

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 March 31, 2019

OR

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

001-37963

(Commission file number)

ATHENE HOLDING LTD.

(Exact name of registrant as specified in its charter)

Bermuda

(State or other jurisdiction of
incorporation or organization)

98-0630022

(I.R.S. Employer
Identification Number)

**96 Pitts Bay Road
Pembroke, HM08, Bermuda
(441) 279-8400**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See 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.

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

| Title of each class | Trading Symbol | Name of each exchange on which registered |
|-----------------------|----------------|---|
| Class A common shares | ATH | New York Stock Exchange |

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

The number of shares of each class of our common stock outstanding is set forth in the table below, as of April 5, 2019:

| | | | |
|-------------------------|-------------|-------------------------|-----------|
| Class A common shares | 161,698,498 | Class M-2 common shares | 841,011 |
| Class B common shares | 25,433,465 | Class M-3 common shares | 1,001,110 |
| Class M-1 common shares | 3,339,890 | Class M-4 common shares | 4,074,026 |

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As used in this *Quarterly Report on Form 10-Q (report)*, unless the context otherwise indicates, any reference to “Athene,” “our Company,” “the Company,” “us,” “we” and “our” refer to Athene Holding Ltd. together with its consolidated subsidiaries and any reference to “AHL” refers to Athene Holding Ltd. only.

Forward-Looking Statements

Certain statements in this report are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 (Securities Act), as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act). You can identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as “anticipate,” “estimate,” “expect,” “project,” “plan,” “intend,” “seek,” “assume,” “believe,” “may,” “will,” “should,” “could,” “would,” “likely” and other words and terms of similar meaning, including the negative of these or similar words and terms, in connection with any discussion of the timing or nature of future operating or financial performance or other events. However, not all forward-looking statements contain these identifying words. Forward-looking statements appear in a number of places throughout and give our current expectations and projections relating to our business, financial condition, results of operations, plans, strategies, objectives, future performance and other matters.

We caution you that forward-looking statements are not guarantees of future performance and that our actual consolidated financial condition, results of operations, liquidity and cash flows may differ materially from those made in or suggested by the forward-looking statements contained in this report. A number of important factors could cause actual results or conditions to differ materially from those contained or implied by the forward-looking statements, including the risks discussed in *Part I—Item 1A. Risk Factors* included in our Annual Report on Form 10-K for the year ended December 31, 2018 (2018 Annual Report). Factors that could cause actual results or conditions to differ from those reflected in the forward-looking statements contained in this report include:

- the accuracy of management’s assumptions and estimates;
- variability in the amount of statutory capital that our insurance and reinsurance subsidiaries have or are required to hold;
- interest rate and/or foreign currency fluctuations;
- our potential need for additional capital in the future and the potential unavailability of such capital to us on favorable terms or at all;
- changes in relationships with important parties in our product distribution network;
- the activities of our competitors and our ability to grow our retail business in a highly competitive environment;
- the impact of general economic conditions on our ability to sell our products and on the fair value of our investments;
- our ability to successfully acquire new companies or businesses and/or integrate such acquisitions into our existing framework;
- downgrades, potential downgrades or other negative actions by rating agencies;
- our dependence on key executives and inability to attract qualified personnel, or the potential loss of Bermudian personnel as a result of Bermuda employment restrictions;
- market and credit risks that could diminish the value of our investments;
- the impact of changes to the creditworthiness of our reinsurance and derivative counterparties;
- changes in consumer perception regarding the desirability of annuities as retirement savings products;
- potential litigation (including class action litigation), enforcement investigations or regulatory scrutiny against us and our subsidiaries, which we may be required to defend against or respond to;
- the impact of new accounting rules or changes to existing accounting rules on our business;
- interruption or other operational failures in telecommunication and information technology and other operating systems, as well as our ability to maintain the security of those systems;
- the termination by Athene Asset Management LLC (AAM) of its investment management agreements with us and limitations on our ability to terminate such arrangements;
- AAM’s dependence on key executives and inability to attract qualified personnel;
- increased regulation or scrutiny of alternative investment advisers and certain trading methods;
- potential changes to regulations affecting, among other things, transactions with our affiliates, the ability of our subsidiaries to make dividend payments or distributions to AHL, acquisitions by or of us, minimum capitalization and statutory reserve requirements for insurance companies and fiduciary obligations on parties who distribute our products;
- suspension or revocation of our subsidiaries’ insurance and reinsurance licenses or our inability to procure licenses associated with new products or services;
- increases in our tax liability resulting from the Base Erosion and Anti-Abuse Tax (BEAT);
- improper interpretation or application of Public Law no. 115-97, the Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018 (Tax Act) or subsequent changes to, clarifications of or guidance under the Tax Act that is counter to our interpretation and has retroactive effect;
- AHL or any of its non-United States (U.S.) subsidiaries becoming subject to U.S. federal income taxation;
- adverse changes in U.S. tax law;
- our being subject to U.S. withholding tax under the Foreign Account Tax Compliance Act (FATCA);
- our potential inability to pay dividends or distributions; and
- other risks and factors discussed elsewhere in this report, *Part I—Item 1A. Risk Factors* included in our 2018 Annual Report and those discussed elsewhere in our 2018 Annual Report.

We caution you that the important factors referenced above may not be exhaustive. In light of these risks, you should not place undue reliance upon any forward-looking statements contained in this report. The forward-looking statements included in this report are made only as of the date hereof. We undertake no obligation, except as may be required by law, to publicly update or revise any forward-looking statement as a result of new information, future events or otherwise. Comparisons of results for current and any prior periods are not intended to express any future trends, or indications of future performance, unless expressed as such, and should only be viewed as historical data.

GLOSSARY OF SELECTED TERMS

Unless otherwise indicated in this report, the following terms have the meanings set forth below:

Entities

| Term or Acronym | Definition |
|------------------------|--|
| A-A Mortgage | A-A Mortgage Opportunities, L.P. |
| AAA Investor | AAA Guarantor – Athene, L.P. |
| AAIA | Athene Annuity and Life Company |
| AAM | Athene Asset Management LLC |
| AARe | Athene Annuity Re Ltd., a Bermuda reinsurance subsidiary |
| ACRA | Athene Co-Invest Reinsurance Affiliate 1A Ltd. |
| ADIP | Apollo/Athene Dedicated Investment Program |
| AGM | Apollo Global Management, LLC |
| AHL | Athene Holding Ltd. |
| ALRe | Athene Life Re Ltd., a Bermuda reinsurance subsidiary |
| AmeriHome | AmeriHome Mortgage Company, LLC |
| Apollo | Apollo Global Management, LLC, together with its subsidiaries |
| Apollo Group | (1) Apollo, (2) the AAA Investor, (3) any investment fund or other collective investment vehicle whose general partner or managing member is owned, directly or indirectly, by Apollo or one or more of Apollo’s subsidiaries, (4) BRH Holdings GP, Ltd. and its shareholders and (5) any affiliate of any of the foregoing (except that AHL and its subsidiaries and employees of AHL, its subsidiaries or AAM are not members of the Apollo Group) |
| Athene USA | Athene USA Corporation |
| Athora | Athora Holding Ltd., formerly known as AGER Bermuda Holding Ltd. |
| BMA | Bermuda Monetary Authority |
| CoInvest VI | AAA Investments (Co-Invest VI), L.P. |
| CoInvest VII | AAA Investments (Co-Invest VII), L.P. |
| LIMRA | Life Insurance and Market Research Association |
| MidCap | MidCap FinCo Limited |
| NAIC | National Association of Insurance Commissioners |
| NYSDFS | New York State Department of Financial Services |
| RLI | ReliaStar Life Insurance Company |
| Treasury | United States Department of the Treasury |
| Voya | Voya Financial, Inc. |
| VIAC | Voya Insurance and Annuity Company |
| Venerable | Venerable Holdings, Inc., together with its subsidiaries |

Certain Terms & Acronyms

| Term or Acronym | Definition |
|-------------------------|---|
| ABS | Asset-backed securities |
| ACL | Authorized control level RBC as defined by the model created by the National Association of Insurance Commissioners |
| ALM | Asset liability management |
| ALRe RBC | The risk-based capital ratio of ALRe, when applying the NAIC risk-based capital factors. |
| Alternative investments | Alternative investments, including investment funds, CLO equity positions and certain other debt instruments considered to be equity-like |
| Base of earnings | Earnings generated from our results of operations and the underlying profitability drivers of our business |
| Bermuda capital | The capital of ALRe calculated under U.S. statutory accounting principles, including that for policyholder reserve liabilities which are subjected to U.S. cash flow testing requirements, but excluding certain items that do not exist under our applicable Bermuda requirements, such as interest maintenance reserves |
| Block reinsurance | A transaction in which the ceding company cedes all or a portion of a block of previously issued annuity contracts through a reinsurance agreement |
| BSCR | Bermuda Solvency Capital Requirement |
| CAL | Company action level risk-based capital as defined by the model created by the National Association of Insurance Commissioners |
| CLO | Collateralized loan obligation |
| CMBS | Commercial mortgage-backed securities |
| CML | Commercial mortgage loans |
| Cost of crediting | The interest credited to the policyholders on our fixed annuities, including, with respect to our fixed indexed annuities, option costs, as well as institutional costs related to institutional products, presented on an annualized basis for interim periods |
| Cost of funds | Cost of funds includes liability costs related to cost of crediting on both deferred annuities and institutional products, as well as other liability costs. Cost of funds is computed as the total liability costs divided by the average invested assets for the relevant period. Presented on an annualized basis for interim periods. |
| DAC | Deferred acquisition costs |
| Deferred annuities | Fixed indexed annuities, annual reset annuities and multi-year guaranteed annuities |
| DSI | Deferred sales inducement |
| Excess capital | Capital in excess of the level management believes is needed to support our current operating strategy |
| FIA | Fixed indexed annuity, which is an insurance contract that earns interest at a crediting rate based on a specified index on a tax-deferred basis |
| Fixed annuities | FIA's together with fixed rate annuities |
| Fixed rate annuity | An insurance contract that offers tax-deferred growth and the opportunity to produce a guaranteed stream of retirement income for the lifetime of its policyholder |
| Flow reinsurance | A transaction in which the ceding company cedes a portion of newly issued policies to the reinsurer |
| GAAP | Accounting principles generally accepted in the United States of America |
| GLWB | Guaranteed lifetime withdrawal benefit |
| GMDB | Guaranteed minimum death benefit |
| IMA | Investment management agreement |
| IMO | Independent marketing organization |
| Invested assets | The sum of (a) total investments on the consolidated balance sheet with available-for-sale securities at amortized cost, excluding derivatives, (b) cash and cash equivalents and restricted cash, (c) investments in related parties, (d) accrued investment income, (e) consolidated variable interest entities' assets, liabilities and noncontrolling interest and (f) policy loans ceded (which offset the direct policy loans in total investments). Invested assets includes investments supporting assumed funds withheld and modco agreements and excludes assets associated with funds withheld liabilities related to business exited through reinsurance agreements and derivative collateral (offsetting the related cash positions) |
| Investment margin | Investment margin applies to deferred annuities and is the excess of our net investment earned rate over the cost of crediting to our policyholders, presented on an annualized basis for interim periods |
| Liability outflows | The aggregate of withdrawals on our deferred annuities, maturities of our funding agreements, payments on payout annuities, and pension risk benefit payments |
| MMS | Minimum margin of solvency |
| Modco | Modified coinsurance |

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| Term or Acronym | Definition |
|----------------------------|--|
| MVA | Market value adjustment |
| MYGA | Multi-year guaranteed annuity |
| Net investment earned rate | Income from our invested assets divided by the average invested assets for the relevant period, presented on an annualized basis for interim periods |
| Net investment spread | Net investment spread measures our investment performance less the total cost of our liabilities, presented on an annualized basis for interim periods |
| Other liability costs | Other liability costs include DAC, DSI and VOBA amortization, rider reserves, institutional costs, the cost of liabilities on products other than deferred annuities including offsets for premiums, product charges and other revenues |
| OTTI | Other-than-temporary impairment |
| Payout annuities | Annuities with a current cash payment component, which consist primarily of single premium immediate annuities, supplemental contracts and structured settlements |
| Policy loan | A loan to a policyholder under the terms of, and which is secured by, a policyholder's policy |
| PRT | Pension risk transfer |
| RBC | Risk-based capital |
| Reserve liabilities | The sum of (a) interest sensitive contract liabilities, (b) future policy benefits, (c) dividends payable to policyholders, and (d) other policy claims and benefits, offset by reinsurance recoverable, excluding policy loans ceded. Reserve liabilities also includes the reserves related to assumed modco agreements in order to appropriately match the costs incurred in the consolidated statements of income with the liabilities. Reserve liabilities is net of the ceded liabilities to third-party reinsurers as the costs of the liabilities are passed to such reinsurers and therefore we have no net economic exposure to such liabilities, assuming our reinsurance counterparties perform under our agreements |
| Rider reserves | Guaranteed lifetime withdrawal benefits and guaranteed minimum death benefits reserves |
| RMBS | Residential mortgage-backed securities |
| RML | Residential mortgage loan |
| Sales | All money paid into an individual annuity, including money paid into new contracts with initial purchase occurring in the specified period and existing contracts with initial purchase occurring prior to the specified period (excluding internal transfers) |
| SPIA | Single premium immediate annuity |
| Surplus assets | Assets in excess of policyholder obligations, determined in accordance with the applicable domiciliary jurisdiction's statutory accounting principles |
| TAC | Total adjusted capital as defined by the model created by the NAIC |
| U.S. RBC Ratio | The CAL RBC ratio for AADE, our parent U.S. insurance company |
| VIE | Variable interest entity |
| VOBA | Value of business acquired |

Item 1. Financial Statements

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ATHENE HOLDING LTD.

Condensed Consolidated Balance Sheets (Unaudited)

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|--|-------------------|-------------------|
| Assets | | |
| Investments | | |
| Available-for-sale securities, at fair value (amortized cost: 2019 – \$63,440 and 2018 – \$60,025) | \$ 64,655 | \$ 59,265 |
| Trading securities, at fair value | 2,256 | 1,949 |
| Equity securities, at fair value | 252 | 216 |
| Mortgage loans, net of allowances (portion at fair value: 2019 – \$32 and 2018 – \$32) | 11,042 | 10,340 |
| Investment funds (portion at fair value: 2019 – \$159 and 2018 – \$182) | 683 | 703 |
| Policy loans | 487 | 488 |
| Funds withheld at interest (portion at fair value: 2019 – \$446 and 2018 – \$57) | 15,241 | 15,023 |
| Derivative assets | 1,920 | 1,043 |
| Short-term investments, at fair value | 155 | 191 |
| Other investments (portion at fair value: 2019 – \$52 and 2018 – \$52) | 121 | 122 |
| Total investments | 96,812 | 89,340 |
| Cash and cash equivalents | 3,021 | 2,911 |
| Restricted cash | 497 | 492 |
| Investments in related parties | | |
| Available-for-sale securities, at fair value (amortized cost: 2019 – \$1,696 and 2018 – \$1,462) | 1,684 | 1,437 |
| Trading securities, at fair value | 239 | 249 |
| Equity securities, at fair value | 301 | 120 |
| Mortgage loans | 291 | 291 |
| Investment funds (portion at fair value: 2019 – \$232 and 2018 – \$201) | 2,290 | 2,232 |
| Funds withheld at interest (portion at fair value: 2019 – \$214 and 2018 – \$(110)) | 13,683 | 13,577 |
| Other investments | 387 | 386 |
| Accrued investment income (related party: 2019 – \$22 and 2018 – \$25) | 751 | 682 |
| Reinsurance recoverable (related party: 2019 – \$334 and 2018 – \$344; portion at fair value: 2019 – \$1,737 and 2018 – \$1,676) | 5,647 | 5,534 |
| Deferred acquisition costs, deferred sales inducements and value of business acquired | 5,619 | 5,907 |
| Other assets (related party: 2019 – \$4 and 2018 – \$357) | 962 | 1,635 |
| Assets of consolidated variable interest entities | | |
| Investments | | |
| Trading securities, at fair value – related party | 34 | 35 |
| Equity securities, at fair value – related party | 6 | 50 |
| Investment funds (related party: 2019 – \$580 and 2018 – \$583; portion at fair value: 2019 – \$564 and 2018 – \$567) | 619 | 624 |
| Cash and cash equivalents | 2 | 2 |
| Other assets | 12 | 1 |
| Total assets | \$ 132,857 | \$ 125,505 |

(Continued)

See accompanying notes to the unaudited condensed consolidated financial statements

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ATHENE HOLDING LTD.

Condensed Consolidated Balance Sheets (Unaudited)

(In millions, except per share data)

| | March 31, 2019 | December 31, 2018 |
|---|-------------------|-------------------|
| Liabilities and Equity | | |
| Liabilities | | |
| Interest sensitive contract liabilities (related party: 2019 – \$16,533 and 2018 – \$16,850; portion at fair value: 2019 – \$10,085 and 2018 – \$8,901) | \$ 98,452 | \$ 96,610 |
| Future policy benefits (related party: 2019 – \$1,347 and 2018 – \$1,259; portion at fair value: 2019 – \$2,226 and 2018 – \$2,173) | 19,016 | 16,704 |
| Other policy claims and benefits (related party: 2019 – \$15 and 2018 – \$10) | 162 | 142 |
| Dividends payable to policyholders | 118 | 118 |
| Long-term debt | 991 | 991 |
| Derivative liabilities | 85 | 85 |
| Payables for collateral on derivatives | 1,781 | 969 |
| Funds withheld liability (related party: 2019 – \$327 and 2018 – \$337; portion at fair value: 2019 – \$12 and 2018 – \$(1)) | 724 | 721 |
| Other liabilities (related party: 2019 – \$51 and 2018 – \$59) | 1,410 | 888 |
| Liabilities of consolidated variable interest entities | 1 | 1 |
| Total liabilities | 122,740 | 117,229 |
| Commitments and Contingencies (Note 9) | | |
| Equity | | |
| Common stock | | |
| Class A – par value \$0.001 per share; authorized: 2019 and 2018 – 425.0 shares; issued and outstanding: 2019 – 161.5 and 2018 – 162.4 shares | — | — |
| Class B – par value \$0.001 per share; convertible to Class A; authorized: 2019 and 2018 – 325.0 shares; issued and outstanding: 2019 – 25.4 and 2018 – 25.4 shares | — | — |
| Class M-1 – par value \$0.001 per share; convertible to Class A; authorized: 2019 and 2018 – 7.1 shares; issued and outstanding: 2019 – 3.4 and 2018 – 3.4 shares | — | — |
| Class M-2 – par value \$0.001 per share; convertible to Class A; authorized: 2019 and 2018 – 5.0 shares; issued and outstanding: 2019 – 0.8 and 2018 – 0.8 shares | — | — |
| Class M-3 – par value \$0.001 per share; convertible to Class A; authorized: 2019 and 2018 – 7.5 shares; issued and outstanding: 2019 – 1.0 and 2018 – 1.0 shares | — | — |
| Class M-4 – par value \$0.001 per share; convertible to Class A; authorized: 2019 and 2018 – 7.5 shares; issued and outstanding: 2019 – 4.1 and 2018 – 4.1 shares | — | — |
| Additional paid-in capital | 3,448 | 3,462 |
| Retained earnings | 5,963 | 5,286 |
| Accumulated other comprehensive income (loss) (related party: 2019 – \$(12) and 2018 – \$(25)) | 706 | (472) |
| Total shareholders' equity | 10,117 | 8,276 |
| Total liabilities and equity | \$ 132,857 | \$ 125,505 |

(Concluded)

See accompanying notes to the unaudited condensed consolidated financial statements

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ATHENE HOLDING LTD.

