraordinary value to the Company. In addition, the Executive hereby agrees that at any time during the Employment Period, and for a period ending one (1) year after the termination of the Executive's employment (the “**Noncompetition Period**”), he will not directly or indirectly own, manage, control, participate in, consult with, render services for or in any manner engage in any Restricted Business;

provided, however, that if the Executive’s termination of employment occurs as a result of the Executive’s resignation or leaving of his employment other than for Good Reason, except as provided in clause (Y) below, the Noncompetition Period shall continue beyond the Date of Termination only if (i) the Company pays the Executive, for each day during which the Noncompetition Period so continues (taking into account Section 9.04 below), an amount equal to 1/365<sup>th</sup> of the sum of (A) the Executive’s annual Base Salary, plus (B) the Executive’s Bonus Amount, and (C) a pro-rated portion of the Executive’s Bonus Amount based on the number of days elapsed in the calendar year through the date Notice of

Termination is given, such amount to be paid in accordance with the regular payroll practices of the Company (except that any amount otherwise payable after the Date of Termination and prior to the sixtieth (60<sup>th</sup>) day following the Date of Termination shall instead be paid on such sixtieth (60<sup>th</sup>) day); and (ii) the Executive shall continue to receive his major medical insurance coverage benefits from the Company's plan in effect from time to time (provided the Executive continues to pay the portion of the premiums for such coverage that are charged to similarly situated active employees) for a period equal to the lesser of (x) the end of the Noncompetition Period, and (y) until the Executive is provided by another employer with benefits substantially comparable (with no pre-existing condition limitations) to the benefits provided by such plan; and provided further, however, that:

(X) the Company may elect, in its sole discretion, by written notice to the Executive given not more than ten (10) business days after the date Notice of Termination is given by the Executive without Good Reason, to not continue the Noncompetition Period beyond the Date of Termination or to reduce the Noncompetition Period under such circumstances so that it ends on the date set forth in such written notice (which shall not be later than twelve (12) months after the Date of Termination), in which case the Company's obligation to make payments and provide benefits under this Section 9.01 shall end at the end of the Noncompetition Period, and

(Y) the Company's requirement to make payments under this Section 9.01 as a condition to continuation of the Noncompetition Period shall apply only if the Executive has entered into a general release of claims reasonably satisfactory to the Company on or before the date that is fifty (50) days following the Date of Termination (but not prior to the Date of Termination) and does not revoke such release prior to the end of any applicable revocation period (it being understood that such general release will not require the Executive to release his rights under this Section 9.01 and will not contain any employment restrictions or non-solicitation obligations other than those set forth in this Agreement) and the Executive has not breached and does not breach the provisions of Sections 6.01, 7.01, 8.01, 9.01, 9.02 or 10.01 hereof.

"Restricted Business" means (i) any business competing with the businesses of the Company or its Affiliates as such businesses exist or are in process as of the date of termination, within any geographical area in which the Company or its Affiliates engage or plan to engage in such businesses, and (ii) any business that is materially competitive with the businesses that (I) are at the time in question being conducted by the Company or its Affiliates with which the Executive was involved to a material extent in the twelve (12) months prior to termination of the Executive's employment, or (II) were, during the Executive's employment, either being conducted by, or being actively developed by, the Company or its Affiliates with which the Executive was involved to a material extent in the twelve (12) months prior to termination of Executive's employment. It shall not be considered a violation of this Section 9.01 for the Executive to be a passive owner of not more than 2% of the outstanding stock of any class of a corporation which is publicly traded, so long as the Executive has no active participation in the business of such corporation.

**SECTION 9.02. Nonsolicitation** . The Executive acknowledges that during his employment with the Company, he will become familiar with trade secrets and other Confidential Information concerning the Company, its Affiliates and their respective predecessors, and that his services will be of special, unique and extraordinary value to the Company. The Executive hereby agrees that (a) during the Employment Period and for a period of one (1) year after the date of termination of employment (the "**Nonsolicitation Period**") the Executive will not, directly or indirectly, induce or attempt to induce any Relevant Employee of the Company or its Affiliates to leave the employ of the

Company or its Affiliates, or in any way interfere with the relationship between the Company or its Affiliates and any Relevant Employee thereof or otherwise employ or receive the services of any individual who was a Relevant Employee of the Company or its Affiliates at the Date of Termination or within the twelve-month period prior thereto, and (b) during the Nonsolicitation Period, the Executive will not induce or attempt to induce any Restricted Customer to cease doing business with the Company or its Affiliates. For purposes of this Agreement, a “Relevant Employee” shall mean a director, officer, underwriter or manager of the Company or its Affiliates, in each case with whom the Executive had material dealings at any time during the period of twelve (12) months prior to the Date of Termination. A “Restricted Customer” shall mean any firm, company or Person who was a customer, investor, supplier, client, insured, reinsured, reinsurer, broker, agent, licensee or other business relation of the Company or its Affiliates and with whom Executive had material dealings during the twelve (12) months prior to termination of the Executive’s employment.

SECTION 9.03. *Enforcement* . If, at the enforcement of Sections 9.01 or 9.02, a court holds that the duration or scope stated herein are unreasonable under circumstances then existing, the parties agree that the maximum duration and scope reasonable under such circumstances will be substituted for the stated duration or scope and that the court will be permitted to revise the restrictions contained in this Article 9 to cover the maximum duration and scope permitted by law.

SECTION 9.04 *Coordination with Garden Leave* . The lengths of the Noncompetition Period and the Nonsolicitation Period shall be reduced by any period that the Executive is required to remain away from the office during his notice period or not undertake his normal duties pursuant to Section 5.06 above.

## ARTICLE 10

### EQUITABLE RELIEF

SECTION 10.01. *Injunctive or Other Equitable Relief* . The Executive acknowledges that (a) the covenants contained herein are reasonable, (b) the Executive’s services are unique, and (c) a breach or threatened breach by him of any of his covenants and agreements with the Company and its Affiliates contained in Sections 6.01, 7.01, 8.01, 9.01 or 9.02 could cause irreparable harm to the Company or its Affiliates for which they would have no adequate remedy at law. Accordingly, and in addition to any remedies which the Company and its Affiliates may have at law, in the event of an actual or threatened breach by the Executive of his covenants and agreements contained in Sections 6.01, 7.01, 8.01, 9.01 or 9.02, the Company and its Affiliates shall have the absolute right, without the need to post a bond or any other type of security, to commence a lawsuit or other proceeding in any court of competent jurisdiction (the “Selected Court”) seeking injunctive or other equitable relief (an “Injunction Proceeding”). In furtherance thereof, the Executive expressly and irrevocably agrees that the Selected Court may exercise personal jurisdiction over him in connection with any Injunction Proceeding and further agrees not to assert that any court other than the Selected Court is a more suitable forum for an Injunction Proceeding.

## ARTICLE 11

### EXECUTIVE REPRESENTATIONS

SECTION 11.01. *Executive Representations* . The Executive hereby represents and warrants to the Company that (a) the execution, delivery and performance of this Agreement by the Executive does not and will not conflict with, breach, violate or cause a default under any contract, agreement, instrument, order, judgment or decree to which the Executive is a party or by which he is bound, (b)

the Executive is not a party to or bound by any employment agreement, noncompetition agreement or confidentiality agreement with any other Person that affects his right or ability to perform the duties contemplated by this Agreement, and (c) upon the execution and delivery of this Agreement by the Company, this Agreement will be the valid and binding obligation of the Executive, enforceable in accordance with its terms.

SECTION 11.02. *Company Representations* . The Company hereby represents and warrants to the Executive that (a) all acts required to be taken to authorize, deliver and perform this Agreement and the obligations of the Company provided for hereunder have been duly taken; and (b) upon the execution and delivery of this Agreement by the Company, this Agreement will be valid and binding obligation of the Company, enforceable in accordance with its terms.

## ARTICLE 12

### MISCELLANEOUS

SECTION 12.01. *Remedies* . The Company will have all rights and remedies set forth in this Agreement, all rights and remedies which the Company has been granted at any time under any other agreement or contract and all of the rights which the Company has under any law. The Company will be entitled to enforce such rights specifically, without posting a bond or other security, to recover damages by reason of any breach of any provision of this Agreement and to exercise all other rights granted by law. There are currently no disciplinary or grievance procedures in place, there is no collective agreement in place, and there is no probationary period.

SECTION 12.02. *Consent to Amendments* . The provisions of this Agreement may be amended or waived only by a written agreement executed and delivered by the Company and the Executive. No other course of dealing between the parties to this Agreement or any delay in exercising any rights hereunder will operate as a waiver of any rights of any such parties.

SECTION 12.03. *Successors and Assigns* . All covenants and agreements contained in this Agreement by or on behalf of any of the parties hereto will bind and inure to the benefit of the respective successors and assigns of the parties hereto whether so expressed or not, provided that the Executive may not assign his rights or delegate his obligations under this Agreement without the written consent of the Company.

SECTION 12.04. *Severability* . Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision will be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of this Agreement.

SECTION 12.05. *Counterparts* . This Agreement may be executed simultaneously in two counterparts, any one of which need not contain the signatures of more than one party, but all of which counterparts taken together will constitute one and the same agreement.

SECTION 12.06. *Descriptive Headings* . The descriptive headings of this Agreement are inserted for convenience only and do not constitute a part of this Agreement.

SECTION 12.07. *Notices* . All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement will be in writing and shall be delivered personally by hand, by electronic transmission (with a copy following by hand or by

overnight courier), by registered or certified mail, postage prepaid, return receipt requested, or by overnight courier service (charges prepaid). Communications delivered personally by hand shall be deemed received on the date when delivered personally to the recipient; communications sent by electronic means shall be deemed received one (1) business day after the sending thereof; communications sent by registered or certified mail shall be deemed received four (4) business days after the sending thereof; and communications delivered by overnight courier shall be deemed received one (1) business day after the date when sent to the recipient. Such notices, demands and other communications will be sent to the Executive and to the Company at the addresses set forth below.

If to the Executive:

To the last address delivered to the Company by the Executive in the manner set forth herein.

If to the Company:

Arch Capital Group Ltd.  
Waterloo House  
100 Pitts Bay Road  
Hamilton HM 12, Bermuda  
Attention: Secretary  
Tel: (441) 278-9250  
Fax: (441) 278-9255

or to such other address or to the attention of such other person as the recipient party has specified by prior written notice to the sending party.

SECTION 12.08. *Withholding* . The Company may withhold from any amounts payable under this Agreement such federal, state, local or foreign taxes as shall be required to be withheld pursuant to any applicable law or regulation.

SECTION 12.09. *409A and 457A*. This Section 12.09 shall apply to the Executive only if, and to the extent, he is subject to Section 409A or Section 457A of the Code. It is intended that this Agreement will comply with Sections 409A and 457A of the Code (and any regulations and guidelines issued thereunder), to the extent the Agreement is subject thereto, and the Agreement shall be interpreted on a basis consistent with such intent. If an amendment of the Agreement is necessary in order for it to comply with Section 409A or Section 457A, the parties hereto will negotiate in good faith to amend the Agreement in a manner that preserves the original intent of the parties to the extent reasonably possible. No action or failure to act, pursuant to this Section 12.09 shall subject the Company to any claim, liability, or expense, and the Company shall not have any obligation to indemnify or otherwise protect the Executive from the obligation to pay any taxes, interest or penalties pursuant to Section 409A or Section 457A of the Code.

Notwithstanding any provision to the contrary in this Agreement, if the Executive is deemed on the date of his “separation from service” (within the meaning of Treasury Regulation Section 1.409A-1(h)) to be a “specified employee” within the meaning of that term under Section 409A(a)(2)(B) of the Code, then with regard to any payment that is required to be delayed pursuant to Section 409A(a)(2)(B) of the Code (after taking into account the applicable provisions of Treasury Regulation Section 1.409A-1(b)(9)(iii)), the portion, if any, of such payment so required to be delayed shall not be made prior to the earlier of (i) the expiration of the six (6)-month period measured from the date of his “separation from service” or (ii) the date of his death (the “**Delay Period**”). Upon the expiration of the Delay Period, all payments and benefits delayed pursuant to this Section (whether they would

have otherwise been payable in a single sum or in installments in the absence of such delay) shall be paid or reimbursed to the Executive in a lump sum, and any remaining payments due under this Agreement shall be paid in accordance with the normal payment dates specified for them herein. Whenever payments under this Agreement are to be made in installments, each such installment shall be deemed to be a separate payment for purposes of Section 409A of the Code. Notwithstanding any provision of this Agreement to the contrary, for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a termination of employment that are considered deferred compensation under Section 409A, references to the Executive's "termination of employment" (and corollary terms) with the Company shall be construed to refer to the Executive's "separation from service" (within the meaning of Treas. Reg. Section 1.409A-1(h)) with the Company. In no case will compliance with this Section by the Company constitute a breach of the Company's obligations under this Agreement.

With respect to any reimbursement or in-kind benefit arrangements of the Company and its subsidiaries provided for herein that constitute deferred compensation for purposes of Section 409A, except as otherwise permitted by Section 409A, the following conditions shall be applicable: (i) the amount eligible for reimbursement, or in-kind benefits provided, under any such arrangement in one calendar year may not affect the amount eligible for reimbursement, or in-kind benefits to be provided, under such arrangement in any other calendar year (except that the health and dental plans may impose a limit on the amount that may be reimbursed or paid), (ii) any reimbursement must be made on or before the last day of the calendar year following the calendar year in which the expense was incurred, and (iii) the right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit.

SECTION 12.10. *Section 4999 of the Code* . Anything in this Agreement or the Company's Incentive Compensation Plan to the contrary notwithstanding, in the event it shall be determined that any payment, award, benefit or distribution (including, without limitation, the acceleration of any payment, award, distribution or benefit), by the Company or any of its affiliates to or for the benefit of the Executive (whether pursuant to the terms of this Agreement or otherwise) (a "**Payment**") would be subject to the excise tax imposed by Section 4999 of the Code or any corresponding provisions of state or local tax law (the "**Excise Tax**"), then such Payments shall either (a) be delivered in full, or (b) subject to, and in a manner consistent with the requirements of Section 409A of the Code, be reduced to the minimum extent necessary to ensure that no portion thereof will be subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state or local income and employment taxes and the Excise Tax, results in receipt by the Executive, on an after-tax basis, of the greatest amount of payments and benefits, notwithstanding that all or some portion of such payments and benefits may be subject to the Excise Tax. In the event that any Payments are to be reduced pursuant to this Section 12.10, then the reduction shall be applied as follows: (i) first, on a pro rata basis to the Executive's cash severance payments under Section 5.03 above, and (ii) second, on a pro rata basis to Executive's equity incentive awards. All determinations required to be made under this Article 12 shall be made by a nationally recognized accounting or consulting firm (other than the regular outside accounting firm retained by the Company) selected by the Company and agreed to by the Executive, which agreement shall not be unreasonably withheld (the "**Accounting Firm**"), which Accounting Firm shall provide detailed supporting calculations both to the Company and the Executive within 15 business days after the receipt of notice from the Company that the Executive has received a Payment, or such earlier time as is requested by the Company. Any determination by the Accounting Firm meeting the requirements of this Section 12.10 shall be binding upon the Company and the Executive. The fees and disbursements of the Accounting Firm shall be paid by the Company. If required, the Company shall enter into an engagement letter with the Accounting Firm containing reasonable and customary terms and provisions.

SECTION 12.11. *No Third Party Beneficiary* . This Agreement will not confer any rights or remedies upon any person other than the Company, the Executive and their respective heirs, executors, successors and assigns.

SECTION 12.12. *Entire Agreement* . This Agreement (including the documents referred to herein) constitutes the entire agreement among the parties and supersedes any prior understandings, agreements or representations by or among the parties, written or oral, that may have related in any way to the subject matter hereof, including, without limitation, the Employment Agreement, dated May 27, 2005, as amended, between Arch Capital Group Ltd. and the Executive. This Agreement shall serve as a written statement of employment for purposes of Section 6 of the Bermuda Employment Act 2000.

SECTION 12.13. *Construction* . The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rule of strict construction will be applied against any party. Any reference to any federal, state, local or foreign statute or law will be deemed also to refer to all rules and regulations promulgated thereunder, unless the context requires otherwise. The use of the word “ **including** ” in this Agreement means including without limitation and is intended by the parties to be by way of example rather than limitation.

SECTION 12.14. *Survival* . Sections 3.04, 5.03, 5.04, 6.01, 6.02, 7.01, 8.01 and Articles 9, 10, 11 and 12 will survive and continue in full force in accordance with their terms notwithstanding any termination of the Employment Period.

SECTION 12.15. *GOVERNING LAW* . ALL QUESTIONS CONCERNING THE CONSTRUCTION, VALIDITY AND INTERPRETATION OF THIS AGREEMENT WILL BE GOVERNED BY THE LAW OF BERMUDA, WITHOUT REGARD TO PRINCIPLES OF CONFLICT OF LAWS, SAVE THAT WHERE PROVISIONS OF FOREIGN LAW APPLY IN THIS AGREEMENT, THEY WILL BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH SUCH FOREIGN LAW.

SECTION 12.16. *Arbitration*. Save for where the Company chooses to exercise its rights as described in Section 10.01, in the event that a dispute or difference shall arise between the parties out of, in connection with, or concerning this Agreement, such dispute shall be referred to and determined by a sole arbitrator in a confidential private arbitration in accordance with the UNCITRAL rules as same are incorporated into the Bermuda International Conciliation and Arbitration Act 1986, except as they may be modified herein or by mutual agreement of the parties. Any such arbitration proceeding shall take place before a single arbitrator. The arbitrator shall be acceptable to both the Company and the Executive. However, if the parties cannot agree on an acceptable arbitrator, then the arbitrator is to be appointed by the Appointments' Committee of the Chartered Institute of Arbitrators Bermuda Branch. The seat of arbitration shall be Bermuda and it shall be conducted in the English language. The parties shall bear their respective costs (including attorney's fees) and shall split the fee of the arbitrators (50% paid by the Company and 50% by the Executive). Judgment upon the final award rendered by such arbitrator may be entered in any court having jurisdiction thereof. Each party agrees that it shall maintain confidentiality in respect to any arbitration between them (including any decision rendered in such arbitration) except as necessary in connection with an enforcement proceeding or as required by law.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year first above written.

ARCH CAPITAL GROUP LTD.

By: /s/ Marc Grandisson

Name: Marc Grandisson

Title: President and Chief Operating Officer

/s/ William Preston Hutchings

William Preston Hutchings

**For Awards for Named Executive Officers and  
certain Executive Officers of ACGL and subsidiaries**

**ARCH CAPITAL GROUP LTD.**

**Restricted Share Agreement**

THIS AGREEMENT, dated as of **[insert award date]**, between Arch Capital Group Ltd. (the “Company”), a Bermuda company, and **[insert name]** (the “Employee”).

WHEREAS, the Employee has been granted the following award under the Company’s **[insert Plan year]** Long Term Incentive and Share Award Plan (the “Plan”);

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the parties hereto agree as follows.

1. Award of Shares. Pursuant to the provisions of the Plan, the terms of which are incorporated herein by reference, the Employee is hereby awarded **[insert award shares]** Restricted Shares (the “Award”), subject to the terms and conditions herein set forth. Capitalized terms used herein and not defined shall have the meanings set forth in the Plan. In the event of any conflict between this Agreement and the Plan, the Plan shall control.

2. Terms and Conditions. It is understood and agreed that the Award of Restricted Shares evidenced hereby is subject to the following terms and conditions:

(a) Vesting of Award. Subject to Section 2(b) below and the other terms and conditions of this Agreement, this Award shall become vested in three equal annual installments on the first, second and third anniversaries of the date hereof. Unless otherwise provided by the Company, all dividends and other amounts receivable in connection with any adjustments to the Shares under Section 4(c) of the Plan shall be subject to the vesting schedule in this Section 2(a).

(b) Termination of Service; Forfeiture of Unvested Shares.

(i) In the event the Employee ceases to be an employee of the Company prior to the date the Restricted Shares otherwise become vested due to his or her death or Permanent Disability (as defined in the Company’s Incentive Compensation Plan on the date hereof), the Restricted Shares shall become immediately vested in full upon such termination of employment.