Condensed Consolidated Statements of Income (Unaudited)

| <i>(In millions, except per share data)</i> | Three months ended March 31, | |
|--|------------------------------|---------|
| | 2019 | 2018 |
| Revenues | | |
| Premiums (related party: 2019 – \$66 and 2018 – \$0) | \$ 1,966 | \$ 278 |
| Product charges (related party: 2019 – \$14 and 2018 – \$0) | 125 | 96 |
| Net investment income (related party investment income: 2019 – \$183 and 2018 – \$76; and related party investment expense: 2019 – \$92 and 2018 – \$83) | 1,066 | 855 |
| Investment related gains (losses) (related party: 2019 – \$317 and 2018 – \$17) | 1,772 | (236) |
| Other-than-temporary impairment investment losses | | |
| Other-than-temporary impairment losses | (2) | (3) |
| Other-than-temporary impairment losses reclassified to (from) other comprehensive income | 1 | — |
| Net other-than-temporary impairment losses | (1) | (3) |
| Other revenues | 12 | 6 |
| Revenues of consolidated variable interest entities | | |
| Net investment income (related party: 2019 – \$16 and 2018 – \$10) | 16 | 10 |
| Investment related gains (losses) (related party: 2019 – \$4 and 2018 – \$5) | 5 | 5 |
| Total revenues | 4,961 | 1,011 |
| Benefits and expenses | | |
| Interest sensitive contract benefits (related party: 2019 – \$183 and 2018 – \$0) | 1,516 | 31 |
| Amortization of deferred sales inducements | 5 | 20 |
| Future policy and other policy benefits (related party: 2019 – \$106 and 2018 – \$0) | 2,295 | 401 |
| Amortization of deferred acquisition costs and value of business acquired | 231 | 82 |
| Dividends to policyholders | 9 | 13 |
| Policy and other operating expenses (related party: 2019 – \$8 and 2018 – \$2) | 165 | 142 |
| Total benefits and expenses | 4,221 | 689 |
| Income before income taxes | 740 | 322 |
| Income tax expense | 32 | 45 |
| Net income | \$ 708 | \$ 277 |
| Earnings per share | | |
| Basic – Classes A, B, M-1, M-2, M-3 and M-4 | \$ 3.65 | \$ 1.40 |
| Diluted – Class A | 3.64 | 1.40 |
| Diluted – Class B | 3.65 | 1.40 |
| Diluted – Class M-1 | 3.65 | 1.40 |
| Diluted – Class M-2 | 3.65 | 1.39 |
| Diluted – Class M-3 | 3.65 | 1.38 |
| Diluted – Class M-4 | 3.15 | 0.97 |

See accompanying notes to the unaudited condensed consolidated financial statements

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ATHENE HOLDING LTD.

Condensed Consolidated Statements of Comprehensive Income (Loss) (Unaudited)

| <i>(In millions)</i> | Three months ended March 31, | |
|--|------------------------------|-----------------|
| | 2019 | 2018 |
| Net income | \$ 708 | \$ 277 |
| Other comprehensive income (loss), before tax | | |
| Unrealized investment gains (losses) on available-for-sale securities | 1,478 | (891) |
| Noncredit component of other-than-temporary impairment losses on available-for-sale securities | (1) | — |
| Unrealized gains (losses) on hedging instruments | (8) | (56) |
| Pension adjustments | (1) | 3 |
| Foreign currency translation adjustments | 1 | (8) |
| Other comprehensive income (loss), before tax | 1,469 | (952) |
| Income tax expense (benefit) related to other comprehensive income (loss) | 291 | (179) |
| Other comprehensive income (loss) | 1,178 | (773) |
| Comprehensive income (loss) | \$ 1,886 | \$ (496) |

See accompanying notes to the unaudited condensed consolidated financial statements

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ATHENE HOLDING LTD.

Condensed Consolidated Statements of Equity (Unaudited)

| <i>(In millions)</i> | Common stock | Additional paid-in capital | Retained earnings | Accumulated other comprehensive income (loss) | Total shareholders' equity |
|-------------------------------------|--------------|----------------------------|-------------------|---|----------------------------|
| Balance at December 31, 2017 | \$ — | \$ 3,472 | \$ 4,255 | \$ 1,449 | \$ 9,176 |
| Adoption of accounting standards | — | — | 39 | (42) | (3) |
| Net income | — | — | 277 | — | 277 |
| Other comprehensive loss | — | — | — | (773) | (773) |
| Issuance of shares, net of expenses | — | 1 | — | — | 1 |
| Stock-based compensation | — | 12 | — | — | 12 |
| Retirement or repurchase of shares | — | — | (3) | — | (3) |
| Balance at March 31, 2018 | <u>\$ —</u> | <u>\$ 3,485</u> | <u>\$ 4,568</u> | <u>\$ 634</u> | <u>\$ 8,687</u> |
| Balance at December 31, 2018 | \$ — | \$ 3,462 | \$ 5,286 | \$ (472) | \$ 8,276 |
| Net income | — | — | 708 | — | 708 |
| Other comprehensive income | — | — | — | 1,178 | 1,178 |
| Issuance of shares, net of expenses | — | 1 | — | — | 1 |
| Stock-based compensation | — | 5 | — | — | 5 |
| Retirement or repurchase of shares | — | (20) | (31) | — | (51) |
| Balance at March 31, 2019 | <u>\$ —</u> | <u>\$ 3,448</u> | <u>\$ 5,963</u> | <u>\$ 706</u> | <u>\$ 10,117</u> |

See accompanying notes to the unaudited condensed consolidated financial statements

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ATHENE HOLDING LTD.

Condensed Consolidated Statements of Cash Flows (Unaudited)

| <i>(In millions)</i> | Three months ended March 31, | |
|--|------------------------------|---------|
| | 2019 | 2018 |
| Cash flows from operating activities | | |
| Net income | \$ 708 | \$ 277 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | |
| Amortization of deferred acquisition costs and value of business acquired | 231 | 82 |
| Amortization of deferred sales inducements | 5 | 20 |
| Accretion of net investment premiums, discounts and other | (33) | (45) |
| Net investment (income) loss (related party: 2019 – \$18 and 2018 – \$(43)) | 25 | (29) |
| Net recognized (gains) losses on investments and derivatives (related party: 2019 – \$0 and 2018 – \$(24)) | (944) | 209 |
| Policy acquisition costs deferred | (173) | (122) |
| Changes in operating assets and liabilities: | | |
| Accrued investment income (related party: 2019 – \$3 and 2018 – \$0) | (69) | (27) |
| Interest sensitive contract liabilities (related party: 2019 – \$167 and 2018 – \$0) | 1,403 | (189) |
| Future policy benefits, other policy claims and benefits, dividends payable to policyholders and reinsurance recoverable (related party: 2019 – \$95 and 2018 – \$0) | 653 | 333 |
| Funds withheld assets and liabilities (related party: 2019 – \$(500) and 2018 – \$0) | (1,011) | (7) |
| Other assets and liabilities | 220 | 77 |
| Consolidated variable interest entities related: | | |
| Net recognized (gains) losses on investments and derivatives (related party: 2019 – \$(5) and 2018 – \$(6)) | (6) | (6) |
| Net cash provided by operating activities | 1,009 | 573 |
| Cash flows from investing activities | | |
| Sales, maturities and repayments of: | | |
| Available-for-sale securities (related party: 2019 – \$50 and 2018 – \$57) | 2,231 | 3,017 |
| Trading securities (related party: 2019 – \$0 and 2018 – \$1) | 31 | 24 |
| Equity securities | 10 | 2 |
| Mortgage loans | 354 | 396 |
| Investment funds (related party: 2019 – \$87 and 2018 – \$52) | 131 | 83 |
| Derivative instruments and other invested assets | 256 | 551 |
| Short-term investments | 104 | 103 |
| Purchases of: | | |
| Available-for-sale securities (related party: 2019 – \$(280) and 2018 – \$(158)) | (4,470) | (5,907) |
| Trading securities (related party: 2019 – \$(3) and 2018 – \$0) | (284) | (25) |
| Equity securities (related party: 2019 – \$(177) and 2018 – \$0) | (205) | (9) |
| Mortgage loans | (1,049) | (463) |
| Investment funds (related party: 2019 – \$(152) and 2018 – \$(182)) | (185) | (213) |
| Derivative instruments and other invested assets | (287) | (224) |
| Short-term investments (related party: 2019 – \$0 and 2018 – \$(72)) | (67) | (209) |
| Consolidated variable interest entities related: | | |
| Sales, maturities and repayments of investments (related party: 2019 – \$51 and 2018 – \$59) | 53 | 59 |
| Deconsolidation of Athora Holding Ltd. | — | (296) |
| Other investing activities, net | 601 | 227 |
| Net cash used in investing activities | (2,776) | (2,884) |

(Continued)

See accompanying notes to the unaudited condensed consolidated financial statements

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ATHENE HOLDING LTD.

Condensed Consolidated Statements of Cash Flows (Unaudited)

| <i>(In millions)</i> | Three months ended March 31, | |
|---|------------------------------|----------|
| | 2019 | 2018 |
| Cash flows from financing activities | | |
| Proceeds from long-term debt | \$ — | \$ 998 |
| Deposits on investment-type policies and contracts (related party: 2019 – \$101 and 2018 – \$0) | 2,793 | 1,774 |
| Withdrawals on investment-type policies and contracts (related party: 2019 – \$(106) and 2018 – \$0) | (1,638) | (1,474) |
| Payments for coinsurance agreements on investment-type contracts, net | (25) | (10) |
| Net change in cash collateral posted for derivative transactions | 812 | (1,178) |
| Repurchase of common stock | (51) | (3) |
| Other financing activities, net | (9) | 32 |
| Net cash provided by financing activities | 1,882 | 139 |
| Net increase (decrease) in cash and cash equivalents | 115 | (2,172) |
| Cash and cash equivalents at beginning of year ¹ | 3,405 | 4,997 |
| Cash and cash equivalents at end of period ¹ | \$ 3,520 | \$ 2,825 |
| Supplementary information | | |
| Non-cash transactions | | |
| Deposits on investment-type policies and contracts through reinsurance agreements (related party: 2019 – \$45 and 2018 – \$0) | \$ 208 | \$ 108 |
| Withdrawals on investment-type policies and contracts through reinsurance agreements (related party: 2019 – \$429 and 2018 – \$0) | 888 | 91 |
| Investments received from settlements on reinsurance agreements | 12 | — |
| Investments received from pension risk transfer premiums | 1,363 | — |
| Investment in Athora Holding Ltd. received upon deconsolidation | — | 108 |

¹ Includes cash and cash equivalents, restricted cash, and cash and cash equivalents of consolidated variable interest entities.

(Concluded)

See accompanying notes to the unaudited condensed consolidated financial statements

ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

1. Business, Basis of Presentation and Significant Accounting Policies

Athene Holding Ltd. (AHL), a Bermuda exempted company, together with its subsidiaries (collectively, Athene, we, our, us, or the Company), is a leading retirement services company that issues, reinsures and acquires retirement savings products in all United States (U.S.) states and the District of Columbia.

We conduct business primarily through the following consolidated subsidiaries:

- Our non-U.S. reinsurance subsidiaries, to which AHL's other insurance subsidiaries and third-party ceding companies directly and indirectly reinsure a portion of their liabilities, including Athene Life Re Ltd. (ALRe), a Bermuda exempted company; and
- Athene USA Corporation, an Iowa corporation (together with its subsidiaries, Athene USA).

In addition, we consolidate certain variable interest entities (VIEs), for which we determined we are the primary beneficiary.

Basis of Presentation—We have prepared the accompanying condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (GAAP) for interim financial information and the United States Securities and Exchange Commission's rules and regulations for Form 10-Q and Article 10 of Regulation S-X. The accompanying condensed consolidated financial statements are unaudited and reflect all adjustments, consisting only of normal recurring items, considered necessary for fair statement of the results for the interim periods presented. All significant intercompany accounts and transactions have been eliminated. Interim operating results are not necessarily indicative of the results expected for the entire year.

The condensed consolidated balance sheet as of December 31, 2018 has been derived from the audited financial statements, but does not include all of the information and footnotes required by GAAP for complete financial statements. Therefore, these condensed consolidated financial statements should be read in conjunction with our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2018. The preparation of financial statements requires the use of management estimates. Actual results may differ from estimates used in preparing the condensed consolidated financial statements.

Adopted Accounting Pronouncements

Leases (ASU 2019-01, ASU 2018-20, ASU 2018-11, ASU 2018-10, ASU 2018-01, ASU 2017-13 and ASU 2016-02)

These updates increase transparency and comparability for lease transactions. ASU 2016-02 requires a lessee to recognize a right-of-use asset and lease liability on the balance sheet for all leases with an original term longer than twelve months and disclose key information about leasing arrangements. Lessor accounting is largely unchanged.

ASU 2016-02 requires the adoption on a modified retrospective basis. However, ASU 2018-11 provides the option to recognize the cumulative effect as an adjustment to the opening balance of retained earnings in the year of adoption, while continuing to present all prior periods under the previous lease guidance. These updates also provide optional practical expedients in transition.

We adopted these updates effective January 1, 2019 by recording a lease liability and right-of-use asset related to office space, copiers, reserved areas and equipment at data centers, and other agreements. We will continue to present all prior periods under the previous lease guidance. We elected the "package of practical expedients," which permits us to maintain our prior conclusions about lease identification, classification and initial direct costs. We also elected the short-term lease exception, which allows us to exclude contracts with a lease term of 12 months or less, including any reasonably certain renewal options, from consideration under the new guidance. This update did not have a material effect on our consolidated financial statements.

Derivatives and Hedging (ASU 2018-16)

The amendments in this update allow entities to use the Overnight Index Swap rate based on the Secured Overnight Financing Rate as a U.S. benchmark interest rate for hedge accounting purposes, in addition to the previously acceptable rates. We adopted this update prospectively for qualifying new or redesignated hedging relationships entered into on or after January 1, 2019. This update did not have an effect on our consolidated financial statements.

Stock Compensation – Nonemployee Share-Based Payments (ASU 2018-07)

The amendments in this update simplify the accounting for share-based payments to nonemployees by aligning with the accounting for share-based payments to employees, with certain exceptions. We adopted this update on a modified retrospective basis effective January 1, 2019. This update did not have a material effect on our consolidated financial statements.

ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Recently Issued Accounting Pronouncements

Financial Instruments – Credit Losses (ASU 2019-04, ASU 2018-19 and ASU 2016-13)

This update is designed to reduce complexity by limiting the number of credit impairment models used for different assets. The model will result in accelerated credit loss recognition on assets held at amortized cost, which includes our commercial and residential mortgage investments. The identification of credit-deteriorated securities will include all assets that have experienced a more-than-insignificant deterioration in credit since origination. Additionally, any changes in the expected cash flows of credit-deteriorated securities will be recognized immediately in the income statement. Available-for-sale (AFS) securities are not in scope of the new credit loss model, but will undergo targeted improvements to the current reporting model including the establishment of a valuation allowance for credit losses versus the current direct write down approach. We will be required to adopt this update effective January 1, 2020. We are currently evaluating the impact of this guidance on our consolidated financial statements.

Collaborative Arrangements (ASU 2018-18)

The amendments in this update provide guidance on whether certain transactions between collaborative arrangement participants should be accounted for as revenue under Topic 606, providing comparability in the presentation of revenue for certain transactions. The update is effective January 1, 2020. Early adoption is permitted. We are currently evaluating the impact of this guidance on our consolidated financial statements.

Consolidation (ASU 2018-17)

The amendments in this update expand certain discussions in the VIE guidance, including considerations necessary for determining when a decision-making fee is a variable interest. We will be required to adopt this update retrospectively with a cumulative-effect adjustment to retained earnings at the beginning of the earliest period presented. The update is effective January 1, 2020. Early adoption is permitted. We are currently evaluating the impact of this guidance on our consolidated financial statements.

Cloud Computing Arrangements (ASU 2018-15)

The amendments in this update align the requirements for capitalizing implementation costs incurred in a cloud computing service arrangement with the requirements for capitalizing implementation costs incurred for internal-use software. We will be required to adopt this update on January 1, 2020, and we can elect to adopt this update either prospectively or retrospectively. Early adoption is permitted. We are currently evaluating the impact of this guidance on our consolidated financial statements.

Fair Value Measurement – Disclosure Requirements (ASU 2018-13)

The amendments in this update modify the disclosure requirements for fair value measurements by removing, modifying or adding certain disclosures. We will be required to adopt this update on January 1, 2020, and depending on the specific amendment will be required to adopt prospectively or retrospectively. We early adopted the removal and modification of certain disclosures as permitted. We are currently evaluating the impact of the remaining guidance on our consolidated financial statements.

Insurance – Targeted Improvements to the Accounting for Long-Duration Contracts (ASU 2018-12)

This update amends four key areas pertaining to the accounting and disclosures for long-duration insurance and investment contracts.

- The update requires cash flow assumptions used to measure the liability for future policy benefits to be updated at least annually and no longer allows a provision for adverse deviation. The remeasurement of the liability associated with the update of assumptions is required to be recognized in net income. Loss recognition testing is eliminated for traditional and limited-payment contracts. The update also requires the discount rate utilized in measuring the liability to be an upper-medium grade fixed-income instrument yield, which is to be updated at each reporting date. The change in liability due to changes in the discount rate is to be recognized in other comprehensive income.
- The update simplifies the amortization of deferred acquisition costs and other balances amortized in proportion to premiums, gross profits, or gross margins, requiring such balances to be amortized on a constant level basis over the expected term of the contracts. Deferred costs are required to be written off for unexpected contract terminations but are not subject to impairment testing.
- The update requires certain contract features meeting the definition of market risk benefits to be measured at fair value. Among the features included in this definition are the guaranteed lifetime withdrawal benefits (GLWB) and guaranteed minimum death benefit (GMDB) riders attached to the Company's annuity products. The change in fair value of the market risk benefits is to be recognized in net income, excluding the portion attributable to changes in instrument-specific credit risk which is recognized in other comprehensive income.
- The update also introduces disclosure requirements around the liability for future policy benefits, policyholder account balances, market risk benefits, separate account liabilities, and deferred acquisition costs. This includes disaggregated rollforwards of these balances and information about significant inputs, judgments, assumptions and methods used in their measurement.

We will be required to adopt this update effective January 1, 2021. Certain provisions of the update are required to be adopted on a fully retrospective basis, while others may be adopted on a modified retrospective basis. Early adoption is permitted. We are currently evaluating the impact of this guidance on our consolidated financial statements.

ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Intangibles – Simplifying the Test for Goodwill Impairment (ASU 2017-04)

The amendments in this update simplify the subsequent measurement of goodwill by eliminating the comparison of the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill to determine the goodwill impairment loss. With the adoption of this guidance, a goodwill impairment will be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of the goodwill allocated to that reporting unit. Entities will continue to have the option to perform a qualitative assessment to determine if a quantitative impairment test is necessary. We will be required to adopt this update prospectively effective January 1, 2020. Early adoption is permitted. We do not expect the adoption of this update will have a material effect on our consolidated financial statements.

2. Investments

AFS Securities—Our AFS investment portfolio includes bonds, collateralized loan obligations (CLO), asset-backed securities (ABS), commercial mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS) and redeemable preferred stock. Our AFS investment portfolio includes related party investments that are primarily a result of investments over which Apollo Global Management, LLC (AGM and, together with its subsidiaries, Apollo) can exercise significant influence. These investments are presented as investments in related parties on the condensed consolidated balance sheets, and are separately disclosed below.

The following table represents the amortized cost, gross unrealized gains and losses, fair value and other than temporary impairments (OTTI) in accumulated other comprehensive income (AOCI) of our AFS investments by asset type:

| <i>(In millions)</i> | March 31, 2019 | | | | |
|---|------------------|------------------------|-------------------------|------------------|--------------|
| | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value | OTTI in AOCI |
| AFS securities | | | | | |
| U.S. government and agencies | \$ 48 | \$ 2 | \$ — | \$ 50 | \$ — |
| U.S. state, municipal and political subdivisions | 1,209 | 161 | (5) | 1,365 | — |
| Foreign governments | 262 | 9 | — | 271 | — |
| Corporate | 40,727 | 1,218 | (534) | 41,411 | — |
| CLO | 6,320 | 6 | (184) | 6,142 | — |
| ABS | 5,023 | 85 | (33) | 5,075 | 1 |
| CMBS | 2,394 | 50 | (20) | 2,424 | 7 |
| RMBS | 7,457 | 480 | (20) | 7,917 | 12 |
| Total AFS securities | 63,440 | 2,011 | (796) | 64,655 | 20 |
| AFS securities – related party | | | | | |
| Corporate | 3 | — | — | 3 | — |
| CLO | 654 | — | (16) | 638 | — |
| ABS | 1,039 | 11 | (7) | 1,043 | — |
| Total AFS securities – related party | 1,696 | 11 | (23) | 1,684 | — |
| Total AFS securities including related party | \$ 65,136 | \$ 2,022 | \$ (819) | \$ 66,339 | \$ 20 |

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ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

| <i>(In millions)</i> | December 31, 2018 | | | | |
|---|-------------------|------------------------|-------------------------|------------------|--------------|
| | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value | OTTI in AOCI |
| AFS securities | | | | | |
| U.S. government and agencies | \$ 57 | \$ — | \$ — | \$ 57 | \$ — |
| U.S. state, municipal and political subdivisions | 1,183 | 117 | (7) | 1,293 | — |
| Foreign governments | 162 | 2 | (3) | 161 | — |
| Corporate | 38,018 | 394 | (1,315) | 37,097 | 1 |
| CLO | 5,658 | 2 | (299) | 5,361 | — |
| ABS | 4,915 | 53 | (48) | 4,920 | — |
| CMBS | 2,390 | 27 | (60) | 2,357 | 7 |
| RMBS | 7,642 | 413 | (36) | 8,019 | 11 |
| Total AFS securities | 60,025 | 1,008 | (1,768) | 59,265 | 19 |
| AFS securities – related party | | | | | |
| CLO | 587 | — | (25) | 562 | — |
| ABS | 875 | 4 | (4) | 875 | — |
| Total AFS securities – related party | 1,462 | 4 | (29) | 1,437 | — |
| Total AFS securities including related party | \$ 61,487 | \$ 1,012 | \$ (1,797) | \$ 60,702 | \$ 19 |

The amortized cost and fair value of AFS securities, including related party, are shown by contractual maturity below:

| <i>(In millions)</i> | March 31, 2019 | |
|---|------------------|------------------|
| | Amortized Cost | Fair Value |
| AFS securities | | |
| Due in one year or less | \$ 1,081 | \$ 1,082 |
| Due after one year through five years | 8,855 | 8,988 |
| Due after five years through ten years | 11,209 | 11,339 |
| Due after ten years | 21,101 | 21,688 |
| CLO, ABS, CMBS and RMBS | 21,194 | 21,558 |
| Total AFS securities | 63,440 | 64,655 |
| AFS securities – related party | | |
| Due after five years through ten years | 3 | 3 |
| CLO and ABS | 1,693 | 1,681 |
| Total AFS securities – related party | 1,696 | 1,684 |
| Total AFS securities including related party | \$ 65,136 | \$ 66,339 |

Actual maturities can differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Unrealized Losses on AFS Securities—The following summarizes the fair value and gross unrealized losses for AFS securities including related party, aggregated by class of security and length of time the fair value has remained below amortized cost:

| <i>(In millions)</i> | March 31, 2019 | | | | | |
|---|---------------------|-------------------------|-------------------|-------------------------|------------------|-------------------------|
| | Less than 12 months | | 12 months or more | | Total | |
| | Fair Value | Gross Unrealized Losses | Fair Value | Gross Unrealized Losses | Fair Value | Gross Unrealized Losses |
| AFS securities | | | | | | |
| U.S. government and agencies | \$ 2 | \$ — | \$ 7 | \$ — | \$ 9 | \$ — |
| U.S. state, municipal and political subdivisions | 19 | — | 75 | (5) | 94 | (5) |
| Foreign governments | 8 | — | 19 | — | 27 | — |
| Corporate | 4,840 | (141) | 8,191 | (393) | 13,031 | (534) |
| CLO | 4,782 | (179) | 161 | (5) | 4,943 | (184) |
| ABS | 719 | (10) | 562 | (23) | 1,281 | (33) |
| CMBS | 439 | (8) | 463 | (12) | 902 | (20) |
| RMBS | 942 | (16) | 138 | (4) | 1,080 | (20) |
| Total AFS securities | 11,751 | (354) | 9,616 | (442) | 21,367 | (796) |
| AFS securities – related party | | | | | | |
| Corporate | — | — | 3 | — | 3 | — |
| CLO | 553 | (16) | — | — | 553 | (16) |
| ABS | 324 | (6) | 72 | (1) | 396 | (7) |
| Total AFS securities – related party | 877 | (22) | 75 | (1) | 952 | (23) |
| Total AFS securities including related party | \$ 12,628 | \$ (376) | \$ 9,691 | \$ (443) | \$ 22,319 | \$ (819) |

| <i>(In millions)</i> | December 31, 2018 | | | | | |
|---|---------------------|-------------------------|-------------------|-------------------------|------------------|-------------------------|
| | Less than 12 months | | 12 months or more | | Total | |
| | Fair Value | Gross Unrealized Losses | Fair Value | Gross Unrealized Losses | Fair Value | Gross Unrealized Losses |
| AFS securities | | | | | | |
| U.S. government and agencies | \$ 32 | \$ — | \$ 2 | \$ — | \$ 34 | \$ — |
| U.S. state, municipal and political subdivisions | 139 | (2) | 82 | (5) | 221 | (7) |
| Foreign governments | 97 | (2) | 15 | (1) | 112 | (3) |
| Corporate | 20,213 | (942) | 4,118 | (373) | 24,331 | (1,315) |
| CLO | 5,054 | (297) | 90 | (2) | 5,144 | (299) |
| ABS | 1,336 | (23) | 506 | (25) | 1,842 | (48) |
| CMBS | 932 | (27) | 497 | (33) | 1,429 | (60) |
| RMBS | 1,417 | (31) | 140 | (5) | 1,557 | (36) |
| Total AFS securities | 29,220 | (1,324) | 5,450 | (444) | 34,670 | (1,768) |
| AFS securities – related party | | | | | | |
| CLO | 534 | (25) | — | — | 534 | (25) |
| ABS | 306 | (2) | 116 | (2) | 422 | (4) |
| Total AFS securities – related party | 840 | (27) | 116 | (2) | 956 | (29) |
| Total AFS securities including related party | \$ 30,060 | \$ (1,351) | \$ 5,566 | \$ (446) | \$ 35,626 | \$ (1,797) |

As of March 31, 2019, we held 2,638 AFS securities that were in an unrealized loss position. Of this total, 1,377 were in an unrealized loss position 12 months or more. As of March 31, 2018, we held 38 related party AFS securities that were in an unrealized loss position. Of this total, six were in an unrealized loss position 12 months or more. The unrealized losses on AFS securities can primarily be attributed to changes in market interest rates since acquisition. We did not recognize the unrealized losses in income as we intend to hold these securities and it is not more likely than not we will be required to sell a security before the recovery of its amortized cost.

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ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Other-Than-Temporary Impairments—For the three months ended March 31, 2019, we incurred \$1 million of net OTTI, none of which related to intent-to-sell impairments. The net OTTI of \$1 million related to credit impairments where a portion was bifurcated in AOCI. Any credit loss impairments not bifurcated in AOCI are excluded from the rollforward below.

The following table represents a rollforward of the cumulative amounts recognized on the condensed consolidated statements of income for OTTI related to pre-tax credit loss impairments on AFS securities, for which a portion of the securities' total OTTI was recognized in AOCI:

| <i>(In millions)</i> | Three months ended March 31, | |
|---|------------------------------|-------------|
| | 2019 | 2018 |
| Beginning balance | \$ 10 | \$ 14 |
| Initial impairments – credit loss OTTI recognized on securities not previously impaired | — | 1 |
| Additional impairments – credit loss OTTI recognized on securities previously impaired | 1 | — |
| Reduction in impairments from securities sold, matured or repaid | — | (8) |
| Ending balance | \$ 11 | \$ 7 |

Net Investment Income—Net investment income by asset class consists of the following:

| <i>(In millions)</i> | Three months ended March 31, | |
|------------------------------|------------------------------|---------------|
| | 2019 | 2018 |
| AFS securities | \$ 753 | \$ 668 |
| Trading securities | 42 | 44 |
| Equity securities | 3 | 2 |
| Mortgage loans | 151 | 91 |
| Investment funds | 10 | 65 |
| Funds withheld at interest | 163 | 46 |
| Other | 39 | 23 |
| Investment revenue | 1,161 | 939 |
| Investment expenses | (95) | (84) |
| Net investment income | \$ 1,066 | \$ 855 |

Investment Related Gains (Losses)—Investment related gains (losses) by asset class consists of the following:

| <i>(In millions)</i> | Three months ended March 31, | |
|--|------------------------------|-----------------|
| | 2019 | 2018 |
| AFS securities | | |
| Gross realized gains on investment activity | \$ 17 | \$ 21 |
| Gross realized losses on investment activity | (13) | (6) |
| Net realized investment gains on AFS securities | 4 | 15 |
| Net recognized investment gains (losses) on trading securities | 49 | (89) |
| Net recognized investment gains on equity securities | 18 | 1 |
| Derivative gains (losses) | 1,692 | (184) |
| Other gains | 9 | 21 |
| Investment related gains (losses) | \$ 1,772 | \$ (236) |

Proceeds from sales of AFS securities were \$1,253 million and \$1,547 million for the three months ended March 31, 2019 and 2018, respectively. Proceeds from sales of AFS securities for the three months ended March 31, 2018 have been revised for immaterial misstatements to be comparable to current year balances.

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ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

The following table summarizes the change in unrealized gains (losses) on trading and equity securities, including related party and consolidated VIEs, we still held as of the respective period end:

| <i>(In millions)</i> | Three months ended March 31, | |
|--|------------------------------|---------|
| | 2019 | 2018 |
| Trading securities | \$ 71 | \$ (69) |
| Trading securities – related party | (3) | (2) |
| VIE trading securities – related party | 1 | — |
| Equity securities | 18 | — |
| Equity securities – related party | 3 | — |
| VIE equity securities – related party | — | 25 |

Purchased Credit Impaired (PCI) Investments—The following table summarizes our PCI investments:

| <i>(In millions)</i> | Fixed maturity securities | | Mortgage loans | |
|--|---------------------------|-------------------|-----------------|-------------------|
| | March 31, 2019 | December 31, 2018 | March 31, 2019 | December 31, 2018 |
| Contractually required payments receivable | \$ 7,931 | \$ 8,179 | \$ 2,870 | \$ 2,675 |
| Less: Cash flows expected to be collected ¹ | (6,968) | (7,195) | (2,829) | (2,628) |
| Non-accretable difference | \$ 963 | \$ 984 | \$ 41 | \$ 47 |
| Cash flows expected to be collected ¹ | \$ 6,968 | \$ 7,195 | \$ 2,829 | \$ 2,628 |
| Less: Amortized cost | (5,392) | (5,518) | (2,117) | (1,931) |
| Accretable difference | \$ 1,576 | \$ 1,677 | \$ 712 | \$ 697 |
| Fair value | \$ 5,774 | \$ 5,828 | \$ 2,138 | \$ 1,933 |
| Outstanding balance | 6,619 | 6,773 | 2,395 | 2,210 |

¹ Represents the undiscounted principal and interest cash flows expected.

During the period, we acquired PCI investments with the following amounts at the time of purchase:

| <i>(In millions)</i> | March 31, 2019 | |
|--|---------------------------|----------------|
| | Fixed maturity securities | Mortgage loans |
| Contractually required payments receivable | \$ 66 | \$ 382 |
| Cash flows expected to be collected | 51 | 382 |
| Fair value | 44 | 292 |

The following table summarizes the activity for the accretable yield on PCI investments:

| <i>(In millions)</i> | Three months ended March 31, 2019 | |
|--|-----------------------------------|----------------|
| | Fixed maturity securities | Mortgage loans |
| Beginning balance at January 1 | \$ 1,677 | \$ 697 |
| Purchases of PCI investments, net of sales | 8 | 40 |
| Accretion | (91) | (32) |
| Net reclassification from (to) non-accretable difference | (18) | 7 |
| Ending balance at March 31 | \$ 1,576 | \$ 712 |

ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Mortgage Loans, including related party—Mortgage loans, net of allowances, consists of the following:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|---|------------------|-------------------|
| Commercial mortgage loans | \$ 7,693 | \$ 7,217 |
| Commercial mortgage loans under development | 86 | 80 |
| Total commercial mortgage loans | 7,779 | 7,297 |
| Residential mortgage loans | 3,554 | 3,334 |
| Mortgage loans, net of allowances | \$ 11,333 | \$ 10,631 |

We primarily invest in commercial mortgage loans on income producing properties including office and retail buildings, hotels, industrial properties and apartments. We diversify the commercial mortgage loan portfolio by geographic region and property type to reduce concentration risk. We evaluate mortgage loans based on relevant current information to confirm if properties are performing at a consistent and acceptable level to secure the related debt.

The distribution of commercial mortgage loans, including those under development, net of valuation allowances, by property type and geographic region, is as follows:

| <i>(In millions, except for percentages)</i> | March 31, 2019 | | December 31, 2018 | |
|--|--------------------|---------------------|--------------------|---------------------|
| | Net Carrying Value | Percentage of Total | Net Carrying Value | Percentage of Total |
| Property type | | | | |
| Office building | \$ 2,527 | 32.4% | \$ 2,221 | 30.5% |
| Retail | 1,797 | 23.1% | 1,660 | 22.7% |
| Hotels | 1,040 | 13.4% | 1,040 | 14.3% |
| Industrial | 1,232 | 15.8% | 1,196 | 16.4% |
| Apartment | 899 | 11.6% | 791 | 10.8% |
| Other commercial | 284 | 3.7% | 389 | 5.3% |
| Total commercial mortgage loans | \$ 7,779 | 100.0% | \$ 7,297 | 100.0% |
| U.S. Region | | | | |
| East North Central | \$ 846 | 10.9% | \$ 855 | 11.7% |
| East South Central | 200 | 2.6% | 295 | 4.0% |
| Middle Atlantic | 1,434 | 18.4% | 1,131 | 15.5% |
| Mountain | 603 | 7.8% | 616 | 8.4% |
| New England | 373 | 4.8% | 374 | 5.1% |
| Pacific | 1,791 | 23.0% | 1,540 | 21.1% |
| South Atlantic | 1,518 | 19.5% | 1,468 | 20.2% |
| West North Central | 158 | 2.0% | 173 | 2.4% |
| West South Central | 856 | 11.0% | 845 | 11.6% |
| Total U.S. Region | 7,779 | 100.0% | 7,297 | 100.0% |
| Total commercial mortgage loans | \$ 7,779 | 100.0% | \$ 7,297 | 100.0% |

Our residential mortgage loan portfolio includes first lien residential mortgage loans collateralized by properties located in the U.S. and is summarized in the following table:

| | March 31, 2019 | December 31, 2018 |
|---|----------------|-------------------|
| California | 33.7% | 30.3% |
| Florida | 15.7% | 16.3% |
| New York | 7.2% | 7.7% |
| Texas | 6.4% | 3.3% |
| Other ¹ | 37.0% | 42.4% |
| Total residential mortgage loan percentage | 100.0% | 100.0% |

¹Represents all other states, with each individual state comprising less than 5% of the portfolio.