(ii) In the event of termination of employment (other than by the Company for Cause, as such term is defined in the Company’s Incentive Compensation Plan on the date hereof, and other than as set forth in Section 2(b)(i) or (iii) hereof) after the attainment of Retirement Age (as defined in the Company’s Incentive Compensation Plan on the date hereof), the Restricted Shares shall continue to vest on the schedule set forth in Section 2(a) above so long as the Employee does not, without the written consent of the Company, engage in any activity in competition with any activity of the Company or any of its Subsidiaries other than (i) serving on the board of directors (or similar governing body) of

another company or (ii) serving as a consultant for no more than 26 weeks per calendar year providing services that do not, in whole or in part, relate to the business or operations of an insurance or reinsurance company (“Competitive Activity”). In the event the Employee engages in a Competitive Activity, any unvested Restricted Shares shall be forfeited by the Employee and become the property of the Company.

(iii) In the event of a Change in Control (as defined in the Plan) in connection with which the Award is assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board and after which the Employee ceases to be an employee of the Company due to termination (A) by the Company not for Cause or (B) by the Employee for Good Reason (as defined below), in either case, on or before the second anniversary of the occurrence of the Change in Control, the Restricted Shares, to the extent not already vested, shall become immediately vested in full upon such termination of employment. “Good Reason” shall have the meaning given to such term in any existing employment agreement between the Employee and the Company or Subsidiary as in effect on the date of grant of this Award or, in the absence of such an existing employment agreement in effect on the date of grant defining such term, it shall mean, without the Employee’s written consent, (a) the material diminution of any material duties or responsibilities of the Employee without the same being corrected within thirty (30) days after being given written notice thereof; or (b) a material reduction in the Employee’s base salary without the same being corrected within thirty (30) days after being given written notice thereof.

(iv) If the Employee ceases to be an Employee of the Company for any other reason prior to the date the Restricted Shares become vested, the Award shall be forfeited by the Employee and become the property of the Company.

(v) For purposes of this Agreement, service with any of the Company’s Subsidiaries (as defined in the Plan) shall be considered to be service with the Company.

(c) Change in Control; Award Not Assumed. Notwithstanding any provision of this Agreement to the contrary, upon the occurrence of a Change in Control in connection with which the Award is not assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board, the Award shall vest in full on the effective date of the Change in Control.

(d) Certificates. Each certificate issued in respect of Restricted Shares awarded hereunder shall be issued in book entry format with the Company’s transfer agent and shall bear a legend disclosing the restrictions on transferability imposed on such Restricted Shares by this Agreement (the “Restrictive Legend”). Upon the vesting of Restricted Shares pursuant to Section 2 hereof and the satisfaction of any withholding tax liability pursuant to Section 5 hereof, such vested Shares, not bearing the Restrictive Legend, shall be delivered to the Employee.

(e) Rights of a Stockholder. Prior to the time a Restricted Share is fully vested hereunder, the Employee shall have no right to transfer, pledge, hypothecate or otherwise encumber such Restricted Share. During such period, the Employee shall have all other rights of a stockholder, including, but not limited to, the right to vote and to receive dividends (subject to Section 2(a) hereof) at the time paid on such Restricted Shares.

(f) No Right to Continued Employment. This Award shall not confer upon the Employee any right with respect to continuance of employment by the Company nor shall this Award interfere with the right of the Company to terminate the Employee’s employment at any time.

3. Transfer of Shares. The Shares delivered hereunder, or any interest therein, may be sold, assigned, pledged, hypothecated, encumbered, or transferred or disposed of in any other manner, in whole or in part, only in compliance with the terms, conditions and restrictions as set forth in the governing instruments of the Company, applicable United States federal and state securities laws or any other applicable laws or regulations and the terms and conditions hereof.

4. Expenses of Issuance of Shares. The issuance of stock certificates hereunder shall be without charge to the Employee. The Company shall pay any issuance, stamp or documentary taxes (other than transfer taxes) or charges imposed by any governmental body, agency or official (other than income taxes) or by reason of the issuance of Shares.

5. Withholding. No later than the date of vesting of (or the date of an election by the Employee under Section 83(b) of the Code with respect to) the Award granted hereunder, the Employee shall pay to the Company or make arrangements satisfactory to the Committee regarding payment of any federal, state or local taxes of any kind required by law to be withheld at such time with respect to such Award and the Company shall, to the extent permitted or required by law, have the right to deduct from any payment of any kind otherwise due to the Employee, federal, state and local taxes of any kind required by law to be withheld at such time.

6. References. References herein to rights and obligations of the Employee shall apply, where appropriate, to the Employee's legal representative or estate without regard to whether specific reference to such legal representative or estate is contained in a particular provision of this Agreement.

7. Notices. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given when delivered personally or by courier, or sent by certified or registered mail, postage prepaid, return receipt requested, duly addressed to the party concerned at the address indicated below or to such changed address as such party may subsequently by similar process give notice of:

If to the Company:

Arch Capital Group Ltd.  
Waterloo House, Ground Floor  
100 Pitts Bay Road  
Pembroke HM 08 Bermuda  
Attn.: Secretary

If to the Employee:

To the last address delivered to the Company by the  
Employee in the manner set forth herein.

8. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of New York, without giving effect to principles of conflict of laws.

9. Entire Agreement. This Agreement and the Plan constitute the entire agreement among the parties relating to the subject matter hereof, and any previous agreement or understanding among the parties with respect thereto is superseded by this Agreement and the Plan.

10. Counterparts. This Agreement may be executed in two counterparts, each of which shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

ARCH CAPITAL GROUP LTD.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

By accepting this grant on-line, I hereby acknowledge that I have read and agree to the terms and conditions of the grant and of the **[insert Plan year]** Long Term Incentive and Share Award Plan (“Plan”) and that this shall constitute the same as my written signature. I also acknowledge that I have received a copy of the Plan Prospectus and a copy of the supplemental summary and prospectus for the country where I’m based (“Supplemental Prospectus”), if applicable. Copies of the Plan, the Plan Prospectus and Supplemental Prospectus can be found in the “My Company Info/Documents” link on the “At a Glance” tab.

**For Awards for Named Executive Officers and  
certain Executive Officers of ACGL and subsidiaries**

**ARCH CAPITAL GROUP LTD.**

**Non-Qualified Stock Option Agreement**

FOR GOOD AND VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Arch Capital Group Ltd. (the “Company”), a Bermuda company, hereby grants to **[insert name]**, an employee of the Company on the date hereof (the “Option Holder”), the option to purchase common shares, \$0.0011 par value per share, of the Company (“Shares”), upon the following terms:

WHEREAS, the Option Holder has been granted the following award under the Company’s **[insert year of Plan]** Long Term Incentive and Share Award Plan (the “Plan”);

(a) Grant. The Option Holder is hereby granted an option (the “Option”) to purchase **[insert number of option shares]** Shares (the “Option Shares”) pursuant to the Plan, the terms of which are incorporated herein by reference. The Option is granted as of **[insert award date]** (the “Date of Grant”) and such grant is subject to the terms and conditions herein and the terms and conditions of the applicable provisions of the Plan. This Option shall not be treated as an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended. In the event of any conflict between this Agreement and the Plan, the Plan shall control.

(b) Status of Option Shares. Upon issue, the Option Shares shall rank equally in all respects with the other Shares.

(c) Option Price. The purchase price for the Option Shares shall be, except as herein provided, \$ **[insert price]** per Option Share, hereinafter sometimes referred to as the “Option Price,” payable immediately in full upon the exercise of the Option.

(d) Term of Option. The Option may be exercised only during the period (the “Option Period”) set forth in paragraph (f) below and shall remain exercisable until the tenth anniversary of the Date of Grant. Thereafter, the Option Holder shall cease to have any rights in respect thereof. The right to exercise the Option shall be subject to sooner termination as provided in paragraph (j) below.

(e) No Rights of Shareholder. The Option Holder shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity.

(f) Exercisability. Except as otherwise set forth in paragraph (j) below, the Option shall become exercisable in three equal annual installments on the first, second and third anniversaries of the Date of Grant, in each case subject to paragraph (j) below. Subject to paragraph (j) below, the Option may be exercised at any time or from time to time during

the Option Period in regard to all or any portion of the Option which is then exercisable, as may be adjusted pursuant to paragraph (g) below.

(g) Anti-dilution Adjustment. For the avoidance of doubt, the terms of Section 4(c) of the Plan, relating to anti-dilution adjustments, will apply to the Option.

(h) Nontransferability. The Option, or any interest therein, may not be assigned or otherwise transferred, disposed of or encumbered by the Option Holder, other than by will or by the laws of descent and distribution. During the lifetime of the Option Holder, the Option shall be exercisable only by the Option Holder or by his or her guardian or legal representative. Notwithstanding the foregoing, the Option may be transferred by the Option Holder to members of his or her “immediate family” or to a trust or other entity established for the exclusive benefit of solely one or more members of the Option Holder’s “immediate family.” Any Option held by the transferee will continue to be subject to the same terms and conditions that were applicable to the Option immediately prior to the transfer, except that the Option will be transferable by the transferee only by will or the laws of descent and distribution. For purposes hereof, “immediate family” means the Option Holder’s children, stepchildren, grandchildren, parents, stepparents, grandparents, spouse, siblings (including half brothers and sisters), in laws, and relationships arising because of legal adoption.

(i) Exercise of Option. In order to exercise the Option, the Option Holder shall, in the manner directed by the Company, specify the whole number of Option Shares in respect of which the Option is being exercised, accompanied by payment, in a manner acceptable to the Company (which shall include a broker assisted exercise arrangement), of the Option Price for the Option Shares for which the Option is being exercised. Payment to the Company in cash or Shares already owned by the Option Holder (provided that the Option Holder has owned such Shares for a minimum period of six months or has purchased such Shares on the open market) and having a total Fair Market Value equal to the exercise price, or in a combination of cash and such Shares, shall be deemed acceptable for purposes hereof. In addition, in lieu of making payment of the exercise price of the Option and receiving the number of Shares for which the Option is being exercised as described above, the Option Holder may instead elect to exercise the Option by making no cash exercise price payment but having the Company issue to the Option Holder the number of Shares (rounded down to the nearest whole number) equal to the net result obtained by (A) subtracting the exercise price per Share from the Fair Market Value per Share on the date of exercise, (B) multiplying the difference by the number of Shares for which the Option is being exercised, and (C) dividing the product by the Fair Market Value per Share on the date of exercise. For the avoidance of doubt, if the calculation in the immediately preceding sentence results in a negative number, no Shares will be issued upon exercise. Option Shares will be issued accordingly by the Company, and a share certificate dispatched or electronic delivery of such Option Shares to the Option Holder within 30 days.

The Company shall not be required to issue fractional Shares upon the exercise of the Option. If any fractional interest in a Share would be deliverable upon the exercise of the Option in whole or in part but for the provisions of this paragraph, the Company, in lieu of delivering any such fractional share therefor, shall pay a cash adjustment therefor in an amount equal to their Fair Market Value multiplied by the fraction of the fractional share which would otherwise have been issued hereunder. Anything to the contrary herein notwithstanding, the Company shall not be obligated to issue any Option Shares hereunder if the issuance of such Option Shares would violate the provision of any applicable law,

in which event the Company shall, as soon as practicable, take whatever action it reasonably can so that such Option Shares may be issued without resulting in such violations of law.

(j) Termination of Service.

1. In the event the Option Holder ceases to be an employee of the Company due to the Option Holder's death or Permanent Disability (as defined in the Company's Incentive Compensation Plan on the date hereof), the Option, to the extent not already exercisable in full, shall become immediately exercisable in full and shall continue to be exercisable by the Option Holder (or the Option Holder's Beneficiary or estate in the event of the Option Holder's death) for a period of three years following such termination of employment (but not beyond the Option Period).

2. In the event of termination of employment (other than by the Company for Cause, as such term is defined in the Company's Incentive Compensation Plan on the date hereof and other than as set forth in paragraphs (j)(1) or (j)(3) hereof) after the attainment of Retirement Age (as defined in the Company's Incentive Compensation Plan on the date hereof), the Option shall continue to become exercisable on the schedule set forth in paragraph (f) above so long as the Option Holder does not, without the written consent of the Company, engage in any activity in competition with any activity of the Company or any of its Subsidiaries other than (i) serving on the board of directors (or similar governing body) of another company or (ii) serving as a consultant for no more than 26 weeks per calendar year providing services that do not, in whole or in part, relate to the business or operations of an insurance or reinsurance company ("Competitive Activity") and shall continue to be exercisable by the Option Holder (or the Option Holder's Beneficiary or estate in the event of the Option Holder's death) for the remainder of the Option Period. In the event the Option Holder engages in a Competitive Activity, (A) the Option, to the extent then exercisable, may be exercised for 30 days following the date on which the Option Holder engages in such Competitive Activity (but not beyond the Option Period) and (B) the Option, to the extent then not exercisable, shall be immediately forfeited.

3. In the event of a Change in Control (as defined in the Plan) in connection with which the Option is assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board and after which the Option Holder ceases to be an employee of the Company due to termination (A) by the Company not for Cause or (B) by the Option Holder for Good Reason (as defined below), in either case, on or before the second anniversary of the occurrence of the Change in Control, the Option, to the extent not already exercisable in full, shall become immediately exercisable in full and shall continue to be exercisable by the Option Holder for a period of 90 days following such termination of employment (but not beyond the Option Period). "Good Reason" shall have the meaning given to such term in any existing employment agreement between the Option Holder and the Company or Subsidiary as in effect on the date of grant of this Option or, in the absence of such an existing employment agreement in effect on the date of grant defining such term, it shall mean, without the Option Holder's written consent, (a) the material diminution of any material duties or responsibilities of the Option Holder without the same being corrected within thirty (30) days after being given written notice thereof; or (b) a material reduction in the Option Holder's base salary without the same being corrected within thirty (30) days after being given written notice thereof.

4. In the event that the Option Holder ceases to be an employee of the Company for any other reason, except due to a termination of the Option Holder's employment by the Company for Cause, (A) the Option, to the extent then exercisable, may be exercised for 90 days following termination of employment (but not beyond the Option Period) and (B) the Option, to the extent then not exercisable, shall be immediately forfeited.

5. In the event of a termination of the Option Holder's employment for Cause, the Option shall immediately cease to be exercisable and shall be immediately forfeited.

6. For purposes of this Option, service with any of the Company's Subsidiaries (as defined in the Plan) shall be considered to be service with the Company.

(k) Change in Control; Option Not Assumed. Notwithstanding any provision of this Agreement to the contrary, upon the occurrence of a Change in Control in connection with which the Option is not assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board, the Option shall vest in full on the effective date of the Change in Control.

(l) Obligations as to Capital. The Company agrees that it will at all times maintain authorized and unissued share capital sufficient to fulfill all of its obligations under the Option.

(m) Transfer of Shares. The Option, the Option Shares, or any interest in either, may be sold, assigned, pledged, hypothecated, encumbered, or transferred or disposed of in any other manner, in whole or in part, only in compliance with the terms, conditions and restrictions as set forth in the governing instruments of the Company, applicable United States federal and state securities laws and the terms and conditions hereof.

(n) Expenses of Issuance of Option Shares. The issuance of stock certificates or the electronic delivery of Option Shares upon the exercise of the Option in whole or in part, shall be without charge to the Option Holder. The Company shall pay any issuance, stamp or documentary taxes (other than transfer taxes) or charges imposed by any governmental body, agency or official (other than income taxes) by reason of the exercise of the Option in whole or in part or the resulting issuance of the Option Shares.

(o) Withholding. No later than the date of exercise of the Option granted hereunder, the Option Holder shall pay to the Company or make arrangements satisfactory to the Committee regarding payment of any federal, state or local taxes of any kind required by law to be withheld upon the exercise of such Option and the Company shall, to the extent permitted or required by law, have the right to deduct from any payment of any kind otherwise due to the Option Holder, federal, state and local taxes of any kind required by law to be withheld upon the exercise of such Option.

(p) References. References herein to rights and obligations of the Option Holder shall apply, where appropriate, to the Option Holder's legal representative or estate without regard to whether specific reference to such legal representative or estate is contained in a particular provision of this Option.

(q) Notices. Any notice required or permitted to be given under this agreement shall be in writing and shall be deemed to have been given when delivered personally or by courier, or sent by certified or registered mail, postage prepaid, return receipt requested, duly addressed to the party concerned at the address indicated below or to such changed address as such party may subsequently by similar process give notice of:

If to the Company:

Arch Capital Group Ltd.:  
Waterloo House, Ground Floor  
100 Pitts Bay Road  
Pembroke HM 08 Bermuda  
Attn: Secretary

If to the Option Holder:

The last address delivered to the Company by the Option Holder in the manner set forth herein.

(r) Governing Law. This agreement shall be governed by and construed in accordance with the laws of New York, without giving effect to principles of conflict of laws thereof.

(s) Entire Agreement. This agreement and the Plan constitute the entire agreement among the parties relating to the subject matter hereof, and any previous agreement or understanding among the parties with respect thereto is superseded by this agreement and the Plan.

(t) Counterparts. This agreement may be executed in two counterparts, each of which shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this agreement as of the Date of Grant.

ARCH CAPITAL GROUP LTD.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

By accepting this grant on-line, I hereby acknowledge that I have read and agree to the terms and conditions of the grant and of the **[insert year of Plan]** Long Term Incentive and Share Award Plan (“Plan”) and that this shall constitute the same as my written signature. I also acknowledge that I have received a copy of the Plan and Plan Prospectus which can be found in the “My Company Info/Documents” link on the “At a Glance” tab.

**For Awards for Named Executive Officers and  
certain Executive Officers of ACGL and subsidiaries**

**ARCH CAPITAL GROUP LTD.  
Performance Restricted Share Agreement**

THIS AGREEMENT, dated as of **[insert date]**, between Arch Capital Group Ltd. (the “Company”), a Bermuda company, and **[insert name]** (the “Employee”).

WHEREAS, the Employee has been granted the following award under the Company’s **[insert year of Plan]** Long Term Incentive and Share Award Plan (the “Plan”);

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the parties hereto agree as follows.

1. Award of Shares. Pursuant to the provisions of the Plan, the terms of which are incorporated herein by reference, the Employee is hereby awarded the following number of Restricted Shares (the “Award”):

Maximum Performance: **[insert number equal to 200% of Target Restricted Shares]** Restricted Shares;

Target Performance: **[insert number of Target Restricted Shares]** Restricted Shares (“Target Restricted Shares”); and

Threshold Performance: **[insert number equal to 50% of Target Restricted Shares]** Restricted Shares.

The Award is subject to the terms and conditions herein set forth, and capitalized terms used herein and not defined shall have the meanings set forth in the Plan. In the event of any conflict between this Agreement and the Plan, the Plan shall control.

2. Terms and Conditions. It is understood and agreed that the Award of Restricted Shares evidenced hereby is subject to the following terms and conditions:

(a) Vesting of Award. Subject to Section 2(b) below, Exhibit A hereto and the other terms and conditions of this Agreement, this Award shall become vested on the Vesting Date (as defined below) in the number of Restricted Shares earned based on the level of achievement of the performance goals as set forth in Exhibit A for the Performance Period (as defined in Exhibit A). The Vesting Date shall be the March 10 next following the end of the Performance Period. Unless otherwise provided by the Company, all dividends and other amounts receivable in connection with any adjustments to the Shares under Section 4(c) of the Plan shall be subject to the vesting schedule in this Section 2(a).

(b) Termination of Service; Forfeiture of Unvested Shares.

(i) In the event of the Employee’s termination of employment due to his or her death or Permanent Disability (as defined in the Company’s Incentive Compensation Plan on the date hereof) prior to the date the Restricted Shares otherwise become vested pursuant to Section 2(a) hereof, the Target

Restricted Shares shall become immediately vested in full upon such termination of employment, and the Restricted Shares subject to the Award in excess of the Target Restricted Shares shall be immediately forfeited.