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Notes to Condensed Consolidated Financial Statements (Unaudited)

Mortgage Loan Valuation Allowance—The assessment of mortgage loan impairments and valuation allowances is substantially the same for residential and commercial mortgage loans. The valuation allowance was \$2 million as of March 31, 2019 and December 31, 2018. We did not record any material activity in the valuation allowance during the three months ended March 31, 2019 or 2018.

Residential mortgage loans – The primary credit quality indicator of residential mortgage loans is loan performance. Nonperforming residential mortgage loans are 90 days or more past due and/or are in non-accrual status. As of March 31, 2019 and December 31, 2018, \$56 million and \$48 million, respectively, of our residential mortgage loans were nonperforming.

Commercial mortgage loans – As of March 31, 2019 and December 31, 2018, none of our commercial loans were 30 days or more past due.

Loan-to-value and debt service coverage ratios are measures we use to assess the risk and quality of commercial mortgage loans other than those under development. Loans under development are not evaluated using these ratios as the properties underlying these loans are generally not yet income-producing and the value of the underlying property significantly fluctuates based on the progress of construction. Therefore, the risk and quality of loans under development are evaluated based on the aging and geographical distribution of such loans as shown above.

The loan-to-value ratio is expressed as a percentage of the amount of the loan relative to the value of the underlying property. A loan-to-value ratio in excess of 100% indicates the unpaid loan amount exceeds the underlying collateral. The following represents the loan-to-value ratio of the commercial mortgage loan portfolio, excluding those under development, net of valuation allowances:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|----------------------------------|-----------------|-------------------|
| Less than 50% | \$ 2,060 | \$ 1,883 |
| 50% to 60% | 1,986 | 1,988 |
| 61% to 70% | 2,856 | 2,394 |
| 71% to 80% | 702 | 898 |
| 81% to 100% | 89 | 54 |
| Commercial mortgage loans | \$ 7,693 | \$ 7,217 |

The debt service coverage ratio, based upon the most recent financial statements, is expressed as a percentage of a property’s net operating income to its debt service payments. A debt service ratio of less than 1.0 indicates a property’s operations do not generate enough income to cover debt payments. The following represents the debt service coverage ratio of the commercial mortgage loan portfolio, excluding those under development, net of valuation allowances:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|----------------------------------|-----------------|-------------------|
| Greater than 1.20x | \$ 7,057 | \$ 6,576 |
| 1.00x – 1.20x | 360 | 474 |
| Less than 1.00x | 276 | 167 |
| Commercial mortgage loans | \$ 7,693 | \$ 7,217 |

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Notes to Condensed Consolidated Financial Statements (Unaudited)

Investment Funds—Our investment fund portfolio consists of funds that employ various strategies and include investments in real estate and other real assets, credit, equity, natural resources and hedge funds. Investment funds can meet the definition of VIEs. Our investment funds do not specify timing of distributions on the funds' underlying assets.

The following summarizes our investment funds, including related party and those owned by consolidated VIEs:

| | March 31, 2019 | | December 31, 2018 ¹ | |
|--|-----------------|------------------|--------------------------------|------------------|
| | Carrying value | Percent of total | Carrying value | Percent of total |
| <i>(In millions, except for percentages and years)</i> | | | | |
| Investment funds | | | | |
| Real estate | \$ 224 | 32.8% | \$ 215 | 30.6% |
| Credit funds | 155 | 22.7% | 172 | 24.5% |
| Private equity | 239 | 35.0% | 253 | 36.0% |
| Real assets | 64 | 9.4% | 56 | 7.9% |
| Natural resources | 1 | 0.1% | 4 | 0.6% |
| Other | — | —% | 3 | 0.4% |
| Total investment funds | 683 | 100.0% | 703 | 100.0% |
| Investment funds – related parties | | | | |
| Differentiated investments | | | | |
| AmeriHome Mortgage Company, LLC (AmeriHome) ² | 436 | 19.0% | 463 | 20.7% |
| Catalina Holdings Ltd. (Catalina) | 232 | 10.1% | 233 | 10.4% |
| Athora Holding Ltd. (Athora) ² | 124 | 5.4% | 105 | 4.7% |
| Venerable Holdings, Inc. (Venerable) ² | 87 | 3.8% | 92 | 4.1% |
| Other | 171 | 7.5% | 162 | 7.3% |
| Total differentiated investments | 1,050 | 45.8% | 1,055 | 47.2% |
| Real estate | 498 | 21.8% | 506 | 22.7% |
| Credit funds | 340 | 14.8% | 341 | 15.3% |
| Private equity | 52 | 2.3% | 18 | 0.8% |
| Real assets | 144 | 6.3% | 145 | 6.5% |
| Natural resources | 123 | 5.4% | 104 | 4.7% |
| Public equities | 83 | 3.6% | 63 | 2.8% |
| Total investment funds – related parties | 2,290 | 100.0% | 2,232 | 100.0% |
| Investment funds owned by consolidated VIEs | | | | |
| MidCap FinCo Limited (MidCap) ² | 550 | 88.8% | 552 | 88.4% |
| Credit funds | 1 | 0.2% | 1 | 0.2% |
| Real estate | 29 | 4.7% | 30 | 4.8% |
| Real assets | 39 | 6.3% | 41 | 6.6% |
| Total investment funds owned by consolidated VIEs | 619 | 100.0% | 624 | 100.0% |
| Total investment funds including related parties and funds owned by consolidated VIEs | \$ 3,592 | | \$ 3,559 | |

¹ Certain reclassifications have been made to conform with current year presentation.

² See further discussions on AmeriHome, Athora, Venerable and MidCap in Note 8 – Related Parties.

The following table presents the carrying value by ownership percentage of equity method investment funds, including related party investment funds and investment funds owned by consolidated VIEs:

| | March 31, 2019 | December 31, 2018 |
|---------------------------------------|-----------------|-------------------|
| <i>(In millions)</i> | | |
| Ownership Percentage | | |
| 100% | \$ 15 | \$ 17 |
| 50% – 99% | 1,017 | 1,044 |
| 3% – 49% | 1,684 | 1,617 |
| Equity method investment funds | \$ 2,716 | \$ 2,678 |

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The following table presents the carrying value by ownership percentage of investment funds where we elected the fair value option, including related party investment funds and investment funds owned by consolidated VIEs:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|---|----------------|-------------------|
| Ownership Percentage | | |
| 3% – 49% | \$ 699 | \$ 687 |
| Less than 3% | 177 | 194 |
| Fair value option investment funds | \$ 876 | \$ 881 |

Non-Consolidated Securities and Investment Funds

Fixed maturity securities – We invest in securitization entities as a debt holder or an investor in the residual interest of the securitization vehicle. These entities are deemed VIEs due to insufficient equity within the structure and lack of control by the equity investors over the activities that significantly impact the economics of the entity. In general, we are a debt investor within these entities and, as such, hold a variable interest; however, due to the debt holders’ lack of ability to control the decisions within the trust that significantly impact the entity, and the fact the debt holders are protected from losses due to the subordination of the equity tranche, the debt holders are not deemed the primary beneficiary. Securitization vehicles in which we hold the residual tranche are not consolidated because we do not unilaterally have substantive rights to remove the general partner, or when assessing related party interests, we are not under common control, as defined by GAAP, with the related party, nor are substantially all of the activities conducted on our behalf; therefore, we are not deemed the primary beneficiary. Debt investments and investments in the residual tranche of securitization entities are considered debt instruments and are held at fair value on the balance sheet and classified as AFS or trading.

Investment funds – Investment funds include non-fixed income, alternative investments in the form of limited partnerships or similar legal structures.

Equity securities – We invest in preferred equity securities issued by entities deemed to be VIEs due to insufficient equity within the structure.

Our risk of loss associated with our non-consolidated investments depends on the investment. Investment funds, equity securities and trading securities are limited to the carrying value plus unfunded commitments. AFS securities are limited to amortized cost plus unfunded commitments.

The following summarizes the carrying value and maximum loss exposure of these non-consolidated investments:

| <i>(In millions)</i> | March 31, 2019 | | December 31, 2018 | |
|---|------------------|-----------------------|-------------------|-----------------------|
| | Carrying Value | Maximum Loss Exposure | Carrying Value | Maximum Loss Exposure |
| Investment funds | \$ 683 | \$ 1,271 | \$ 703 | \$ 1,329 |
| Investment in related parties – investment funds | 2,290 | 4,301 | 2,232 | 4,331 |
| Assets of consolidated VIEs – investment funds | 619 | 722 | 624 | 727 |
| Investment in fixed maturity securities | 22,107 | 21,748 | 21,188 | 21,139 |
| Investment in related parties – fixed maturity securities | 1,920 | 2,010 | 1,686 | 1,788 |
| Investment in related parties – equity securities | 301 | 301 | 120 | 120 |
| Total non-consolidated investments | \$ 27,920 | \$ 30,353 | \$ 26,553 | \$ 29,434 |

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Notes to Condensed Consolidated Financial Statements (Unaudited)

3. Derivative Instruments

We use a variety of derivative instruments to manage risks, primarily equity, interest rate, credit, foreign currency and market volatility. See *Note 4 – Fair Value* for information about the fair value hierarchy for derivatives.

The following table presents the notional amount and fair value of derivative instruments:

| (In millions) | March 31, 2019 | | | December 31, 2018 | | |
|---|-----------------|-----------------|-----------------|-------------------|---------------|-----------------|
| | Notional Amount | Fair Value | | Notional Amount | Fair Value | |
| | | Assets | Liabilities | | Assets | Liabilities |
| Derivatives designated as hedges | | | | | | |
| Foreign currency swaps | 2,275 | \$ 68 | \$ 49 | 2,041 | \$ 83 | \$ 55 |
| Foreign currency forwards | 154 | 2 | — | 85 | — | 1 |
| Total derivatives designated as hedges | | 70 | 49 | | 83 | 56 |
| Derivatives not designated as hedges | | | | | | |
| Equity options | 49,566 | 1,824 | 22 | 49,821 | 942 | 11 |
| Futures | 6 | 8 | 1 | 4 | 9 | 3 |
| Total return swaps | 60 | 4 | — | 62 | — | 3 |
| Foreign currency swaps | 38 | 3 | 1 | 38 | 3 | 2 |
| Interest rate swaps | 310 | — | 1 | 326 | — | 1 |
| Credit default swaps | 10 | — | 4 | 10 | — | 4 |
| Foreign currency forwards | 795 | 11 | 7 | 646 | 6 | 5 |
| Embedded derivatives | | | | | | |
| Funds withheld including related party | — | 660 | 12 | — | (53) | (1) |
| Interest sensitive contract liabilities | — | — | 9,106 | — | — | 7,969 |
| Total derivatives not designated as hedges | | 2,510 | 9,154 | | 907 | 7,997 |
| Total derivatives | | <u>\$ 2,580</u> | <u>\$ 9,203</u> | | <u>\$ 990</u> | <u>\$ 8,053</u> |

Derivatives Designated as Hedges

Foreign currency swaps – We use foreign currency swaps to convert foreign currency denominated cash flows of an investment to U.S. dollars to reduce cash flow fluctuations due to changes in currency exchange rates. Certain of these swaps are designated and accounted for as cash flow hedges, which will expire by July 2049. During the three months ended March 31, 2019 and 2018, we had foreign currency swap losses of \$8 million and \$56 million, respectively, recorded in AOCI. There were no amounts reclassified to income and no amounts deemed ineffective for the three months ended March 31, 2019 and 2018. As of March 31, 2019, no amounts are expected to be reclassified to income within the next 12 months.

Foreign currency forwards – We use foreign currency forward contracts to hedge certain exposures to foreign currency risk. The price is agreed upon at the time of the contract and payment is made at a specified future date. Certain of these forwards entered into during the fourth quarter of 2018 are designated and accounted for as fair value hedges. As of March 31, 2019 and December 31, 2018, the carrying amount of the hedged AFS securities – CLOs was \$154 million and \$88 million, respectively, and the cumulative amount of fair value hedging adjustments included in the hedged AFS securities – CLOs included gains of \$2 million and \$1 million, respectively. The gains and losses on derivatives and the related hedged items in fair value hedge relationships are recorded in investment related gains (losses) on the condensed consolidated statements of income. The derivatives had gains of \$3 million during the three months ended March 31, 2019, and the related hedged items had losses of \$3 million during the three months ended March 31, 2019.

Derivatives Not Designated as Hedges

Equity options – We use equity indexed options to economically hedge fixed indexed annuity products that guarantee the return of principal to the policyholder and credit interest based on a percentage of the gain in a specified market index, primarily the S&P 500. To hedge against adverse changes in equity indices, we enter into contracts to buy equity indexed options. The contracts are net settled in cash based on differentials in the indices at the time of exercise and the strike price.

Futures – Futures contracts are purchased to hedge the growth in interest credited to the customer as a direct result of increases in the related indices. We enter into exchange-traded futures with regulated futures commission clearing brokers who are members of a trading exchange. Under exchange-traded futures contracts, we agree to purchase a specified number of contracts with other parties and to post variation margin on a daily basis in an amount equal to the difference in the daily fair values of those contracts.

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Total return swaps – We purchase total rate of return swaps to gain exposure and benefit from a reference asset or index without ownership. Total rate of return swaps are contracts in which one party makes payments based on a set rate, either fixed or variable, while the other party makes payments based on the return of the underlying asset or index, which includes both the income it generates and any capital gains.

Interest rate swaps – We use interest rate swaps to reduce market risks from interest rate changes and to alter interest rate exposure arising from duration mismatches between assets and liabilities. With an interest rate swap, we agree with another party to exchange the difference between fixed-rate and floating-rate interest amounts tied to an agreed-upon notional principal amount at specified intervals. Certain of these swaps entered into during the fourth quarter of 2016 were designated as fair value hedges. These fair value hedges were dedesignated during the second quarter of 2018 and there was no material impact as a result.

Credit default swaps – Credit default swaps provide a measure of protection against the default of an issuer or allow us to gain credit exposure to an issuer or traded index. We use credit default swaps coupled with a bond to synthetically create the characteristics of a reference bond. These transactions have a lower cost and are generally more liquid relative to the cash market. We receive a periodic premium for these transactions as compensation for accepting credit risk.

Hedging credit risk involves buying protection for existing credit risk. The exposure resulting from the agreements, which is usually the notional amount, is equal to the maximum proceeds that must be paid by a counterparty for a defaulted security. If a credit event occurs on a reference entity, then a counterparty who sold protection is required to pay the buyer the trade notional amount less any recovery value of the security.

Embedded derivatives – We have embedded derivatives which are required to be separated from their host contracts and reported as derivatives. Host contracts include reinsurance agreements structured on a modified coinsurance (modco) or funds withheld basis and indexed annuity products.

The following is a summary of the gains (losses) related to derivatives not designated as hedges:

| <i>(In millions)</i> | Three months ended March 31, | |
|---|------------------------------|--------------|
| | 2019 | 2018 |
| Equity options | \$ 849 | \$ (142) |
| Futures | (11) | (5) |
| Swaps | 18 | 2 |
| Foreign currency forwards | 6 | (7) |
| Embedded derivatives on funds withheld | 830 | (32) |
| Amounts recognized in investment related gains (losses) | 1,692 | (184) |
| Embedded derivatives in indexed annuity products ¹ | (1,017) | 247 |
| Total gains (losses) on derivatives not designated as hedges | \$ 675 | \$ 63 |

¹ Included in interest sensitive contract benefits.

Credit Risk—We may be exposed to credit-related losses in the event of counterparty nonperformance on derivative financial instruments. Generally, the current credit exposure of our derivative contracts is the fair value at the reporting date less any collateral received from the counterparty.

We manage credit risk related to over-the-counter derivatives by entering into transactions with creditworthy counterparties. Where possible, we maintain collateral arrangements and use master netting agreements that provide for a single net payment from one counterparty to another at each due date and upon termination. We have also established counterparty exposure limits, where possible, in order to evaluate if there is sufficient collateral to support the net exposure.

Collateral arrangements typically require the posting of collateral in connection with its derivative instruments. Collateral agreements often contain posting thresholds, some of which may vary depending on the posting party's financial strength ratings. Additionally, a decrease in our financial strength rating to a specified level can result in settlement of the derivative position.

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The estimated fair value of our net derivative and other financial assets and liabilities after the application of master netting agreements and collateral were as follows:

| (In millions) | Gross amounts not offset on the condensed consolidated balance sheets | | | | Net amount | Off-balance sheet securities collateral ³ | Net amount after securities collateral |
|--------------------------|---|------------------------------------|-----------------------------|-------|------------|--|--|
| | Gross amount recognized ¹ | Financial instruments ² | Collateral received/pledged | | | | |
| March 31, 2019 | | | | | | | |
| Derivative assets | \$ 1,920 | \$ (65) | \$ (1,781) | \$ 74 | \$ (3) | \$ 71 | |
| Derivative liabilities | (85) | 65 | 14 | (6) | — | (6) | |
| December 31, 2018 | | | | | | | |
| Derivative assets | \$ 1,043 | \$ (52) | \$ (969) | \$ 22 | \$ (4) | \$ 18 | |
| Derivative liabilities | (85) | 52 | 24 | (9) | — | (9) | |

¹ The gross amounts of recognized derivative assets and derivative liabilities are reported on the condensed consolidated balance sheets. As of March 31, 2019 and December 31, 2018, amounts not subject to master netting or similar agreements were immaterial.

² Represents amounts offsetting derivative assets and derivative liabilities that are subject to an enforceable master netting agreement or similar agreement that are not netted against the gross derivative assets or gross derivative liabilities for presentation on the condensed consolidated balance sheets.

³ For non-cash collateral received, we do not recognize the collateral on our balance sheet unless the obligor (transferor) has defaulted under the terms of the secured contract and is no longer entitled to redeem the pledged asset. Amounts do not include any excess of collateral pledged or received.

4. Fair Value

Fair value is the price we would receive to sell an asset or pay to transfer a liability (exit price) in an orderly transaction between market participants. We determine fair value based on the following fair value hierarchy:

Level 1 – Unadjusted quoted prices for identical assets or liabilities in an active market.

Level 2 – Quoted prices for inactive markets or valuation techniques that require observable direct or indirect inputs for substantially the full term of the asset or liability. Level 2 inputs include the following:

- Quoted prices for similar assets or liabilities in active markets,
- Observable inputs other than quoted market prices, and
- Observable inputs derived principally from market data through correlation or other means.

Level 3 – Prices or valuation techniques with unobservable inputs significant to the overall fair value estimate. These valuations use critical assumptions not readily available to market participants. Level 3 valuations are based on market standard valuation methodologies, including discounted cash flows, matrix pricing or other similar techniques.