(ii) In the event of the Employee's termination of employment (other than by the Company for Cause, as such term is defined in the Company's Incentive Compensation Plan on the date hereof, and other than as set forth in Section 2(b)(i) or (iii) hereof) after the attainment of Retirement Age (as defined in the Company's Incentive Compensation Plan on the date hereof) but prior to the date the Restricted Shares otherwise become vested pursuant to Section 2(a) hereof, the Employee shall continue to be eligible to vest on the Vesting Date in accordance with Section 2(a) above so long as the Employee does not, without the written consent of the Company, engage in any activity in competition with any activity of the Company or any of its Subsidiaries other than (i) serving on the board of directors (or similar governing body) of another company or (ii) serving as a consultant for no more than 26 weeks per calendar year providing services that do not, in whole or in part, relate to the business or operations of an insurance or reinsurance company ("Competitive Activity"). In the event the Employee engages in a Competitive Activity, the unvested Restricted Shares shall be forfeited by the Employee and become the property of the Company.

(iii) In the event of a Change in Control (as defined in the Plan) in connection with which the Award is assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board and after which the Employee ceases to be an employee of the Company due to termination (A) by the Company not for Cause or (B) by the Employee for Good Reason (as defined below), in either case, on or before the second anniversary of the occurrence of the Change in Control, (i) if the Performance Period has not ended, the Award shall vest upon such termination of employment based upon the greater of: (x) target performance pro-rated based upon the number of days within the Performance Period that have elapsed prior to the date of the Employee's termination of employment in relation to the total number of days within the Performance Period, or (y) the actual level of achievement of all relevant performance goals (measured as of the latest date immediately preceding the date of the Employee's termination of employment for which performance can, as a practical matter, be determined), and (ii) if the Performance Period has ended but the termination date is prior to the Vesting Date, the number of Restricted Shares earned for the Performance Period in accordance with Exhibit A will immediately become vested upon such termination of employment. "Good Reason" shall have the meaning given to such term in any existing employment agreement between the Employee and the Company or Subsidiary as in effect on the date of grant of this Award or, in the absence of such an existing employment agreement in effect on the date of grant defining such term, it shall mean, without the Employee's written consent, (a) the material diminution of any material duties or responsibilities of the Employee without the same being corrected within thirty (30) days after being given written notice thereof; or (b) a material reduction in the Employee's base salary without the same being corrected within thirty (30) days after being given written notice thereof.

(iv) In the event of the Employee's termination of employment for any reason, other than those reasons specified in Section 2(b)(i), (ii) and (iii) hereof, prior to the Vesting Date, the Award shall be forfeited by the Employee and become the property of the Company.

(v) For purposes of this Agreement, service with any of the Company's Subsidiaries (as defined in the Plan) shall be considered to be service with the Company.

(c) Change in Control; Award Not Assumed. Notwithstanding any provision of this Agreement to the contrary, upon the occurrence of a Change in Control in connection with which the

Award is not assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board, (i) if the Performance Period has not ended, the Award shall vest on the effective date of the Change in Control based upon the greater of: (A) target performance pro-rated based upon the number of days within the Performance Period that have elapsed prior to the Change in Control in relation to the total number of days within the Performance Period, or (B) the actual level of achievement of all relevant performance goals (measured as of the latest date immediately preceding the Change in Control for which performance can, as a practical matter, be determined), and (ii) if the Performance Period has ended but the Employee's termination of employment occurs prior to the Vesting Date, the number of Restricted Shares earned for the Performance Period in accordance with Exhibit A will immediately become vested.

(d) Certificates. Each certificate issued in respect of Restricted Shares awarded hereunder shall be issued in book entry format with the Company's transfer agent and shall bear a legend disclosing the restrictions on transferability imposed on such Restricted Shares by this Agreement (the "Restrictive Legend"). Upon the vesting of Restricted Shares pursuant to Section 2 hereof and the satisfaction of any withholding tax liability pursuant to Section 5 hereof, such vested Shares, not bearing the Restrictive Legend, shall be delivered to the Employee.

(e) Rights of a Stockholder. Prior to the time a Restricted Share is fully vested hereunder, the Employee shall have no right to transfer, pledge, hypothecate or otherwise encumber such Restricted Share. During such period, the Employee shall have all other rights of a stockholder, including, but not limited to, the right to vote and to receive dividends (subject to Section 2(a) hereof) at the time paid on such Restricted Shares.

(f) No Right to Continued Employment. This Award shall not confer upon the Employee any right with respect to continuance of employment by the Company nor shall this Award interfere with the right of the Company to terminate the Employee's employment at any time.

3. Transfer of Shares. The Shares delivered hereunder, or any interest therein, may be sold, assigned, pledged, hypothecated, encumbered, or transferred or disposed of in any other manner, in whole or in part, only in compliance with the terms, conditions and restrictions as set forth in the governing instruments of the Company, applicable United States federal and state securities laws or any other applicable laws or regulations and the terms and conditions hereof.

4. Expenses of Issuance of Shares. The issuance of stock certificates hereunder shall be without charge to the Employee. The Company shall pay any issuance, stamp or documentary taxes (other than transfer taxes) or charges imposed by any governmental body, agency or official (other than income taxes) or by reason of the issuance of Shares.

5. Withholding. No later than the date of vesting of (or the date of an election by the Employee under Section 83(b) of the Code with respect to) the Award granted hereunder, the Employee shall pay to the Company or make arrangements satisfactory to the Committee regarding payment of any federal, state or local taxes of any kind required by law to be withheld at such time with respect to such Award and the Company shall, to the extent permitted or required by law, have the right to deduct from any payment of any kind otherwise due to the Employee, federal, state and local taxes of any kind required by law to be withheld at such time.

6. References. References herein to rights and obligations of the Employee shall apply, where appropriate, to the Employee's legal representative or estate without regard to whether specific reference to such legal representative or estate is contained in a particular provision of this Agreement.

7. Notices. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given when delivered personally or by courier, or sent by certified or registered mail, postage prepaid, return receipt requested, duly addressed to the party concerned at the address indicated below or to such changed address as such party may subsequently by similar process give notice of:

If to the Company:

Arch Capital Group Ltd.  
Waterloo House, Ground Floor  
100 Pitts Bay Road  
Pembroke HM 08 Bermuda  
Attn.: Secretary

If to the Employee:

To the last address delivered to the Company by the  
Employee in the manner set forth herein.

8. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of New York, without giving effect to principles of conflict of laws.

9. Entire Agreement. This Agreement (including Exhibit A hereto) and the Plan constitute the entire agreement among the parties relating to the subject matter hereof, and any previous agreement or understanding among the parties with respect thereto is superseded by this Agreement and the Plan.

10. Section 409A. It is intended that the Award will be exempt from Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") and any regulations and guidelines promulgated thereunder (collectively, "Section 409A"), and this Agreement shall be interpreted on a basis consistent with such intent.

11. Counterparts. This Agreement may be executed in two counterparts, each of which shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

ARCH CAPITAL GROUP LTD.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_  
Name: \_\_\_\_\_

By accepting this grant on-line, I hereby acknowledge that I have read and agree to the terms and conditions of the grant and of the **[insert Plan year]** Long Term Incentive and Share Award Plan (“Plan”) and that this shall constitute the same as my written signature. I also acknowledge that I have received a copy of the Plan Prospectus and a copy of the supplemental summary and prospectus for the country where I’m based (“Supplemental Prospectus”), if applicable. Copies of the Plan, Plan Prospectus and Supplemental Prospectus can be found in the “My Company Info/Documents” link on the “At a Glance” tab.

## Exhibit A

The Restricted Shares will vest contingent upon (i) the level of achievement of Absolute Growth in Tangible Book Value Per Share over the Performance Period, as modified by Relative TSR Performance, all as set forth below, and (ii) except as otherwise set forth in the Agreement, continued employment by the Employee through the Vesting Date set forth in the Agreement.

### Absolute Growth in Tangible Book Value Per Share

| <u>Level of Performance</u> | <u>Growth in TVBPS</u> | <u>Shares Earned as % of Target</u> |
|-----------------------------|------------------------|-------------------------------------|
| Threshold                   | __%                    | 50%                                 |
| Target                      | __%                    | 100%                                |
| Maximum                     | __%                    | 200%                                |

Results that are between the levels set forth above will be calculated by linear interpolation.

### Relative TSR Modifier

The number of Restricted Shares earned based on Absolute Growth in Tangible Book Value Per Share during the Performance Period as determined above will be increased (or decreased) by the percentage set forth below based on the Company's Relative TSR Performance percentile ranking over the Performance Period; provided, however, that (i) no such modification will occur if the Company's Relative TSR Performance percentile ranking is between the 35<sup>th</sup> and 65<sup>th</sup> percentile rankings, (ii) if the Company's TSR for the Performance Period is less than zero, then the number of earned Restricted Shares will not be adjusted upward, and (iii) not more than 200% of the Target Restricted Shares ( i.e., an amount equal to the Maximum Restricted Shares set forth in the Agreement) may be earned.

| <u>Relative TSR Percentile</u>            | <u>Percentage Modification</u> |
|-------------------------------------------|--------------------------------|
| Greater than or equal to 80 <sup>th</sup> | plus 25%                       |
| 35 <sup>th</sup> to 65 <sup>th</sup>      | no change                      |
| Less than or equal to 20 <sup>th</sup>    | minus 25%                      |

The Percentage Modification for Percentage Rankings that are between the Percentile Ranking values set forth above will be calculated by linear interpolation.

### Fractional Shares Rounded

In the event the overall calculation results in fractional shares, the amount of such resulting shares will be rounded to the nearest whole share (or down if exactly half way between).

Definitions :

“Absolute Growth in Tangible Book Value Per Share” means the excess of tangible book value per common share outstanding of the Company at the end of the Performance Period as reported by the Company over tangible book value per common share outstanding at the beginning of the Performance Period as reported by the Company. Tangible Book Value Per Share calculations may be modified by the Compensation Committee to reflect transactions not in the ordinary course of business which may affect tangible book value per share including, but not limited to, share issuances or conversions, share repurchases, extraordinary distributions, and capital adjustments or other transactions affecting tangible book value per share. The determination of Absolute Growth in Tangible Book Value Per Share by the Compensation Committee shall be final and binding on the Company and the Employee.

“Performance Period” means the three year period beginning on **[insert first day of performance period]** and ending on **[insert last day of performance period]** .

“TSR” means the total return to a shareholder over the prescribed period, including dividends (assuming reinvestment in the shares at the month end closing price for the month of the ex-dividend date for the dividend) and share price appreciation (or decline).