NAV – Investment funds are typically measured using NAV as a practical expedient in determining fair value and are not classified in the fair value hierarchy. The underlying investments of the investment funds may have significant unobservable inputs, which may include but are not limited to, comparable multiples and weighted average cost of capital rates applied in valuation models or a discounted cash flow model.

The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure fair value fall within different levels of the hierarchy, the category level is based on the lowest priority level input that is significant to the instrument’s fair value measurement.

We use a number of valuation sources to determine fair values. Valuation sources can include quoted market prices; third-party commercial pricing services; third-party brokers; industry-standard, vendor modeling software that uses market observable inputs; and other internal modeling techniques based on projected cash flows. We periodically review the assumptions and inputs of third-party commercial pricing services through internal valuation price variance reviews, comparisons to internal pricing models, back testing to recent trades, or monitoring trading volumes.

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The following represents the hierarchy for our assets and liabilities measured at fair value on a recurring basis:

| (In millions) | March 31, 2019 | | | | |
|--|------------------|---------------|-----------------|------------------|-----------------|
| | Total | NAV | Level 1 | Level 2 | Level 3 |
| Assets | | | | | |
| AFS securities | | | | | |
| U.S. government and agencies | \$ 50 | \$ — | \$ 49 | \$ 1 | \$ — |
| U.S. state, municipal and political subdivisions | 1,365 | — | — | 1,365 | — |
| Foreign governments | 271 | — | — | 271 | — |
| Corporate | 41,411 | — | — | 40,376 | 1,035 |
| CLO | 6,142 | — | — | 6,032 | 110 |
| ABS | 5,075 | — | — | 3,461 | 1,614 |
| CMBS | 2,424 | — | — | 2,250 | 174 |
| RMBS | 7,917 | — | — | 7,860 | 57 |
| Total AFS securities | 64,655 | — | 49 | 61,616 | 2,990 |
| Trading securities | | | | | |
| U.S. government and agencies | 5 | — | 3 | 2 | — |
| U.S. state, municipal and political subdivisions | 130 | — | — | 130 | — |
| Foreign governments | 17 | — | — | 17 | — |
| Corporate | 1,555 | — | — | 1,545 | 10 |
| CLO | 20 | — | — | 12 | 8 |
| ABS | 100 | — | — | 94 | 6 |
| CMBS | 50 | — | — | 50 | — |
| RMBS | 379 | — | — | 293 | 86 |
| Total trading securities | 2,256 | — | 3 | 2,143 | 110 |
| Equity securities | 252 | — | 47 | 202 | 3 |
| Mortgage loans | 32 | — | — | — | 32 |
| Investment funds | 159 | 134 | — | — | 25 |
| Funds withheld at interest – embedded derivative | 446 | — | — | — | 446 |
| Derivative assets | 1,920 | — | 8 | 1,912 | — |
| Short-term investments | 155 | — | 50 | 105 | — |
| Other investments | 52 | — | — | 52 | — |
| Cash and cash equivalents | 3,021 | — | 3,021 | — | — |
| Restricted cash | 497 | — | 497 | — | — |
| Investments in related parties | | | | | |
| AFS securities | | | | | |
| Corporate | 3 | — | — | 3 | — |
| CLO | 638 | — | — | 638 | — |
| ABS | 1,043 | — | — | 546 | 497 |
| Total AFS securities – related party | 1,684 | — | — | 1,187 | 497 |
| Trading securities | | | | | |
| CLO | 101 | — | — | 46 | 55 |
| ABS | 138 | — | — | — | 138 |
| Total trading securities – related party | 239 | — | — | 46 | 193 |
| Equity securities | 301 | — | — | — | 301 |
| Investment funds | 232 | 108 | — | — | 124 |
| Funds withheld at interest – embedded derivative | 214 | — | — | — | 214 |
| Reinsurance recoverable | 1,737 | — | — | — | 1,737 |
| Assets of consolidated VIEs | | | | | |
| Trading securities | 34 | — | — | — | 34 |
| Equity securities | 6 | — | — | — | 6 |
| Investment funds | 564 | 550 | — | — | 14 |
| Cash and cash equivalents | 2 | — | 2 | — | — |
| Total assets measured at fair value | \$ 78,458 | \$ 792 | \$ 3,677 | \$ 67,263 | \$ 6,726 |

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| (In millions) | March 31, 2019 | | | | |
|--|------------------|-------------|-------------|--------------|------------------|
| | Total | NAV | Level 1 | Level 2 | Level 3 |
| Liabilities | | | | | |
| Interest sensitive contract liabilities | | | | | |
| Embedded derivative | \$ 9,106 | \$ — | \$ — | \$ — | \$ 9,106 |
| Universal life benefits | 979 | — | — | — | 979 |
| Future policy benefits | | | | | |
| AmerUs Life Insurance Company (AmerUs) Closed Block | 1,483 | — | — | — | 1,483 |
| Indianapolis Life Insurance Company (ILICO) Closed Block and life benefits | 743 | — | — | — | 743 |
| Derivative liabilities | 85 | — | 1 | 80 | 4 |
| Funds withheld liability – embedded derivative | 12 | — | — | 12 | — |
| Total liabilities measured at fair value | \$ 12,408 | \$ — | \$ 1 | \$ 92 | \$ 12,315 |

(Concluded)

| (In millions) | December 31, 2018 | | | | |
|--|-------------------|------|---------|---------|---------|
| | Total | NAV | Level 1 | Level 2 | Level 3 |
| Assets | | | | | |
| AFS securities | | | | | |
| U.S. government and agencies | \$ 57 | \$ — | \$ 54 | \$ 3 | \$ — |
| U.S. state, municipal and political subdivisions | 1,293 | — | — | 1,293 | — |
| Foreign governments | 161 | — | — | 161 | — |
| Corporate | 37,097 | — | — | 36,199 | 898 |
| CLO | 5,361 | — | — | 5,254 | 107 |
| ABS | 4,920 | — | — | 3,305 | 1,615 |
| CMBS | 2,357 | — | — | 2,170 | 187 |
| RMBS | 8,019 | — | — | 7,963 | 56 |
| Total AFS securities | 59,265 | — | 54 | 56,348 | 2,863 |
| Trading securities | | | | | |
| U.S. government and agencies | 5 | — | 3 | 2 | — |
| U.S. state, municipal and political subdivisions | 126 | — | — | 126 | — |
| Corporate | 1,287 | — | — | 1,287 | — |
| CLO | 9 | — | — | 8 | 1 |
| ABS | 87 | — | — | 87 | — |
| CMBS | 49 | — | — | 49 | — |
| RMBS | 386 | — | — | 252 | 134 |
| Total trading securities | 1,949 | — | 3 | 1,811 | 135 |
| Equity securities | 216 | — | 40 | 173 | 3 |
| Mortgage loans | 32 | — | — | — | 32 |
| Investment funds | 182 | 153 | — | — | 29 |
| Funds withheld at interest – embedded derivative | 57 | — | — | — | 57 |
| Derivative assets | 1,043 | — | 9 | 1,034 | — |
| Short-term investments | 191 | — | 66 | 125 | — |
| Other investments | 52 | — | — | 52 | — |
| Cash and cash equivalents | 2,911 | — | 2,911 | — | — |
| Restricted cash | 492 | — | 492 | — | — |

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Notes to Condensed Consolidated Financial Statements (Unaudited)

| (In millions) | December 31, 2018 | | | | |
|--|-------------------|---------------|-----------------|------------------|------------------|
| | Total | NAV | Level 1 | Level 2 | Level 3 |
| Investments in related parties | | | | | |
| AFS securities | | | | | |
| CLO | 562 | — | — | 562 | — |
| ABS | 875 | — | — | 547 | 328 |
| Total AFS securities – related party | 1,437 | — | — | 1,109 | 328 |
| Trading securities | | | | | |
| CLO | 100 | — | — | 22 | 78 |
| ABS | 149 | — | — | — | 149 |
| Total trading securities – related party | 249 | — | — | 22 | 227 |
| Equity securities | 120 | — | — | — | 120 |
| Investment funds | 201 | 96 | — | — | 105 |
| Funds withheld at interest - embedded derivative | (110) | — | — | — | (110) |
| Reinsurance recoverable | 1,676 | — | — | — | 1,676 |
| Assets of consolidated VIEs | | | | | |
| Trading securities | 35 | — | — | — | 35 |
| Equity securities | 50 | — | 37 | — | 13 |
| Investment funds | 567 | 552 | — | — | 15 |
| Cash and cash equivalents | 2 | — | 2 | — | — |
| Total assets measured at fair value | \$ 70,617 | \$ 801 | \$ 3,614 | \$ 60,674 | \$ 5,528 |
| Liabilities | | | | | |
| Interest sensitive contract liabilities | | | | | |
| Embedded derivative | \$ 7,969 | \$ — | \$ — | \$ — | \$ 7,969 |
| Universal life benefits | 932 | — | — | — | 932 |
| Future policy benefits | | | | | |
| AmerUs Closed Block | 1,443 | — | — | — | 1,443 |
| ILICO Closed Block and life benefits | 730 | — | — | — | 730 |
| Derivative liabilities | 85 | — | 3 | 78 | 4 |
| Funds withheld liability – embedded derivative | (1) | — | — | (1) | — |
| Total liabilities measured at fair value | \$ 11,158 | \$ — | \$ 3 | \$ 77 | \$ 11,078 |

(Concluded)

Fair Value Valuation Methods—We used the following valuation methods and assumptions to estimate fair value:

AFS and trading securities – We obtain the fair value for most marketable securities without an active market from several commercial pricing services. These are classified as Level 2 assets. The pricing services incorporate a variety of market observable information in their valuation techniques, including benchmark yields, trading activity, credit quality, issuer spreads, bids, offers and other reference data. This category typically includes U.S. and non-U.S. corporate bonds, U.S. agency and government guaranteed securities, CLO, ABS, CMBS and RMBS.

We also have fixed maturity securities priced based on indicative broker quotes or by employing market accepted valuation models. For certain fixed maturity securities, the valuation model uses significant unobservable inputs and are included in Level 3 in our fair value hierarchy. Significant unobservable inputs used include: issue specific credit adjustments, material non-public financial information, estimation of future earnings and cash flows, default rate assumptions, liquidity assumptions and indicative quotes from market makers. These inputs are usually considered unobservable, as not all market participants have access to this data.

We value privately placed fixed maturity securities based on the credit quality and duration of comparable marketable securities, which may be securities of another issuer with similar characteristics. In some instances, we use a matrix-based pricing model. These models consider the current level of risk-free interest rates, corporate spreads, credit quality of the issuer and cash flow characteristics of the security. We also consider additional factors such as net worth of the borrower, value of collateral, capital structure of the borrower, presence of guarantees and our evaluation of the borrower’s ability to compete in its relevant market. Privately placed fixed maturity securities are classified as Level 2 or 3.

Equity securities – Fair values of publicly traded equity securities are based on quoted market prices and classified as Level 1. Other equity securities, typically private equities or equity securities not traded on an exchange, we value based on other sources, such as commercial pricing services or brokers and are classified as Level 2 or 3.

Mortgage loans – Mortgage loans for which we have elected the fair value option or those held for sale are carried at fair value. We estimate fair value on a monthly basis using discounted cash flow analysis and rates being offered for similar loans to borrowers with similar credit ratings. Loans with similar characteristics are aggregated for purposes of the calculations. The discounted cash flow model uses unobservable inputs, including estimates of discount rates and loan prepayments. Mortgage loans are classified as Level 3.

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Notes to Condensed Consolidated Financial Statements (Unaudited)

Investment funds – Certain investment funds for which we elected the fair value option are included in Level 3 and are priced based on market accepted valuation models. The valuation models use significant unobservable inputs, which include material non-public financial information, estimation of future distributable earnings and demographic assumptions. These inputs are usually considered unobservable, as not all market participants have access to this data.

Funds withheld (embedded derivative) – We estimate the fair value of the embedded derivative based on the change in the fair value of the assets supporting the funds withheld payable under the combined coinsurance, modco and coinsurance funds withheld reinsurance agreements. As a result, the fair value of the embedded derivative is classified as Level 2 or 3 based on the valuation methods used for the assets held supporting the reinsurance agreements.

Derivatives – Derivative contracts can be exchange traded or over-the-counter. Exchange-traded derivatives typically fall within Level 1 of the fair value hierarchy depending on trading activity. Over-the-counter derivatives are valued using valuation models or an income approach using third-party broker valuations. Valuation models require a variety of inputs, including contractual terms, market prices, yield curves, credit curves, measures of volatility, prepayment rates and correlation of the inputs. We consider and incorporate counterparty credit risk in the valuation process through counterparty credit rating requirements and monitoring of overall exposure. We also evaluate and include our own nonperformance risk in valuing derivatives. The majority of our derivatives trade in liquid markets; therefore, we can verify model inputs and model selection does not involve significant management judgment. These are typically classified within Level 2 of the fair value hierarchy.

Cash and cash equivalents including restricted cash – The carrying amount for cash equals fair value. We estimate the fair value for cash equivalents based on quoted market prices. These assets are classified as Level 1.

Interest sensitive contract liabilities (embedded derivative) – Embedded derivatives related to interest sensitive contract liabilities with fixed indexed annuity products are classified as Level 3. The valuations include significant unobservable inputs associated with economic assumptions and actuarial assumptions for policyholder behavior.

AmerUs Closed Block – We elected the fair value option for the future policy benefits liability in the AmerUs Closed Block. Our valuation technique is to set the fair value of policyholder liabilities equal to the fair value of assets. There is an additional component which captures the fair value of the open block's obligations to the closed block business. This component is the present value of the projected release of required capital and future earnings before income taxes on required capital supporting the AmerUs Closed Block, discounted at a rate which represents a market participant's required rate of return, less the initial required capital. Unobservable inputs include estimates for these items. The AmerUs Closed Block policyholder liabilities and any corresponding reinsurance recoverable are classified as Level 3.

ILICO Closed Block – We elected the fair value option for the ILICO Closed Block. Our valuation technique is to set the fair value of policyholder liabilities equal to the fair value of assets. There is an additional component which captures the fair value of the open block's obligations to the closed block business. This component uses the present value of future cash flows which include commissions, administrative expenses, reinsurance premiums and benefits, and an explicit cost of capital. The discount rate includes a margin to reflect the business and nonperformance risk. Unobservable inputs include estimates for these items. The ILICO Closed Block policyholder liabilities and corresponding reinsurance recoverable are classified as Level 3.

Universal life liabilities and other life benefits – We elected the fair value option for certain blocks of universal and other life business ceded to Global Atlantic. We use a present value of liability cash flows. Unobservable inputs include estimates of mortality, persistency, expenses, premium payments and a risk margin used in the discount rates that reflects the riskiness of the business. These universal life policyholder liabilities and corresponding reinsurance recoverable are classified as Level 3.

ATHENE HOLDING LTD.**Notes to Condensed Consolidated Financial Statements (Unaudited)**

Fair Value Option—The following represents the gains (losses) recorded for instruments for which we have elected the fair value option, including related parties and consolidated VIEs:

| <i>(In millions)</i> | Three months ended March 31, | |
|-----------------------------|------------------------------|---------------|
| | 2019 | 2018 |
| Trading securities | \$ 50 | \$ (89) |
| Investment funds | (4) | 2 |
| Future policy benefits | (40) | 84 |
| Total gains (losses) | \$ 6 | \$ (3) |

Gains and losses on trading securities are recorded in investment related gains (losses) on the condensed consolidated statements of income. For fair value option mortgage loans, we record interest income in net investment income and subsequent changes in fair value in investment related gains (losses) on the condensed consolidated statements of income. Gains and losses related to investment funds, including related party investment funds, are recorded in net investment income on the condensed consolidated statements of income. We record the change in fair value of future policy benefits to future policy and other policy benefits on the condensed consolidated statements of income.

The following summarizes information for fair value option mortgage loans:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|--------------------------|----------------|-------------------|
| Unpaid principal balance | \$ 30 | \$ 30 |
| Mark to fair value | 2 | 2 |
| Fair value | \$ 32 | \$ 32 |

There were no fair value option mortgage loans 90 days or more past due as of March 31, 2019 and December 31, 2018.

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ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Level 3 Financial Instruments—The following is a reconciliation for all Level 3 assets and liabilities measured at fair value on a recurring basis:

| (In millions) | Three months ended March 31, 2019 | | | | | | | |
|--|-----------------------------------|--|-----------------|---|--------------|-----------------|--------------------|--|
| | Beginning Balance | Total realized and unrealized gains (losses) | | Net purchases, issuances, sales and settlements | Transfers | | Ending Balance | Total gains (losses) included in earnings ¹ |
| | | Included in income | Included in OCI | | In | (Out) | | |
| Assets | | | | | | | | |
| AFS securities | | | | | | | | |
| Corporate | \$ 898 | \$ (2) | \$ 5 | \$ 165 | \$ — | \$ (31) | \$ 1,035 | \$ — |
| CLO | 107 | — | 2 | 30 | — | (29) | 110 | — |
| ABS | 1,615 | 3 | 16 | 57 | 19 | (96) | 1,614 | — |
| CMBS | 187 | — | 2 | (6) | 8 | (17) | 174 | — |
| RMBS | 56 | — | 1 | — | — | — | 57 | — |
| Trading securities | | | | | | | | |
| Corporate | — | — | — | — | 10 | — | 10 | — |
| CLO | 1 | — | — | — | 7 | — | 8 | 1 |
| ABS | — | — | — | 6 | — | — | 6 | — |
| RMBS | 134 | (3) | — | — | 38 | (83) | 86 | 2 |
| Equity securities | 3 | — | — | — | — | — | 3 | — |
| Mortgage loans | 32 | — | — | — | — | — | 32 | — |
| Investment funds | 29 | (3) | — | (1) | — | — | 25 | (3) |
| Funds withheld at interest – embedded derivative | 57 | 389 | — | — | — | — | 446 | — |
| Investments in related parties | | | | | | | | |
| AFS securities, ABS | 328 | — | — | 169 | — | — | 497 | — |
| Trading securities | | | | | | | | |
| CLO | 78 | (1) | — | — | — | (22) | 55 | 4 |
| ABS | 149 | (11) | — | — | — | — | 138 | (11) |
| Equity securities | 120 | 4 | — | 177 | — | — | 301 | 4 |
| Investment funds | 105 | — | — | 19 | — | — | 124 | — |
| Funds withheld at interest – embedded derivative | (110) | 324 | — | — | — | — | 214 | — |
| Reinsurance recoverable | 1,676 | 61 | — | — | — | — | 1,737 | — |
| Investments of consolidated VIEs | | | | | | | | |
| Trading securities | 35 | — | — | (1) | — | — | 34 | — |
| Equity securities | 13 | (3) | — | (4) | — | — | 6 | — |
| Investment funds | 15 | (1) | — | — | — | — | 14 | — |
| Total Level 3 assets | \$ 5,528 | \$ 757 | \$ 26 | \$ 611 | \$ 82 | \$ (278) | \$ 6,726 | \$ (3) |
| Liabilities | | | | | | | | |
| Interest sensitive contract liabilities | | | | | | | | |
| Embedded derivative | \$ (7,969) | \$ (1,017) | \$ — | \$ (120) | \$ — | \$ — | \$ (9,106) | \$ — |
| Universal life benefits | (932) | (47) | — | — | — | — | (979) | — |
| Future policy benefits | | | | | | | | |
| AmerUs Closed Block | (1,443) | (40) | — | — | — | — | (1,483) | — |
| ILICO Closed Block and life benefits | (730) | (13) | — | — | — | — | (743) | — |
| Derivative liabilities | (4) | — | — | — | — | — | (4) | — |
| Total Level 3 liabilities | \$ (11,078) | \$ (1,117) | \$ — | \$ (120) | \$ — | \$ — | \$ (12,315) | \$ — |

¹ Related to instruments held at end of period.