“Relative TSR Performance” will be calculated as follows for each applicable Performance Period:

- (i) TSR for the Company and each company (“Peer Company”) in the “Peer Group” (as defined below) will be calculated as a straight ratio of ending value to beginning value over the applicable Performance Period. In order to reduce volatility, each periodic TSR measurement will start and end with the average closing stock price for the first and last months in the applicable Performance Period, respectively.
- (ii) The Company’s percentile ranking will be determined as follows:

$$\text{Percentile Ranking} = [(n-r)/(n-1)] \times 100$$

Where n equals the number of Peer Companies within the Peer Group, including the Company, and r equals the Company’s ranking within the list of Peer Group companies, including the Company.

For example, if the Company ranks seventh and there are sixteen companies in the peer group (including the Company), the Company’s Percentile Ranking will be 60, which is equal to  $[(16-7)/(16-1)] \times 100$ .

The Peer Group shall be comprised of the following Peer Companies for which TSR computations can be made from publicly available information for the entire Performance Period, subject to the exceptions noted below. Any member of the Peer Group that files for bankruptcy during the Performance Period will be treated as having a negative one hundred percent (-100%) TSR for the Performance Period.

Alleghany Corporation  
AmTrust Financial Services, Inc.  
American Financial Group, Inc.  
Argo Group International Holdings, Ltd.  
Aspen Insurance Holdings Limited  
Assurant, Inc.  
AXIS Capital Holdings Ltd.  
Berkley (W.R.) Corporation  
Cincinnati Financial Corporation  
CNA Financial Corporation  
Essent Group Ltd.  
Everest Re Group Ltd.  
First American Financial Corporation  
Hartford Financial Services Group Inc.  
Hanover Insurance Group, Inc.  
Markel Corporation  
Old Republic International Corporation  
Radian Group Inc.  
RenaissanceRe Holdings Ltd.  
Selective Insurance Group, Inc.  
Validus Holdings, Ltd.  
XL Group Ltd.

A Peer Company shall be eliminated from the Peer Group for the entire Performance Period under the following circumstances:

- (i) the Peer Company consummates a corporate transaction of any type such that it is not the surviving entity (including a corporate transaction under which it sells all or substantially all of its assets),
- (ii) the Peer Company is acquired by the Company or any of its Subsidiaries or
- (iii) The Peer Company is delisted from the securities exchange on which it was listed at the beginning of the Performance Period (other than due to bankruptcy of the Peer Company) and following such delisting the Peer Company is not immediately relisted on a U.S. national securities exchange and remains listed on such exchange for the remainder of the Performance Period.

## For Non-Employee Directors of ACGL

**ARCH CAPITAL GROUP LTD.  
Restricted Share Agreement**

THIS AGREEMENT, dated as of **[insert date]**, between Arch Capital Group Ltd. (the “Company”), a Bermuda company, and **[insert name]** (the “Director”).

WHEREAS, the following terms reflect the Company’s 2012 Long Term Incentive and Share Award Plan (the “Plan”);

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the parties hereto agree as follows.

1. Award of Shares. Pursuant to the provisions of the Plan, the terms of which are incorporated herein by reference, the Director is hereby awarded **[insert shares]** Restricted Shares (the “Award”), subject to the terms and conditions herein set forth. Capitalized terms used herein and not defined shall have the meanings set forth in the Plan. In the event of any conflict between this Agreement and the Plan, the Plan shall control.

2. Terms and Conditions. It is understood and agreed that the Award of Restricted Shares evidenced hereby is subject to the following terms and conditions:

(a) Vesting of Award. Subject to Section 2(b) below and the other terms and conditions of this Agreement, this Award shall become vested on May 1, **[insert year]**. Unless otherwise provided by the Company, all dividends and other amounts receivable in connection with any adjustments to the Shares under Section 4(c) of the Plan shall be subject to the vesting schedule in this Section 2(a). Notwithstanding the foregoing, if a Change in Control occurs and the Director ceases to be a director of the Company for any reason, then the Restricted Shares shall become immediately vested in full upon such termination of service.

“Change in Control” shall mean:

- (A) any person (within the meaning of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), other than a Permitted Person, is or becomes the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of Voting Securities representing 50% or more of the total voting power or value of all the then outstanding Voting Securities; or
  - (B) the individuals who, as of the date hereof, constitute the Board of Directors of the Company (the “Board”) together with those who become directors subsequent to such date and whose recommendation, election or nomination for election to the Board was approved by a vote of at least a majority of the directors then still in office who either were directors as of such date or whose recommendation, election or nomination for election was previously so approved, cease for any reason to constitute a majority of the members of the Board; or
-

- (C) the consummation of a merger, consolidation, recapitalization, liquidation, sale or disposition by the Company of all or substantially all of the Company's assets, or reorganization of the Company, other than any such transaction which would (x) result in more than 50% of the total voting power and value represented by the voting securities of the surviving entity outstanding immediately after such transaction being beneficially owned by the former shareholders of the Company and (y) not otherwise be deemed a Change in Control under subparagraphs (A) or (B) of this paragraph.

“Permitted Persons” means (A) the Company; (B) any Related Party; or (C) any group (as defined in Rule 13b-3 under the Exchange Act) comprised of any or all of the foregoing.

“Related Party” means (A) a majority-owned subsidiary of the Company; (B) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any majority-owned subsidiary of the Company; or (C) any entity, 50% or more of the voting power of which is owned directly or indirectly by the shareholders of the Company in substantially the same proportion as their ownership of Voting Securities immediately prior to the transaction.

“Voting Security” means any security of the Company which carries the right to vote generally in the election of directors.

(b) Termination of Service; Forfeiture of Unvested Shares. Except as otherwise set forth in Section 2(a) above, in the event the Director ceases to be a director of the Company prior to the date the Restricted Shares otherwise become vested due to his or her death or Permanent Disability (as defined in the Company's Incentive Compensation Plan), the Restricted Shares shall become immediately vested in full upon such termination of service. If the Director ceases to be a director of the Company for any other reason prior to the date the Restricted Shares become vested, the Award shall be forfeited by the Director and become the property of the Company.

(c) Certificates. Each certificate issued in respect of Restricted Shares awarded hereunder shall be issued in book entry format with the Company's transfer agent and shall bear a legend disclosing the restrictions on transferability imposed on such Restricted Shares by this Agreement (the “Restrictive Legend”). Upon the vesting of Restricted Shares pursuant to Section 2(a) hereof and the satisfaction of any withholding tax liability pursuant to Section 5 hereof, such vested Shares, not bearing the Restrictive Legend, shall be delivered to the Director.

(d) Rights of a Stockholder. Prior to the time a Restricted Share is fully vested hereunder, the Director shall have no right to transfer, pledge, hypothecate or otherwise encumber such Restricted Shares. During such period, the Director shall have all other rights of a stockholder, including, but not limited to, the right to vote and to receive dividends (subject to Section 2(a) hereof) at the time paid on such Restricted Shares.

(e) No Right to Continued Services. This Award shall not confer upon the Director any right with respect to continuance of services with the Company nor shall this Award interfere with the right of the Company to terminate the Director's services at any time.

---

3. Transfer of Shares. The Shares delivered hereunder, or any interest therein, may be sold, assigned, pledged, hypothecated, encumbered, or transferred or disposed of in any other manner, in whole or in part, only in compliance with the terms, conditions and restrictions as set forth in the governing instruments of the Company, applicable United States federal and state securities laws or any other applicable laws or regulations and the terms and conditions hereof.

4. Expenses of Issuance of Shares. The issuance of stock certificates hereunder shall be without charge to the Director. The Company shall pay, and indemnify the Director from and against any issuance, stamp or documentary taxes (other than transfer taxes) or charges imposed by any governmental body, agency or official (other than income taxes) or by reason of the issuance of Shares.

5. Withholding. No later than the date of vesting of (or the date of an election by the Director under Section 83(b) of the Code with respect to) the Award granted hereunder, the Director shall make arrangements satisfactory to the Committee regarding payment of any federal, state or local taxes of any kind required by law to be withheld at such time with respect to such Award and the Company shall, to the extent permitted or required by law, have the right to deduct from any payment of any kind otherwise due to the Director, federal, state and local taxes of any kind required by law to be withheld at such time.

6. References. References herein to rights and obligations of the Director shall apply, where appropriate, to the Director's legal representative or estate without regard to whether specific reference to such legal representative or estate is contained in a particular provision of this Agreement.

7. Notices. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given when delivered personally or by courier, or sent by certified or registered mail, postage prepaid, return receipt requested, duly addressed to the party concerned at the address indicated below or to such changed address as such party may subsequently by similar process give notice of:

If to the Company:

Arch Capital Group Ltd.  
Waterloo House  
100 Pitts Bay Road  
Pembroke HM 08, Bermuda  
Attn.: Secretary

If to the Director:

To the last address delivered to the Company by the  
Director in the manner set forth herein.

8. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to principles of conflict of laws.

9. Entire Agreement. This Agreement and the Plan constitute the entire agreement among the parties relating to the subject matter hereof, and any previous agreement or understanding among the parties with respect thereto is superseded by this Agreement and the Plan.

10. Counterparts. This Agreement may be executed in two counterparts, each of which shall constitute one and the same instrument.

---

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

ARCH CAPITAL GROUP LTD.

By:

\_\_\_\_\_  
Name:  
Title:

\_\_\_\_\_  
Name:

## ARCH CAPITAL GROUP LTD.

### Restricted Share Agreement

THIS AGREEMENT, dated as of May 9, 2018, between Arch Capital Group Ltd. (the “Company”), a Bermuda company, and Constantine Iordanou (the “Employee”).

WHEREAS, the Employee has been granted the following award under the Company’s 2015 Long Term Incentive and Share Award Plan (the “Plan”);

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the parties hereto agree as follows.

1. Award of Shares. Pursuant to the provisions of the Plan, the terms of which are incorporated herein by reference, the Employee is hereby awarded 23,751\* Restricted Shares (the “Award”), subject to the terms and conditions herein set forth. Capitalized terms used herein and not defined shall have the meanings set forth in the Plan. In the event of any conflict between this Agreement and the Plan, the Plan shall control.

2. Terms and Conditions. It is understood and agreed that the Award of Restricted Shares evidenced hereby is subject to the following terms and conditions:

(a) Vesting of Award. Subject to Section 2(b) below and the other terms and conditions of this Agreement, this Award shall become vested in two equal annual installments on the first and second anniversaries of the date hereof. Unless otherwise provided by the Company, all dividends and other amounts receivable in connection with any adjustments to the Shares under Section 4(c) of the Plan shall be subject to the vesting schedule in this Section 2(a).

(b) Termination of Service; Forfeiture of Unvested Shares.

(i) In the event the Employee ceases to be an employee of the Company prior to the date the Restricted Shares otherwise become vested due to his or her death or Permanent Disability (as defined in the Company’s Incentive Compensation Plan on the date hereof), the Restricted Shares shall become immediately vested in full upon such termination of employment.

(ii) In the event of termination of employment (other than by the Company for Cause, as such term is defined in the Company’s Incentive Compensation Plan on the date hereof, and other than as set forth in Section 2(b)(i) or (iii) hereof) after the attainment of Retirement Age (as defined in the Company’s Incentive Compensation Plan on the date hereof), the Restricted Shares shall continue to vest on the schedule set forth in Section 2(a) above so long as the Employee does not, without the written consent of the Company, engage in any activity in competition with any activity of the Company or any of its Subsidiaries other than (i) serving on the board of directors (or similar governing body) of another company or (ii) serving as a consultant for no more than 26 weeks per calendar year providing services that do not, in whole or in part, relate to the business or operations of an insurance or reinsurance

---

\*Reflects a 3 for 1 share split that was approved at the Company’s May 9, 2018 Annual General Meeting.

company (“Competitive Activity”). In the event the Employee engages in a Competitive Activity, any unvested Restricted Shares shall be forfeited by the Employee and become the property of the Company.

(iii) In the event of a Change in Control (as defined in the Plan) in connection with which the Award is assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board and after which the Employee ceases to be an employee of the Company due to termination (A) by the Company not for Cause or (B) by the Employee for Good Reason (as defined below), in either case, on or before the second anniversary of the occurrence of the Change in Control, the Restricted Shares, to the extent not already vested, shall become immediately vested in full upon such termination of employment. “Good Reason” shall have the meaning given to such term in any existing employment agreement between the Employee and the Company or Subsidiary as in effect on the date of grant of this Award or, in the absence of such an existing employment agreement in effect on the date of grant defining such term, it shall mean, without the Employee’s written consent, (a) the material diminution of any material duties or responsibilities of the Employee without the same being corrected within thirty (30) days after being given written notice thereof; or (b) a material reduction in the Employee’s base salary without the same being corrected within thirty (30) days after being given written notice thereof.

(iv) If the Employee ceases to be an Employee of the Company for any other reason prior to the date the Restricted Shares become vested, the Award shall be forfeited by the Employee and become the property of the Company.

(v) For purposes of this Agreement, service with any of the Company’s Subsidiaries (as defined in the Plan) shall be considered to be service with the Company.

(c) Change in Control; Award Not Assumed. Notwithstanding any provision of this Agreement to the contrary, upon the occurrence of a Change in Control in connection with which the Award is not assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board, the Award shall vest in full on the effective date of the Change in Control.

(d) Certificates. Each certificate issued in respect of Restricted Shares awarded hereunder shall be issued in book entry format with the Company’s transfer agent and shall bear a legend disclosing the restrictions on transferability imposed on such Restricted Shares by this Agreement (the “Restrictive Legend”). Upon the vesting of Restricted Shares pursuant to Section 2 hereof and the satisfaction of any withholding tax liability pursuant to Section 5 hereof, such vested Shares, not bearing the Restrictive Legend, shall be delivered to the Employee.

(e) Rights of a Stockholder. Prior to the time a Restricted Share is fully vested hereunder, the Employee shall have no right to transfer, pledge, hypothecate or otherwise encumber such Restricted Share. During such period, the Employee shall have all other rights of a stockholder, including, but not limited to, the right to vote and to receive dividends (subject to Section 2(a) hereof) at the time paid on such Restricted Shares.

(f) No Right to Continued Employment. This Award shall not confer upon the Employee any right with respect to continuance of employment by the Company nor shall this Award interfere with the right of the Company to terminate the Employee’s employment at any time.

3. Transfer of Shares. The Shares delivered hereunder, or any interest therein, may be sold, assigned, pledged, hypothecated, encumbered, or transferred or disposed of in any other manner,

in whole or in part, only in compliance with the terms, conditions and restrictions as set forth in the governing instruments of the Company, applicable United States federal and state securities laws or any other applicable laws or regulations and the terms and conditions hereof.

4. Expenses of Issuance of Shares. The issuance of stock certificates hereunder shall be without charge to the Employee. The Company shall pay any issuance, stamp or documentary taxes (other than transfer taxes) or charges imposed by any governmental body, agency or official (other than income taxes) or by reason of the issuance of Shares.

5. Withholding. No later than the date of vesting of (or the date of an election by the Employee under Section 83(b) of the Code with respect to) the Award granted hereunder, the Employee shall pay to the Company or make arrangements satisfactory to the Committee regarding payment of any federal, state or local taxes of any kind required by law to be withheld at such time with respect to such Award and the Company shall, to the extent permitted or required by law, have the right to deduct from any payment of any kind otherwise due to the Employee, federal, state and local taxes of any kind required by law to be withheld at such time.

6. References. References herein to rights and obligations of the Employee shall apply, where appropriate, to the Employee's legal representative or estate without regard to whether specific reference to such legal representative or estate is contained in a particular provision of this Agreement.

7. Notices. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given when delivered personally or by courier, or sent by certified or registered mail, postage prepaid, return receipt requested, duly addressed to the party concerned at the address indicated below or to such changed address as such party may subsequently by similar process give notice of:

If to the Company:

Arch Capital Group Ltd.  
Waterloo House, Ground Floor  
100 Pitts Bay Road  
Pembroke HM 08 Bermuda  
Attn.: Secretary

If to the Employee:

To the last address delivered to the Company by the  
Employee in the manner set forth herein.

8. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of New York, without giving effect to principles of conflict of laws.

9. Entire Agreement. This Agreement and the Plan constitute the entire agreement among the parties relating to the subject matter hereof, and any previous agreement or understanding among the parties with respect thereto is superseded by this Agreement and the Plan.

10. Counterparts. This Agreement may be executed in two counterparts, each of which shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

ARCH CAPITAL GROUP LTD.

By: /s/ François Morin

Name: François Morin

Title: EVP, CFO & Treasurer

/s/ Constantine Iordanou

Constantine Iordanou

## ARCH CAPITAL GROUP LTD.

## Non-Qualified Stock Option Agreement

FOR GOOD AND VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Arch Capital Group Ltd. (the “Company”), a Bermuda company, hereby grants to Constantine Iordanou, an employee of the Company on the date hereof (the “Option Holder”), the option to purchase common shares, \$0.0011 par value per share, of the Company (“Shares”), upon the following terms:

WHEREAS, the Option Holder has been granted the following award under the Company’s 2015 Long Term Incentive and Share Award Plan (the “Plan”);

(a) Grant. The Option Holder is hereby granted an option (the “Option”) to purchase 23,751\* Shares (the “Option Shares”) pursuant to the Plan, the terms of which are incorporated herein by reference. The Option is granted as of May 9, 2018 (the “Date of Grant”) and such grant is subject to the terms and conditions herein and the terms and conditions of the applicable provisions of the Plan. This Option shall not be treated as an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended. In the event of any conflict between this Agreement and the Plan, the Plan shall control.

(b) Status of Option Shares. Upon issue, the Option Shares shall rank equally in all respects with the other Shares.

(c) Option Price. The purchase price for the Option Shares shall be, except as herein provided, \$26.46 per Option Share, hereinafter sometimes referred to as the “Option Price,” payable immediately in full upon the exercise of the Option.

(d) Term of Option. The Option may be exercised only during the period (the “Option Period”) set forth in paragraph (f) below and shall remain exercisable until the tenth anniversary of the Date of Grant. Thereafter, the Option Holder shall cease to have any rights in respect thereof. The right to exercise the Option shall be subject to sooner termination as provided in paragraph (j) below.

(e) No Rights of Shareholder. The Option Holder shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity.

(f) Exercisability. Except as otherwise set forth in paragraph (j) below, the Option shall become exercisable in two equal annual installments on the first and second anniversaries of the Date of Grant, in each case subject to paragraph (j) below. Subject to paragraph (j) below, the Option may be exercised at any time or from time to time during the Option Period in regard to all or any portion of the Option which is then exercisable, as may be adjusted pursuant to paragraph (g) below.

(g) Anti-dilution Adjustment. For the avoidance of doubt, the terms of Section 4(c) of the Plan, relating to anti-dilution adjustments, will apply to the Option.

---

\*Reflects a 3 for 1 share split that was approved at the Company’s May 9, 2018 Annual General Meeting.

(h) Nontransferability. The Option, or any interest therein, may not be assigned or otherwise transferred, disposed of or encumbered by the Option Holder, other than by will or by the laws of descent and distribution. During the lifetime of the Option Holder, the Option shall be exercisable only by the Option Holder or by his or her guardian or legal representative. Notwithstanding the foregoing, the Option may be transferred by the Option Holder to members of his or her “immediate family” or to a trust or other entity established for the exclusive benefit of solely one or more members of the Option Holder’s “immediate family.” Any Option held by the transferee will continue to be subject to the same terms and conditions that were applicable to the Option immediately prior to the transfer, except that the Option will be transferable by the transferee only by will or the laws of descent and distribution. For purposes hereof, “immediate family” means the Option Holder’s children, stepchildren, grandchildren, parents, stepparents, grandparents, spouse, siblings (including half brothers and sisters), in laws, and relationships arising because of legal adoption.