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ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Three months ended March 31, 2018

| (In millions) | Total realized and unrealized gains (losses) | | | | Transfers | | Ending balance | Total gains (losses) included in earnings ¹ |
|--|--|--------------------|-----------------|---|---------------|-----------------|--------------------|--|
| | Beginning balance | Included in income | Included in OCI | Net purchases, issuances, sales and settlements | In | Out | | |
| Assets | | | | | | | | |
| AFS Securities | | | | | | | | |
| Corporate | 578 | 4 | (4) | 58 | 53 | (8) | 681 | — |
| CLO | 64 | — | 2 | 131 | — | (30) | 167 | — |
| ABS | 1,457 | 2 | (7) | (104) | — | (58) | 1,290 | — |
| CMBS | 137 | — | (1) | — | — | (73) | 63 | — |
| RMBS | 301 | 1 | (5) | 23 | 7 | (289) | 38 | — |
| Trading securities | | | | | | | | |
| U.S. state, municipal and political subdivisions | 17 | — | — | — | — | — | 17 | — |
| CLO | 17 | — | — | 1 | — | (17) | 1 | — |
| ABS | 77 | — | — | — | — | (77) | — | (3) |
| RMBS | 342 | (21) | — | — | — | — | 321 | — |
| Equity Securities | 8 | — | — | (8) | — | — | — | — |
| Mortgage loans | 41 | — | — | — | — | — | 41 | — |
| Investment funds | 41 | (9) | — | (7) | — | — | 25 | — |
| Funds withheld at interest – embedded derivative | 312 | (105) | — | — | — | — | 207 | — |
| Investments in related parties | | | | | | | | |
| AFS Securities | | | | | | | | |
| CLO | — | — | — | 62 | — | — | 62 | — |
| ABS | 4 | — | — | — | — | — | 4 | — |
| Trading securities | | | | | | | | |
| CLO | 105 | 1 | — | (1) | 18 | (32) | 91 | (1) |
| ABS | — | — | — | — | 171 | — | 171 | — |
| Investment funds | — | 3 | — | 108 | — | — | 111 | 3 |
| Reinsurance recoverable | 1,824 | (111) | — | — | — | — | 1,713 | — |
| Investments of consolidated VIEs | | | | | | | | |
| Trading securities | 48 | — | — | (1) | — | — | 47 | — |
| Equity securities | 28 | — | — | — | — | — | 28 | — |
| Investment funds | 21 | 1 | — | (2) | — | — | 20 | 1 |
| Total Level 3 assets | \$ 5,422 | \$ (234) | \$ (15) | \$ 260 | \$ 249 | \$ (584) | \$ 5,098 | \$ — |
| Liabilities | | | | | | | | |
| Interest sensitive contract liabilities | | | | | | | | |
| Embedded derivative | \$ (7,411) | \$ 247 | \$ — | \$ (56) | \$ — | \$ — | \$ (7,220) | \$ — |
| Universal life benefits | (1,005) | 71 | — | — | — | — | (934) | — |
| Future policy benefits | | | | | | | | |
| AmerUs Closed Block | (1,625) | 84 | — | — | — | — | (1,541) | — |
| ILICO Closed Block and life benefits | (803) | 39 | — | — | — | — | (764) | — |
| Derivative liabilities | (5) | — | — | — | — | — | (5) | — |
| Total Level 3 liabilities | \$ (10,849) | \$ 441 | \$ — | \$ (56) | \$ — | \$ — | \$ (10,464) | \$ — |

¹ Related to instruments held at end of period.

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Notes to Condensed Consolidated Financial Statements (Unaudited)

The following represents the gross components of purchases, issuances, sales and settlements, net, shown above:

| Three months ended March 31, 2019 | | | | | |
|---|---------------|-----------------|----------------|-----------------|---|
| (In millions) | Purchases | Issuances | Sales | Settlements | Net purchases, issuances, sales and settlements |
| Assets | | | | | |
| AFS securities | | | | | |
| Corporate | \$ 238 | \$ — | \$ (1) | \$ (72) | \$ 165 |
| CLO | 30 | — | — | — | 30 |
| ABS | 189 | — | (33) | (99) | 57 |
| CMBS | — | — | — | (6) | (6) |
| Trading securities, ABS | 6 | — | — | — | 6 |
| Investment funds | — | — | — | (1) | (1) |
| Investments in related parties | | | | | |
| AFS securities, ABS | 170 | — | — | (1) | 169 |
| Equity securities | 177 | — | — | — | 177 |
| Investment funds | 19 | — | — | — | 19 |
| Investments of consolidated VIEs | | | | | |
| Trading securities | — | — | (1) | — | (1) |
| Equity securities | — | — | (4) | — | (4) |
| Total Level 3 assets | \$ 829 | \$ — | \$ (39) | \$ (179) | \$ 611 |
| Liabilities | | | | | |
| Interest sensitive contract liabilities | | | | | |
| Embedded derivative | \$ — | \$ (233) | \$ — | \$ 113 | \$ (120) |
| Total Level 3 liabilities | \$ — | \$ (233) | \$ — | \$ 113 | \$ (120) |

| Three months ended March 31, 2018 | | | | | |
|---|---------------|-----------------|----------------|-----------------|---|
| (In millions) | Purchases | Issuances | Sales | Settlements | Net purchases, issuances, sales and settlements |
| Assets | | | | | |
| AFS securities | | | | | |
| Corporate | \$ 68 | \$ — | \$ (5) | \$ (5) | \$ 58 |
| CLO | 131 | — | — | — | 131 |
| ABS | 40 | — | (20) | (124) | (104) |
| RMBS | 31 | — | — | (8) | 23 |
| Trading securities, CLO | 13 | — | — | (12) | 1 |
| Equity securities | — | — | (8) | — | (8) |
| Investment funds | — | — | — | (7) | (7) |
| Investments in related parties | | | | | |
| AFS securities, CLO | 62 | — | — | — | 62 |
| Trading securities, CLO | — | — | (1) | — | (1) |
| Investment funds | 108 | — | — | — | 108 |
| Investments of consolidated VIEs | | | | | |
| Trading securities | — | — | (1) | — | (1) |
| Investment funds | — | — | (2) | — | (2) |
| Total Level 3 assets | \$ 453 | \$ — | \$ (37) | \$ (156) | \$ 260 |
| Liabilities | | | | | |
| Interest sensitive contract liabilities | | | | | |
| Embedded derivative | \$ — | \$ (126) | \$ — | \$ 70 | \$ (56) |
| Total Level 3 liabilities | \$ — | \$ (126) | \$ — | \$ 70 | \$ (56) |

Significant Unobservable Inputs—Significant unobservable inputs occur when we could not obtain or corroborate the quantitative detail of the inputs. This applies to fixed maturity securities, equity securities, mortgage loans and certain derivatives, as well as embedded derivatives in liabilities. Additional significant unobservable inputs are described below.

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Notes to Condensed Consolidated Financial Statements (Unaudited)

AFS and trading securities – For certain fixed maturity securities, internal models are used to calculate the fair value. We use a discounted cash flow approach. The discount rate is the significant unobservable input due to the determined credit spread being internally developed, illiquid, or as a result of other adjustments made to the base rate. The base rate represents a market comparable rate for securities with similar characteristics. As of March 31, 2019, discounts ranged from 4% to 7%, and as of December 31, 2018, discounts ranged from 5% to 9%. This excludes assets for which significant unobservable inputs are not developed internally, primarily consisting of broker quotes.

Interest sensitive contract liabilities – embedded derivative – Significant unobservable inputs we use in the fixed indexed annuities embedded derivative of the interest sensitive contract liabilities valuation include:

1. Nonperformance risk – For contracts we issue, we use the credit spread, relative to the U.S. Department of the Treasury (Treasury) curve, based on our public credit rating as of the valuation date. This represents our credit risk for use in the estimate of the fair value of embedded derivatives.
2. Option budget – We assume future hedge costs in the derivative’s fair value estimate. The level of option budgets determines the future costs of the options and impacts future policyholder account value growth.
3. Policyholder behavior – We regularly review the lapse and withdrawal assumptions (surrender rate). These are based on our initial pricing assumptions updated for actual experience. Actual experience may be limited for recently issued products.

The following summarizes the unobservable inputs for the embedded derivatives of fixed indexed annuities:

| March 31, 2019 | | | | | |
|--|------------|----------------------|---------------------|-----------------------|--|
| <i>(In millions, except for percentages)</i> | Fair value | Valuation technique | Unobservable inputs | Input/range of inputs | Impact of an increase in the input on fair value |
| Interest sensitive contract liabilities – fixed indexed annuities embedded derivatives | \$ 9,106 | Option budget method | Nonperformance risk | 0.1% – 1.3% | Decrease |
| | | | Option budget | 0.7% – 3.7% | Increase |
| | | | Surrender rate | 3.6% – 7.5% | Decrease |

| December 31, 2018 | | | | | |
|--|------------|----------------------|---------------------|-----------------------|--|
| <i>(In millions, except for percentages)</i> | Fair value | Valuation technique | Unobservable inputs | Input/range of inputs | Impact of an increase in the input on fair value |
| Interest sensitive contract liabilities – fixed indexed annuities embedded derivatives | \$ 7,969 | Option budget method | Nonperformance risk | 0.3% – 1.5% | Decrease |
| | | | Option budget | 0.7% – 3.7% | Increase |
| | | | Surrender rate | 3.6% – 7.3% | Decrease |

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ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Fair Value of Financial Instruments Not Carried at Fair Value—The following represents our financial instruments not carried at fair value on the condensed consolidated balance sheets:

| <i>(In millions)</i> | March 31, 2019 | | | | | |
|--|------------------|------------------|-----------------|-------------|-----------------|------------------|
| | Carrying Value | Fair Value | NAV | Level 1 | Level 2 | Level 3 |
| Financial assets | | | | | | |
| Mortgage loans | \$ 11,010 | \$ 11,190 | \$ — | \$ — | \$ — | \$ 11,190 |
| Investment funds | 524 | 524 | 524 | — | — | — |
| Policy loans | 487 | 487 | — | — | 487 | — |
| Funds withheld at interest | 14,795 | 14,795 | — | — | — | 14,795 |
| Other investments | 69 | 69 | — | — | — | 69 |
| Investments in related parties | | | | | | |
| Mortgage loans | 291 | 286 | — | — | — | 286 |
| Investment funds | 2,058 | 2,058 | 2,058 | — | — | — |
| Funds withheld at interest | 13,469 | 13,469 | — | — | — | 13,469 |
| Other investments | 387 | 389 | — | — | — | 389 |
| Assets of consolidated VIEs | | | | | | |
| Investment funds | 55 | 55 | 55 | — | — | — |
| Total financial assets not carried at fair value | \$ 43,145 | \$ 43,322 | \$ 2,637 | \$ — | \$ 487 | \$ 40,198 |
| Financial liabilities | | | | | | |
| Interest sensitive contract liabilities | \$ 55,220 | \$ 53,504 | \$ — | \$ — | \$ — | \$ 53,504 |
| Long-term debt | 991 | 962 | — | — | 962 | — |
| Funds withheld liability | 712 | 712 | — | — | 712 | — |
| Total financial liabilities not carried at fair value | \$ 56,923 | \$ 55,178 | \$ — | \$ — | \$ 1,674 | \$ 53,504 |

| <i>(In millions)</i> | December 31, 2018 | | | | | |
|--|-------------------|------------------|-----------------|-------------|-----------------|------------------|
| | Carrying Value | Fair Value | NAV | Level 1 | Level 2 | Level 3 |
| Financial assets | | | | | | |
| Mortgage loans | \$ 10,308 | \$ 10,424 | \$ — | \$ — | \$ — | \$ 10,424 |
| Investment funds | 521 | 521 | 521 | — | — | — |
| Policy loans | 488 | 488 | — | — | 488 | — |
| Funds withheld at interest | 14,966 | 14,966 | — | — | — | 14,966 |
| Other investments | 70 | 70 | — | — | — | 70 |
| Investments in related parties | | | | | | |
| Mortgage loans | 291 | 290 | — | — | — | 290 |
| Investment funds | 2,031 | 2,031 | 2,031 | — | — | — |
| Funds withheld at interest | 13,687 | 13,687 | — | — | — | 13,687 |
| Other investments | 386 | 361 | — | — | — | 361 |
| Assets of consolidated VIEs | | | | | | |
| Investment funds | 57 | 57 | 57 | — | — | — |
| Total financial assets not carried at fair value | \$ 42,805 | \$ 42,895 | \$ 2,609 | \$ — | \$ 488 | \$ 39,798 |
| Financial liabilities | | | | | | |
| Interest sensitive contract liabilities | \$ 54,655 | \$ 51,655 | \$ — | \$ — | \$ — | \$ 51,655 |
| Long-term debt | 991 | 910 | — | — | 910 | — |
| Funds withheld liability | 722 | 722 | — | — | 722 | — |
| Total financial liabilities not carried at fair value | \$ 56,368 | \$ 53,287 | \$ — | \$ — | \$ 1,632 | \$ 51,655 |

We estimate the fair value for financial instruments not carried at fair value using the same methods and assumptions as those we carry at fair value. The financial instruments presented above are reported at carrying value on the condensed consolidated balance sheets; however, in the case of policy loans and funds withheld at interest and liability, the carrying amount approximates fair value.

Investment in related parties – Other investments – The fair value of related party other investments is determined using a discounted cash flow model using discount rates for similar investments.

ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Interest sensitive contract liabilities – The carrying and fair value of interest sensitive contract liabilities above includes fixed indexed and traditional fixed annuities without mortality or morbidity risks, funding agreements and payout annuities without life contingencies. The embedded derivatives within fixed indexed annuities without mortality or morbidity risks are excluded, as they are carried at fair value. The valuation of these investment contracts is based on discounted cash flow methodologies using significant unobservable inputs. The estimated fair value is determined using current market risk-free interest rates, adding a spread to reflect our nonperformance risk and subtracting a risk margin to reflect uncertainty inherent in the projected cash flows.

Long-term debt – We obtain the fair value of long-term debt from commercial pricing services. These are classified as Level 2. The pricing services incorporate a variety of market observable information in their valuation techniques including benchmark yields, trading activity, credit quality, issuer spreads, bids, offers and other reference data.

5. Deferred Acquisition Costs, Deferred Sales Inducements and Value of Business Acquired

The following represents a rollforward of deferred acquisition costs (DAC), deferred sales inducements (DSI) and value of business acquired (VOBA):

| <i>(In millions)</i> | DAC | DSI | VOBA | Total |
|--|----------|--------|----------|----------|
| Balance at December 31, 2018 | \$ 3,921 | \$ 799 | \$ 1,187 | \$ 5,907 |
| Additions | 173 | 60 | — | 233 |
| Amortization | (226) | (5) | (5) | (236) |
| Impact of unrealized investment (gains) losses | (149) | (49) | (87) | (285) |
| Balance at March 31, 2019 | \$ 3,719 | \$ 805 | \$ 1,095 | \$ 5,619 |

| <i>(In millions)</i> | DAC | DSI | VOBA | Total |
|--|----------|--------|----------|----------|
| Balance at December 31, 2017 | \$ 1,375 | \$ 520 | \$ 1,077 | \$ 2,972 |
| Additions | 122 | 46 | — | 168 |
| Amortization | (33) | (20) | (49) | (102) |
| Impact of unrealized investment (gains) losses | 67 | 22 | 79 | 168 |
| Balance at March 31, 2018 | \$ 1,531 | \$ 568 | \$ 1,107 | \$ 3,206 |

6. Earnings Per Share

The following represents our basic and diluted earnings per share (EPS) calculations:

| <i>(In millions, except per share data)</i> | Three months ended March 31, 2019 | | | | | |
|---|-----------------------------------|---------|-----------|-----------|-----------|-----------|
| | Class A | Class B | Class M-1 | Class M-2 | Class M-3 | Class M-4 |
| Net income – basic and diluted | \$ 589 | \$ 93 | \$ 12 | \$ 3 | \$ 3 | \$ 8 |
| Basic weighted average shares outstanding | 161.3 | 25.4 | 3.4 | 0.8 | 1.0 | 2.1 |
| Dilutive effect of stock compensation plans | 0.4 | — | — | — | — | 0.3 |
| Diluted weighted average shares outstanding | 161.7 | 25.4 | 3.4 | 0.8 | 1.0 | 2.4 |
| Earnings per share¹ | | | | | | |
| Basic | \$ 3.65 | \$ 3.65 | \$ 3.65 | \$ 3.65 | \$ 3.65 | \$ 3.65 |
| Diluted | \$ 3.64 | \$ 3.65 | \$ 3.65 | \$ 3.65 | \$ 3.65 | \$ 3.15 |

¹ Calculated using whole figures.

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ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

| (In millions, except per share data) | Three months ended March 31, 2018 | | | | | |
|---|-----------------------------------|---------|-----------|-----------|-----------|-----------|
| | Class A | Class B | Class M-1 | Class M-2 | Class M-3 | Class M-4 |
| Net income – basic and diluted | \$ 209 | \$ 58 | \$ 5 | \$ 1 | \$ 1 | \$ 3 |
| Basic weighted average shares outstanding | 148.7 | 41.1 | 3.4 | 0.8 | 1.0 | 2.1 |
| Dilutive effect of stock compensation plans | 0.3 | — | — | — | — | 0.9 |
| Diluted weighted average shares outstanding | 149.0 | 41.1 | 3.4 | 0.8 | 1.0 | 3.0 |
| Earnings per share¹ | | | | | | |
| Basic | \$ 1.40 | \$ 1.40 | \$ 1.40 | \$ 1.40 | \$ 1.40 | \$ 1.40 |
| Diluted | \$ 1.40 | \$ 1.40 | \$ 1.40 | \$ 1.39 | \$ 1.38 | \$ 0.97 |

¹ Calculated using whole figures.

We use the two-class method for allocating net income to each class of our common stock. Dilutive shares are calculated using the treasury stock method. For Class A shares, this method takes into account shares that can be settled into Class A shares, net of a conversion price. The diluted EPS calculations for Class A shares excluded the following shares, restricted stock units (RSUs) and options:

| (In millions) | Three months ended March 31, | |
|--|------------------------------|------|
| | 2019 | 2018 |
| Antidilutive shares, RSUs and options excluded from diluted EPS calculation | 34.7 | 35.2 |
| Shares, RSUs and options excluded from diluted EPS calculation as a performance condition had not been met | 0.1 | 0.3 |
| Total shares, RSUs and options excluded from diluted EPS calculation | 34.8 | 35.5 |

Note: Shares, RSUs and options are as of period end.

7. Equity

Share Repurchase Authorization—In December 2018, our board of directors approved an authorization for the repurchase of our Class A shares under our repurchase program. In the first quarter of 2019, our board of directors approved an additional authorization, which was conditioned upon the further approval by a committee of our board of directors. Such further approval was granted during the second quarter of 2019. We may repurchase shares in open market transactions, in privately negotiated transactions or otherwise. The size and timing of repurchases will depend on legal requirements, market and economic conditions and other factors, and are solely at our discretion. The program has no expiration date, but may be modified, suspended or terminated by the board at any time.

The following summarizes the activity on our share repurchase authorization:

| (In millions) | |
|--|--------|
| Initial authorization | \$ 250 |
| Repurchases | (100) |
| Remaining authorization at December 31, 2018 | 150 |
| Repurchases | (47) |
| Remaining authorization at March 31, 2019 | 103 |
| Additional authorization | 247 |
| Remaining authorization at May 7, 2019 | \$ 350 |

Accumulated Other Comprehensive Income (Loss)—The following provides the details of AOCI and changes in AOCI:

| (In millions) | March 31, 2019 | December 31, 2018 |
|---|----------------|-------------------|
| AFS securities | \$ 1,223 | \$ (766) |
| DAC, DSI, VOBA and future policy benefits adjustments on AFS securities | (357) | 154 |
| Noncredit component of OTTI losses on AFS securities | (20) | (19) |
| Hedging instruments | 43 | 51 |
| Pension adjustments | (3) | (2) |
| Foreign currency translation adjustments | (2) | (3) |
| Accumulated other comprehensive income (loss), before taxes | 884 | (585) |
| Deferred income taxes | (178) | 113 |
| Accumulated other comprehensive income (loss) | \$ 706 | \$ (472) |

ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

Changes in AOCI are presented below:

| <i>(In millions)</i> | Three months ended March 31, | |
|--|------------------------------|------------|
| | 2019 | 2018 |
| Unrealized investment gains (losses) on AFS securities | | |
| Unrealized investment gains (losses) on AFS securities | \$ 1,982 | \$ (1,282) |
| Change in DAC, DSI, VOBA and future policy benefits adjustment | (511) | 410 |
| Less: Reclassification adjustment for gains (losses) realized in net income ¹ | (7) | 19 |
| Less: Income tax expense (benefit) | 293 | (159) |
| Net unrealized investment gains (losses) on AFS securities | 1,185 | (732) |
| Noncredit component of OTTI losses on AFS securities | | |
| Noncredit component of OTTI losses on AFS securities | (1) | (1) |
| Less: Reclassification adjustment for losses realized in net income ¹ | — | (1) |
| Net noncredit component of OTTI losses on AFS securities | (1) | — |
| Unrealized gains (losses) on hedging instruments | | |
| Unrealized gains (losses) on hedging instruments | (8) | (56) |
| Less: Income tax benefit | (2) | (20) |
| Net unrealized gains (losses) on hedging instruments | (6) | (36) |
| Pension adjustments | (1) | 3 |
| Foreign currency translation adjustments | 1 | (8) |
| Change in AOCI from other comprehensive income (loss) | 1,178 | (773) |
| Adoption of accounting standards | — | (42) |
| Change in AOCI | \$ 1,178 | \$ (815) |

¹ Recognized in investment related gains (losses) on the condensed consolidated statements of income.

8. Related Parties

Athene Asset Management

Investment related expenses – Substantially all of our investments are managed by Athene Asset Management LLC (AAM), a subsidiary of AGM. AAM provides direct investment management, asset allocation, mergers and acquisition asset diligence and certain operational support services for our investment portfolio, including investment compliance, tax, legal and risk management support. As of March 31, 2019, AAM directly managed \$90,287 million of our investment portfolio assets, of which 86% are designated one or two (the two highest designations) by the National Association of Insurance Commissioners (NAIC).

For the services it renders, AAM earns a fee on all assets managed in accounts owned by or related to us, including sub-advised assets, subject to certain limited exceptions. Additionally, AAM recharges the sub-advisory fees it incurs with respect to our sub-advised assets to us. We currently pay AAM an annual fee of 0.40%, subject to certain discounts and exceptions, on all assets that AAM manages in accounts owned by us in the U.S. and Bermuda or in accounts supporting reinsurance ceded to our U.S. and Bermuda subsidiaries by third-party insurers (North American Accounts) up to \$65,846 million and 0.30% per year on assets managed in excess of such amount.

For certain assets which require specialized sourcing and underwriting capabilities, AAM has chosen to mandate sub-advisors rather than building out in-house capabilities. AAM has entered into Master Sub-Advisory Agreements (MSAAs) with certain Apollo affiliates to sub-advise AAM with respect to a portion of our assets, with the fees recharged to us, in addition to the gross fee paid to AAM as described above.

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ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

The MSAAs cover services rendered by Apollo-affiliated sub-advisors relating to the following investments:

| <i>(In millions, except for percentages)</i> | March 31, 2019 | December 31, 2018 |
|---|------------------|-------------------|
| AFS securities | | |
| Foreign governments | \$ 240 | \$ 153 |
| Corporate | 3,680 | 3,398 |
| CLO | 6,487 | 5,703 |
| ABS | 654 | 663 |
| CMBS | 1,011 | 880 |
| Trading securities | 88 | 87 |
| Equity securities | 2 | 2 |
| Mortgage loans | 3,856 | 3,507 |
| Investment funds | 309 | 157 |
| Funds withheld at interest | 4,935 | 4,126 |
| Other investments | 69 | 70 |
| Total assets sub-advised by Apollo affiliates | \$ 21,331 | \$ 18,746 |
| Percent of assets sub-advised by Apollo affiliates to total AAM-managed assets | 19% | 18% |

AAM pays Apollo 0.40% per year on all assets in the North American Accounts explicitly sub-advised by Apollo up to \$10,000 million, 0.35% per year on all assets in such accounts explicitly sub-advised by Apollo in excess of \$10,000 million up to \$12,441 million, 0.40% per year on all assets in such accounts explicitly sub-advised by Apollo in excess of \$12,441 million up to \$16,000 million, and 0.35% per year on all assets in such accounts explicitly sub-advised by Apollo in excess of \$16,000 million, subject to certain exceptions.

Asset management and sub-advisory fees—The following summarizes the asset management fees and sub-advisory fees we have incurred related to AAM and other Apollo affiliates:

| <i>(In millions)</i> | Three months ended March 31, | |
|-----------------------|------------------------------|-------|
| | 2019 | 2018 |
| Asset management fees | \$ 75 | \$ 70 |
| Sub-advisory fees | 17 | 13 |

The management and sub-advisory fees are included within net investment income on the condensed consolidated statements of income. As of March 31, 2019 and December 31, 2018, the management fees payable was \$35 million and \$34 million, respectively, and the sub-advisory fees payable was \$16 million and \$20 million, respectively. Both the management and sub-advisory fees payables are included in other liabilities on the condensed consolidated balance sheets.

Our bye-laws currently provide that we may not, and will cause our subsidiaries not to, terminate any investment management agreement (IMA) among us or any of our subsidiaries, on the one hand, and AAM, on the other hand, before any annual anniversary of October 31 (each such date, an IMA Termination Election Date) and any termination on an IMA Termination Election Date requires (i) the approval of two-thirds of our Independent Directors (as defined in the bye-laws) and (ii) prior written notice to AAM of such termination at least 30 days' prior to an IMA Termination Election Date. If our Independent Directors make such election to terminate and notice of such termination is delivered, the termination will be effective on the second anniversary of the applicable IMA Termination Election Date (IMA Termination Effective Date). Notwithstanding the foregoing, (A) except as set forth in (B) below, our Independent Directors may only elect to terminate an IMA on an IMA Termination Election Date if two-thirds of our Independent Directors determine, in their sole discretion and acting in good faith, that either (i) there has been unsatisfactory long-term performance materially detrimental to us by AAM or (ii) the fees being charged by AAM are unfair and excessive compared to a comparable asset manager (provided, that in either case such Independent Directors must deliver notice of any such determination to AAM and AAM will have until the applicable IMA Termination Effective Date to address such concerns, and provided, further, that in the case of such a determination that the fees being charged by Apollo are unfair and excessive, Apollo has the right to lower its fees to match the fees of such comparable asset manager) and (B) upon the determination by two-thirds of our Independent Directors, we or our subsidiaries may also terminate an IMA with AAM as a result of either (i) a material violation of law relating to AAM's advisory business, or (ii) AAM's gross negligence, willful misconduct or reckless disregard of its obligations under the relevant agreement, and in either case, the delivery of written notice at least 30 days' prior to such termination and such termination will be effective at the end of such 30-day period (the events described in the foregoing clauses (A) and (B) are referred to in more detail in our bye-laws as "AHL Cause").

We have a management investment committee, which includes members of our senior management and reports to the risk committee of our board of directors. The committee focuses on strategic decisions involving our investment portfolio, such as approving investment limits, new asset classes and our allocation strategy, reviewing large asset transactions, as well as monitoring our credit risk, and the management of our assets and liabilities.

ATHENE HOLDING LTD.

Notes to Condensed Consolidated Financial Statements (Unaudited)

A significant voting interest in the Company is held by shareholders who are members of the Apollo Group, as defined in our bye-laws. Also, James Belardi, our Chief Executive Officer, is also an employee of AAM, receives remuneration from acting as Chief Executive Officer of AAM, and owns a profits interest in AAM. Additionally, six of the fifteen members of our board of directors are employees of or consultants to Apollo (including Mr. Belardi). In order to protect against potential conflicts of interest resulting from transactions into which we have entered and will continue to enter into with the Apollo Group, our bye-laws require us to maintain a conflicts committee comprised solely of directors who are not officers or employees of any member of the Apollo Group. The conflicts committee reviews and approves material transactions between us and the Apollo Group, subject to certain exceptions.

Other related party transactions

A-A Mortgage Opportunities, L.P. (A-A Mortgage) – We have an equity method investment of \$436 million and \$463 million as of March 31, 2019 and December 31, 2018, respectively, in A-A Mortgage, which has an investment in AmeriHome. We have a loan purchase agreement with AmeriHome. The agreement allows us to purchase residential mortgage loans which AmeriHome has purchased from correspondent sellers and pooled for sale in the secondary market. AmeriHome retains the servicing rights to the sold loans. We purchased \$0 million and \$44 million of residential mortgage loans under this agreement during the three months ended March 31, 2019 and 2018, respectively. We also have commitments to make additional equity investments in A-A Mortgage of \$169 million as of March 31, 2019.

MidCap – AAA Investment (Co Invest VII), L.P. (CoInvest VII) holds a significant investment in MidCap, which is included in investment funds of consolidated VIEs on the condensed consolidated balance sheets. We have also advanced amounts under a subordinated debt facility to Midcap and, as of March 31, 2019 and December 31, 2018, the principal balance was \$245 million, which is included in other related party investments on the condensed consolidated balance sheets. Our total investment in MidCap, including amounts advanced under credit facilities, was \$789 million and \$791 million as of March 31, 2019 and December 31, 2018, respectively. Additionally, we purchased ABS and CLO securities issued by MidCap affiliates during the three months ended March 31, 2019 and 2018 of \$2 million and \$62 million, respectively, which are included in related party AFS securities on the condensed consolidated balance sheets.

Athora – We have a cooperation agreement with Athora, pursuant to which, among other things, (1) we have the right to reinsure approximately 20% of the spread business written or reinsured by any insurance or reinsurance company owned or acquired by Athora, (2) Athora's insurance subsidiaries are required to purchase certain funding agreements and/or other spread instruments issued by our insurance subsidiaries, (3) we provide Athora with a right of first refusal to pursue acquisition and reinsurance transactions in Europe (other than the United Kingdom) and (4) Athora provides us and our subsidiaries with a right of first refusal to pursue acquisition and reinsurance transactions in North America and the United Kingdom. Our investment in Athora, which is included in related party investment funds on the condensed consolidated balance sheets, was \$124 million and \$105 million as of March 31, 2019 and December 31, 2018, respectively. Additionally, as of March 31, 2019 and December 31, 2018, we had \$163 million and \$166 million of funding agreements outstanding to Athora. We also have commitments to make additional equity investments in Athora of \$300 million as of March 31, 2019.

Venerable – In connection with our coinsurance and modco agreements with Voya Insurance and Annuity Company (VIAC), we have an \$87 million minority equity investment in VA Capital Company LLC (VA Capital), which is included in related party investment funds on the condensed consolidated balance sheets and accounted for as an equity method investment. VA Capital is owned by a consortium of investors, led by affiliates of AGM, Crestview Partners and Reverence Capital Partners, and is the holding company of Venerable. Additionally, we have a \$148 million, 15-year term loan receivable from Venerable, which is held at amortized cost and included in related party other investments on the condensed consolidated balance sheets. While management views the overall transactions with VIAC and Venerable as favorable to us, the stated interest rate of 6.257% on the term loan to Venerable represents a below-market interest rate, and management considered such rate as part of its evaluation and pricing of the Voya reinsurance transactions. Venerable is the holding company of VIAC.

Strategic Partnership – On October 24, 2018, we entered into an agreement pursuant to which we may invest up to \$2.5 billion over three years in funds managed by Apollo entities (Strategic Partnership). This arrangement is intended to permit us to invest across the Apollo alternatives platform into credit-oriented, strategic and other alternative investments in a manner and size that is consistent with our existing investment strategy. Fees for such investments payable by us to Apollo would be more favorable to us than market rates, and consistent with our existing alternative investments, investments made under the Strategic Partnership require approval of AAM and remain subject to our existing governance processes, including approval by our conflicts committee where applicable. As of March 31, 2019 and December 31, 2018, we had \$16 million of investments under the Strategic Partnership and these investments are classified as investment funds of consolidated VIEs.

9. Commitments and Contingencies

Contingent Commitments—We had commitments to make investments, primarily capital contributions to investment funds, inclusive of related party commitments discussed previously, of \$2,938 million and \$3,036 million as of March 31, 2019 and December 31, 2018, respectively. We expect most of our current commitments will be invested over the next five years; however, these commitments could become due any time upon counterparty request.

Funding Agreements—We are a member of the Federal Home Loan Bank (FHLB) and, through membership, we have issued funding agreements to the FHLB in exchange for cash advances. As of March 31, 2019 and December 31, 2018, we had \$926 million of FHLB funding agreements outstanding. We are required to provide collateral in excess of the funding agreement amounts outstanding, considering any discounts to the securities posted and prepayment penalties.

ATHENE HOLDING LTD.**Notes to Condensed Consolidated Financial Statements (Unaudited)**

We have a funding agreement backed notes (FABN) program, which allows Athene Global Funding, a special-purpose, unaffiliated statutory trust to offer up to \$10 billion of its senior secured medium-term notes. Athene Global Funding uses the net proceeds from each sale to purchase one or more funding agreements from us. As of March 31, 2019 and December 31, 2018, we had \$2,700 million of FABN funding agreements outstanding.

Pledged Assets and Funds in Trust (Restricted Assets)—The total restricted assets included on the condensed consolidated balance sheets are as follows:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|--------------------------------|-----------------|-------------------|
| AFS securities | \$ 6,543 | \$ 5,439 |
| Trading securities | 277 | 68 |
| Equity securities | 2 | 2 |
| Mortgage loans | 1,967 | 1,830 |
| Investment funds | 56 | 53 |
| Derivative assets | 68 | 24 |
| Short-term investments | 56 | 77 |
| Other investments | 47 | 47 |
| Restricted cash | 497 | 492 |
| Total restricted assets | \$ 9,513 | \$ 8,032 |

The restricted assets are primarily related to reinsurance trusts established in accordance with coinsurance agreements, and the FHLB funding agreements described above.

Letter of Credit—We have an unused letter of credit for \$219 million as of March 31, 2019. This letter of credit was issued for our reinsurance program and expires by December 31, 2020.

Litigation, Claims and Assessments

Corporate-owned Life Insurance (COLI) Matter – In 2000 and 2001, two insurance companies, which were subsequently merged into Athene Annuity and Life Company (AAIA), purchased from American General Life Insurance Company (American General) broad based variable COLI policies that, as of March 31, 2019, had an asset value of \$373 million, and is included in other assets on the condensed consolidated balance sheets. In January 2012, the COLI policy administrator delivered to AAIA a supplement to the existing COLI policies and advised that American General and ZC Resource Investment Trust (ZC Trust) had unilaterally implemented changes set forth in the supplement that if effective, would: (1) potentially negatively impact the crediting rate for the policies and (2) change the exit and surrender protocols set forth in the policies. In March 2013, AAIA filed suit against American General, ZC Trust, and ZC Resource LLC in Chancery Court in Delaware, seeking, among other relief, a declaration that the changes set forth in the supplement were ineffectual and in breach of the parties' agreement. The parties filed cross motions for judgment as a matter of law, and the court granted defendants' motion and dismissed without prejudice on ripeness grounds. The issue that negatively impacts the crediting rate for one of the COLI policies has subsequently been triggered and on April 3, 2018, we filed suit against the same defendants in Chancery Court in Delaware seeking substantially similar relief, which the defendants have moved to dismiss. The Court heard oral arguments on February 13, 2019 and has taken the matter under advisement. If the supplement is ultimately deemed to be effective, the purported changes to the policies could impair AAIA's ability to access the value of guarantees associated with the policies. The value of the guarantees included within the asset value reflected above is \$185 million as of March 31, 2019.