(i) Exercise of Option. In order to exercise the Option, the Option Holder shall, in the manner directed by the Company, specify the whole number of Option Shares in respect of which the Option is being exercised, accompanied by payment, in a manner acceptable to the Company (which shall include a broker assisted exercise arrangement), of the Option Price for the Option Shares for which the Option is being exercised. Payment to the Company in cash or Shares already owned by the Option Holder (provided that the Option Holder has owned such Shares for a minimum period of six months or has purchased such Shares on the open market) and having a total Fair Market Value equal to the exercise price, or in a combination of cash and such Shares, shall be deemed acceptable for purposes hereof. In addition, in lieu of making payment of the exercise price of the Option and receiving the number of Shares for which the Option is being exercised as described above, the Option Holder may instead elect to exercise the Option by making no cash exercise price payment but having the Company issue to the Option Holder the number of Shares (rounded down to the nearest whole number) equal to the net result obtained by (A) subtracting the exercise price per Share from the Fair Market Value per Share on the date of exercise, (B) multiplying the difference by the number of Shares for which the Option is being exercised, and (C) dividing the product by the Fair Market Value per Share on the date of exercise. For the avoidance of doubt, if the calculation in the immediately preceding sentence results in a negative number, no Shares will be issued upon exercise. Option Shares will be issued accordingly by the Company, and a share certificate dispatched or electronic delivery of such Option Shares to the Option Holder within 30 days.

The Company shall not be required to issue fractional Shares upon the exercise of the Option. If any fractional interest in a Share would be deliverable upon the exercise of the Option in whole or in part but for the provisions of this paragraph, the Company, in lieu of delivering any such fractional share therefor, shall pay a cash adjustment therefor in an amount equal to their Fair Market Value multiplied by the fraction of the fractional share which would otherwise have been issued hereunder. Anything to the contrary herein notwithstanding, the Company shall not be obligated to issue any Option Shares hereunder if the issuance of such Option Shares would violate the provision of any applicable law, in which event the Company shall, as soon as practicable, take whatever action it reasonably can so that such Option Shares may be issued without resulting in such violations of law.

(j) Termination of Service.

1. In the event the Option Holder ceases to be an employee of the Company due to the Option Holder’s death or Permanent Disability (as defined in the

Company's Incentive Compensation Plan on the date hereof), the Option, to the extent not already exercisable in full, shall become immediately exercisable in full and shall continue to be exercisable by the Option Holder (or the Option Holder's Beneficiary or estate in the event of the Option Holder's death) for a period of three years following such termination of employment (but not beyond the Option Period).

2. In the event of termination of employment (other than by the Company for Cause, as such term is defined in the Company's Incentive Compensation Plan on the date hereof and other than as set forth in paragraphs (j)(1) or (j)(3) hereof) after the attainment of Retirement Age (as defined in the Company's Incentive Compensation Plan on the date hereof), the Option shall continue to become exercisable on the schedule set forth in paragraph (f) above so long as the Option Holder does not, without the written consent of the Company, engage in any activity in competition with any activity of the Company or any of its Subsidiaries other than (i) serving on the board of directors (or similar governing body) of another company or (ii) serving as a consultant for no more than 26 weeks per calendar year providing services that do not, in whole or in part, relate to the business or operations of an insurance or reinsurance company ("Competitive Activity") and shall continue to be exercisable by the Option Holder (or the Option Holder's Beneficiary or estate in the event of the Option Holder's death) for the remainder of the Option Period. In the event the Option Holder engages in a Competitive Activity, (A) the Option, to the extent then exercisable, may be exercised for 30 days following the date on which the Option Holder engages in such Competitive Activity (but not beyond the Option Period) and (B) the Option, to the extent then not exercisable, shall be immediately forfeited.

3. In the event of a Change in Control (as defined in the Plan) in connection with which the Option is assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board and after which the Option Holder ceases to be an employee of the Company due to termination (A) by the Company not for Cause or (B) by the Option Holder for Good Reason (as defined below), in either case, on or before the second anniversary of the occurrence of the Change in Control, the Option, to the extent not already exercisable in full, shall become immediately exercisable in full and shall continue to be exercisable by the Option Holder for a period of 90 days following such termination of employment (but not beyond the Option Period). "Good Reason" shall have the meaning given to such term in any existing employment agreement between the Option Holder and the Company or Subsidiary as in effect on the date of grant of this Option or, in the absence of such an existing employment agreement in effect on the date of grant defining such term, it shall mean, without the Option Holder's written consent, (a) the material diminution of any material duties or responsibilities of the Option Holder without the same being corrected within thirty (30) days after being given written notice thereof; or (b) a material reduction in the Option Holder's base salary without the same being corrected within thirty (30) days after being given written notice thereof.

4. In the event that the Option Holder ceases to be an employee of the Company for any other reason, except due to a termination of the Option Holder's employment by the Company for Cause, (A) the Option, to the extent then exercisable, may be exercised for 90 days following termination of employment (but not beyond the Option Period) and (B) the Option, to the extent then not exercisable, shall be immediately forfeited.

5. In the event of a termination of the Option Holder's employment for Cause, the Option shall immediately cease to be exercisable and shall be immediately forfeited.

6. For purposes of this Option, service with any of the Company's Subsidiaries (as defined in the Plan) shall be considered to be service with the Company.

(k) Change in Control; Option Not Assumed. Notwithstanding any provision of this Agreement to the contrary, upon the occurrence of a Change in Control in connection with which the Option is not assumed by the surviving entity or otherwise equitably converted or substituted in connection therewith in a manner approved by the Committee or the Board, the Option shall vest in full on the effective date of the Change in Control.

(l) Obligations as to Capital. The Company agrees that it will at all times maintain authorized and unissued share capital sufficient to fulfill all of its obligations under the Option.

(m) Transfer of Shares. The Option, the Option Shares, or any interest in either, may be sold, assigned, pledged, hypothecated, encumbered, or transferred or disposed of in any other manner, in whole or in part, only in compliance with the terms, conditions and restrictions as set forth in the governing instruments of the Company, applicable United States federal and state securities laws and the terms and conditions hereof.

(n) Expenses of Issuance of Option Shares. The issuance of stock certificates or the electronic delivery of Option Shares upon the exercise of the Option in whole or in part, shall be without charge to the Option Holder. The Company shall pay any issuance, stamp or documentary taxes (other than transfer taxes) or charges imposed by any governmental body, agency or official (other than income taxes) by reason of the exercise of the Option in whole or in part or the resulting issuance of the Option Shares.

(o) Withholding. No later than the date of exercise of the Option granted hereunder, the Option Holder shall pay to the Company or make arrangements satisfactory to the Committee regarding payment of any federal, state or local taxes of any kind required by law to be withheld upon the exercise of such Option and the Company shall, to the extent permitted or required by law, have the right to deduct from any payment of any kind otherwise due to the Option Holder, federal, state and local taxes of any kind required by law to be withheld upon the exercise of such Option.

(p) References. References herein to rights and obligations of the Option Holder shall apply, where appropriate, to the Option Holder's legal representative or estate without regard to whether specific reference to such legal representative or estate is contained in a particular provision of this Option.

(q) Notices. Any notice required or permitted to be given under this agreement shall be in writing and shall be deemed to have been given when delivered personally or by courier, or sent by certified or registered mail, postage prepaid, return receipt requested, duly addressed to the party concerned at the address indicated below or to such changed address as such party may subsequently by similar process give notice of:

If to the Company:

Arch Capital Group Ltd.:  
Waterloo House, Ground Floor  
100 Pitts Bay Road  
Pembroke HM 08 Bermuda  
Attn: Secretary

If to the Option Holder:

The last address delivered to the Company by the Option Holder in the manner set forth herein.

(r) Governing Law. This agreement shall be governed by and construed in accordance with the laws of New York, without giving effect to principles of conflict of laws thereof.

(s) Entire Agreement. This agreement and the Plan constitute the entire agreement among the parties relating to the subject matter hereof, and any previous agreement or understanding among the parties with respect thereto is superseded by this agreement and the Plan.

(t) Counterparts. This agreement may be executed in two counterparts, each of which shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this agreement as of the Date of Grant.

ARCH CAPITAL GROUP LTD.

By: /s/ François Morin

Name: François Morin

Title: EVP, CFO & Treasurer

/s/ Constantine Iordanou

Constantine Iordanou

August 8, 2018

Securities and Exchange Commission  
100 F Street, N.E.  
Washington, DC 20549

Commissioners:

We are aware that our report dated August 8, 2018 on our review of interim financial information of Arch Capital Group Ltd., which appears in this Quarterly Report on Form 10-Q, is incorporated by reference in the Registration Statements on Form S-3 (Nos. 333-221344, 333-221344-01 and 333-221344-02) and in the Registration Statements on Forms S-8 (Nos. 333-99974, 333-86145, 333-82772, 333-211193, 333-72182, 333-98971, 333-124422, 333-142835, 333-181308, 333-203993 and 333-224783) of Arch Capital Group Ltd.

Very truly yours,

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP  
New York, NY

**Certification**  
**of Chief Executive Officer**  
**Pursuant to Section 302 of the**  
**Sarbanes-Oxley Act of 2002**

I, Marc Grandisson, certify that:

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

Date: August 8, 2018

By: /s/ Marc Grandisson

Name: Marc Grandisson

Title: President and Chief Executive Officer

**Certification**  
**of Chief Financial Officer**  
**Pursuant to Section 302 of the**  
**Sarbanes-Oxley Act of 2002**

I, François Morin, certify that:

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

Date: August 8, 2018

By: /s/ François Morin

Name: François Morin

Title: Executive Vice President, Chief Financial Officer  
and Treasurer

**Certification Pursuant to Chapter 63, Title 18 United States Code §1350****As Adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report of Arch Capital Group Ltd. (the “Company”) on Form 10-Q for the period ending June 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Marc Grandisson, as President and Chief Executive Officer of the Company, certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934; and
- (2) the information contained in such report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 8, 2018

By: /s/ Marc Grandisson

Name: Marc Grandisson

Title: President and Chief Executive Officer

A signed original of this written statement required by Section 906 or other document authenticating, acknowledging or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Arch Capital Group Ltd. and will be retained by Arch Capital Group Ltd. and furnished to the Securities and Exchange Commission or its staff upon request.

**Certification Pursuant to Chapter 63, Title 18 United States Code §1350****As Adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report of Arch Capital Group Ltd. (the “Company”) on Form 10-Q for the period ending June 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), François Morin, as Executive Vice President, Chief Financial Officer and Treasurer of the Company, certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934; and
- (2) the information contained in such report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 8, 2018

By: /s/ François Morin

Name: François Morin

Title: Executive Vice President, Chief Financial Officer and  
Treasurer

A signed original of this written statement required by Section 906 or other document authenticating, acknowledging or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Arch Capital Group Ltd. and will be retained by Arch Capital Group Ltd. and furnished to the Securities and Exchange Commission or its staff upon request.