Regulatory Matters – Our U.S. insurance subsidiaries have experienced increased service and administration complaints related to the conversion and administration of the block of life insurance business acquired in connection with our acquisition of Aviva USA and reinsured to affiliates of Global Atlantic. The life insurance policies included in this block have been and are currently being administered by AllianceOne Inc. (AllianceOne), a subsidiary of DXC Technology Company, which was retained by such Global Atlantic affiliates to provide services on such policies. AllianceOne also administers certain annuity policies that were on Aviva USA's legacy policy administration systems that were also converted in connection with the acquisition of Aviva USA and have experienced similar service and administration issues.

As a result of the difficulties experienced with respect to the administration of such policies, we have received notifications from several state regulators, including but not limited to the New York State Department of Financial Services (NYSDFS), the California Department of Insurance and the Texas Department of Insurance, indicating, in each case, that the respective regulator planned to undertake a market conduct examination or enforcement proceeding of the applicable U.S. insurance subsidiary relating to the treatment of policyholders subject to our reinsurance agreements with affiliates of Global Atlantic and the conversion of such annuity policies, including the administration of such blocks by AllianceOne. On June 28, 2018 we entered into a consent order with the NYSDFS resolving that matter in a manner that, when considering the indemnification received from affiliates of Global Atlantic, did not have a material impact on our financial condition, results of operations or cash flows.

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Notes to Condensed Consolidated Financial Statements (Unaudited)

In addition to the foregoing, we have received inquiries, and expect to continue to receive inquiries, from other regulatory authorities regarding the conversion matter. In addition to the examinations and proceedings initiated to date, it is possible that other regulators may pursue similar formal examinations, inquiries or enforcement proceedings and that any examinations, inquiries and/or enforcement proceedings may result in fines, administrative penalties and payments to policyholders. While we do not expect the amount of any such fines, penalties or payments arising from these matters to be material to our financial condition, results of operations or cash flows, it is possible that such amounts could be material.

Pursuant to the terms of the reinsurance agreements between us and the relevant affiliates of Global Atlantic, the applicable affiliates of Global Atlantic have financial responsibility for the ceded life block and are subject to significant administrative service requirements, including compliance with applicable law. The agreements also provide for indemnification to us, including for administration issues.

On January 23, 2019, we received a letter from the NYSDFS, with respect to a recent pension risk transfer (PRT) transaction, which expressed concerns with our interpretation and reliance upon certain exemptions from licensing in New York in connection with certain activities performed by employees in our PRT channel, including specific activities performed within New York. We are currently in discussions with the NYSDFS to identify approaches to resolve its concerns. Reasonably possible losses, if any, cannot be estimated at this time.

Caldera Matters – On May 3, 2018, AHL filed a writ commencing litigation in the Supreme Court of Bermuda against a former officer of AHL, a former director of AHL (who is also considered a former officer pursuant to Bermuda law), and Caldera Holdings, Ltd. (Caldera). AHL alleges in the writ, among other things, that the defendants breached various duties owed to AHL under Bermuda law by using AHL’s confidential information in their attempted acquisition of a company referred to in the litigation as Company A. AHL is seeking injunctive relief and damages.

On May 3, 2018, following AHL’s filing of the writ in Bermuda described above, Caldera, Caldera Life Reinsurance Company, and Caldera Shareholder, L.P., commenced an action in the Supreme Court of the State of New York, County of New York, by filing a Summons with Notice against AHL, Apollo, certain affiliates of Apollo and Leon Black, a founder of Apollo. On July 12, 2018, plaintiffs filed a complaint alleging claims for tortious interference with prospective business relations, defamation, and unfair competition related to plaintiffs’ attempt to purchase Company A and seeking alleged damages of “no less than \$1.5 billion.” AHL has moved to dismiss the complaint. On January 21, 2019, plaintiffs filed an amended complaint, which revised certain allegations about jurisdiction, venue and the merits of the plaintiffs’ claims. We have renewed our motion to dismiss and the matter is fully briefed. We believe we have meritorious defenses to the claims and intend to vigorously defend the litigation. In light of the inherent uncertainties involved in this matter, reasonably possible losses, if any, cannot be estimated at this time.

10. Segment Information

We operate our core business strategies out of one reportable segment, Retirement Services. In addition to Retirement Services, we report certain other operations in Corporate and Other.

Retirement Services—Retirement Services is comprised of our U.S. and Bermuda operations, which issue and reinsure retirement savings products and institutional products. Retirement Services has retail operations, which provide annuity retirement solutions to our policyholders. Retirement Services also has reinsurance operations, which reinsure multi-year guaranteed annuities, fixed indexed annuities, traditional one-year guarantee fixed deferred annuities, immediate annuities and institutional products from our reinsurance partners. In addition, our institutional operations, including funding agreements and group annuities, are included in our Retirement Services segment.

Corporate and Other—Corporate and Other includes certain other operations related to our corporate activities. Included in Corporate and Other are corporate allocated expenses, merger and acquisition costs, debt costs, certain integration and restructuring costs, certain stock-based compensation and intersegment eliminations. In addition, we also hold capital in excess of the level of capital we hold in Retirement Services to support our operating strategy.

Financial Measures—Segment adjusted operating income is an internal measure used by the chief operating decision maker to evaluate and assess the results of our segments.

Adjusted operating revenue is a component of adjusted operating income and excludes market volatility and adjustments for other non-operating activity. Our adjusted operating revenue equals our total revenue, adjusted to eliminate the impact of the following non-operating adjustments:

- Change in fair values of derivatives and embedded derivatives – index annuities, net of offsets;
- Investment gains (losses), net of offsets;
- VIE expenses and noncontrolling interest; and
- Other adjustments to revenues.

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Notes to Condensed Consolidated Financial Statements (Unaudited)

The table below reconciles segment adjusted operating revenues to total revenues presented on the condensed consolidated statements of income:

| <i>(In millions)</i> | Three months ended March 31, | |
|---|------------------------------|-----------------|
| | 2019 | 2018 |
| Retirement Services | \$ 3,306 | \$ 1,257 |
| Corporate and Other | 32 | 27 |
| Non-operating adjustments | | |
| Change in fair values of derivatives and embedded derivatives – index annuities, net of offsets | 940 | (158) |
| Investment gains (losses), net of offsets | 713 | (106) |
| Other adjustments to revenues | (30) | (9) |
| Total revenues | \$ 4,961 | \$ 1,011 |

Adjusted operating income is an internal measure used to evaluate our financial performance excluding market volatility and expenses related to integration, restructuring, stock compensation and certain other expenses. Our adjusted operating income equals net income adjusted to eliminate the impact of the following non-operating adjustments:

- Investment gains (losses), net of offsets;
- Change in fair values of derivatives and embedded derivatives – index annuities, net of offsets;
- Integration, restructuring and other non-operating expenses;
- Stock-based compensation, excluding the long-term incentive plan (LTIP); and
- Income tax (expense) benefit – non-operating.

The table below reconciles segment adjusted operating income to net income presented on the condensed consolidated statements of income:

| <i>(In millions)</i> | Three months ended March 31, | |
|---|------------------------------|---------------|
| | 2019 | 2018 |
| Retirement Services | \$ 286 | \$ 239 |
| Corporate and Other | 1 | 2 |
| Non-operating adjustments | | |
| Investment gains (losses), net of offsets | 458 | (33) |
| Change in fair values of derivatives and embedded derivatives – index annuities, net of offsets | (27) | 86 |
| Integration, restructuring and other non-operating expenses | (1) | (8) |
| Stock-based compensation, excluding LTIP | (3) | (3) |
| Income tax (expense) benefit – non-operating | (6) | (6) |
| Net income | \$ 708 | \$ 277 |

The following represents total assets by segment:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|----------------------|-------------------|-------------------|
| Retirement Services | \$ 130,965 | \$ 123,498 |
| Corporate and Other | 1,892 | 2,007 |
| Total assets | \$ 132,857 | \$ 125,505 |

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

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

Overview

We are a leading retirement services company that issues, reinsures and acquires retirement savings products designed for the increasing number of individuals and institutions seeking to fund retirement needs. We generate attractive financial results for our policyholders and shareholders by combining our two core competencies of (1) sourcing long-term, generally illiquid liabilities and (2) investing in a high-quality investment portfolio, which takes advantage of the illiquid nature of our liabilities. Our steady and significant base of earnings generates capital that we opportunistically invest across our business to source attractively-priced liabilities and capitalize on opportunities.

We have established a significant base of earnings and, as of March 31, 2019, have an expected Retirement Services annual net investment spread, which measures our investment performance less the total cost of our liabilities, of 1–2% over the 9.6 year weighted-average life of our reserve liabilities. The weighted-average life includes deferred annuities, PRT group annuities, funding agreements, payout annuities and other products.

We operate our core business strategies out of one reportable segment, Retirement Services. In addition to Retirement Services, we report certain other operations in Corporate and Other. Retirement Services is comprised of our U.S. and Bermuda operations which issue and reinsure retirement savings products and institutional products. Corporate and Other includes certain other operations related to our corporate activities.

Our consolidated annualized ROE for the three months ended March 31, 2019 and the year ended December 31, 2018 was 30.8% and 12.1%, respectively, and our consolidated annualized adjusted operating ROE was 12.8% and 13.9%, respectively. For the three months ended March 31, 2019 and the year ended December 31, 2018, in our Retirement Services segment, we generated an annualized net investment spread of 1.36% and 1.70%, respectively, and an annualized adjusted operating ROE of 14.4% and 18.4%, respectively. Our Retirement Services segment generated an annualized investment margin on deferred annuities of 2.23% and 2.65% for the three months ended March 31, 2019 and the year ended December 31, 2018, respectively. As of March 31, 2019, our deferred annuities had a weighted-average life of 9.0 years and made up a significant portion of our reserve liabilities. We currently maintain what we believe to be high capital ratios for our rating and, as of March 31, 2019, hold approximately \$1 billion of excess capital, which we view as strategic capital available to reinvest into organic and inorganic growth opportunities.

The following table presents the deposits generated from our organic and inorganic channels:

| <i>(In millions)</i> | Three months ended March 31, | |
|------------------------|------------------------------|----------|
| | 2019 | 2018 |
| Retail sales | \$ 1,816 | \$ 1,286 |
| Flow reinsurance | 1,020 | 204 |
| Funding agreements | — | 300 |
| Pension risk transfer | 1,923 | 266 |
| Total organic deposits | 4,759 | 2,056 |
| Inorganic deposits | — | — |
| Total deposits | \$ 4,759 | \$ 2,056 |

Our organic channels, including retail, flow reinsurance and institutional products, provided deposits of \$4.8 billion and \$2.1 billion in the three months ended March 31, 2019 and 2018, respectively. Withdrawals on our deferred annuities, maturities of our funding agreements, payments on payout annuities and pension risk benefit payments (collectively, liability outflows), in the aggregate, were \$2.8 billion and \$1.8 billion for the three months ended March 31, 2019 and 2018, respectively. We believe that our improving credit profile, our current product offerings and product design capabilities as well as our growing reputation as both a seasoned funding agreement issuer and a reliable PRT counterparty will continue to enable us to grow our existing organic channels and allow us to source additional volumes of profitably underwritten liabilities in various market environments. We plan to continue to grow organically by expanding each of our retail, flow reinsurance and institutional distribution channels. We believe that we have the right people, infrastructure and scale to position us for continued growth.

Within our retail channel, we had fixed annuity sales of \$1.8 billion and \$1.3 billion for the three months ended March 31, 2019 and 2018, respectively. The increase in our retail channel was driven by significant growth in our bank channel including the addition of new bank partners, the rising rate environment and new product introductions. We aim to grow our retail channel by deepening our relationships with our approximately 55 independent marketing organizations (IMO); more than 40,000 independent agents; and our growing network of 10 small and mid-sized banks and 79 regional broker-dealers. Our strong financial position and capital efficient products allow us to be dependable partners with IMOs, banks and broker-dealers as well as consistently write new business. We work with our IMOs to develop customized, and at times exclusive, products that help drive sales. We expect our retail channel to continue to benefit from our improving credit profile and recent product launches. We believe this should support growth in sales at our desired cost of crediting through increased volumes via current IMOs, while also allowing us to continue to expand our bank and broker-dealer channels. We have recently implemented a new technology platform for our retail business and continue to expand our capabilities. Additionally, we focus on hiring and training a specialized sales force and continuously create products to capture new potential distribution opportunities.

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In our flow reinsurance channel, we target reinsurance business consistent with our preferred liability characteristics and, as such, flow reinsurance provides another opportunistic channel for us to source long-term liabilities with attractive crediting rates. We generated deposits through our flow reinsurance channel of \$1.1 billion and \$204 million for the three months ended March 31, 2019 and 2018, respectively. The increase in our flow reinsurance channel was driven by the addition of new partners, new product launches by our partners and the rising rate environment. We expect that our improving credit profile will help us continue to source additional reinsurance partners, which will further diversify our flow reinsurance channel.

Within our institutional channel, we generated deposits of \$1.9 billion and \$566 million for the three months ended March 31, 2019 and 2018, respectively. The increase in our institutional channel is driven by higher PRT deposits. During the three months ended March 31, 2019, we closed two PRT transactions and issued group annuity contracts in the aggregate principal amount of \$1.9 billion, compared to \$266 million during the three months ended March 31, 2018. Unfavorable market conditions have limited our issuances of funding agreements. We issued funding agreements in the aggregate principal amount of \$0 million and \$300 million for the three months ended March 31, 2019 and 2018, respectively. We expect to grow our institutional channel by continuing to engage in PRT transactions and opportunistic issuances of funding agreements.

Our inorganic channel has contributed significantly to our growth and in 2018, we generated \$27.0 billion of deposits driven by two block reinsurance transactions. On June 1, 2018, we closed on the Voya reinsurance transaction pursuant to which we entered into coinsurance and modco agreements with VIAC and ReliaStar Life Insurance Company (RLI) to reinsure a block of fixed and fixed indexed annuities providing \$19.1 billion of deposits. On December 7, 2018, we entered into a modified coinsurance agreement with Lincoln, with an effective date of October 1, 2018, to reinsure an 80% quota share of fixed deferred and fixed indexed annuities providing \$7.9 billion of deposits. Our inorganic channels have contributed significantly to our growth, and we expect that these channels will continue to be important sources of profitable growth in the future. We believe our internal transactions team, with support from Apollo, has an industry-leading ability to source, underwrite and expeditiously close transactions. With our relationship with Apollo, we are a solutions provider with a proven track record to close transactions, which we believe makes us the ideal partner to insurance companies seeking to restructure their business.

Industry Trends and Competition

Market Conditions

After its March meeting, the U.S. Federal Reserve brought its tightening monetary policy to an end, while also abandoning projections of any future rate hikes for the current year. Additionally, over the last few months, the ongoing flattening of the Treasury curve at one point gave way to a curve inversion. Whether signaling low long-term inflation expectations, or an impending recession, or simply due to supply dynamics in the global search for asset yield, the level of longer dated Treasury yields affects the yield that we earn on invested assets. While current economic fundamentals appear strong, uncertainty about future fiscal policy, changes in tax policy, the scope of potential deregulation, the imposition of tariffs or other barriers to international trade and levels of global trade, the future path of the Federal Reserve's quantitative tightening or easing, along with uncertainty about the Federal Reserve's ability to manage its normalization process and the impact on inflation and wage growth, may trigger continued volatility across financial markets, and specifically equity market volatility, which may adversely affect the hedging costs of our liability policy hedging program. Credit market volatility, which may widen credit spreads, benefits our investment purchases but may negatively affect the valuations of our in-force investment portfolio.

A volatile market environment may affect our ability to produce liability products that are profitable, have our desired risk profile, and are desirable to consumers. As a company with strong retirement, investment management and insurance capabilities, we expect that over the long term, market conditions resulting in higher Treasury yields and credit spreads will enhance the attractiveness of our portfolio of annuity products. We continue to monitor the behavior of our customers and other factors that react to market conditions, including annuitization rates and lapse rates, in order to best serve our customers and generate strong profitability to our shareholders.

Interest Rate Environment

As a retirement services company focused on issuing and reinsuring fixed annuities, we are affected by the monetary policy of the Federal Reserve in the United States as well as other central banks around the world. The Federal Reserve did not increase rates in March and also changed expectations of a further increase for the current year. Interest rates in the United States remain lower than historical levels.

Our investment portfolio consists predominantly of fixed maturity investments. See *–Consolidated Investment Portfolio*. If prevailing interest rates were to rise, we believe the yield on our new investment purchases may also rise and our investment income from floating rate investments would increase, while the value of our existing investments may decline. If prevailing interest rates were to decline, it is likely that the yield on our new investment purchases may decline and our investment income from floating rate investments would decrease, while the value of our existing investments may increase. We address interest rate risk through managing the duration of the liabilities we source with assets we acquire through asset liability management (ALM) modeling. As part of our investment strategy, we purchase floating rate investments, which we expect will perform well in a rising interest rate environment. Our investment portfolio includes \$20.2 billion of floating rate investments, or 18% of our total invested assets as of March 31, 2019. The percentage of floating rate investments increased from December 31, 2018 due to the redeployment of the Lincoln reinsurance investment portfolio, as well as block growth.

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If prevailing interest rates were to rise, we believe our products would be more attractive to consumers and our sales would likely increase. In periods of prolonged low interest rates, the net investment spread may be negatively impacted by reduced investment income to the extent that we are unable to adequately reduce policyholder crediting rates due to policyholder guarantees in the form of minimum crediting rates or otherwise due to market conditions. As of March 31, 2019, most of our products were fixed annuities with 24% of our FIAs at the minimum guarantees and 45% of our fixed rate annuities at the minimum crediting rates. As of March 31, 2019, minimum guarantees on all of our deferred annuities, including those with crediting rates already at their minimum guarantees, were, on average, 100 to 110 basis points below the crediting rates on such deferred annuities, allowing us room to reduce rates before reaching the minimum guarantees. Our remaining liabilities are associated with immediate annuities, pension risk transfer obligations, funding agreements or life contracts for which we have little to no discretionary ability to change the rates of interest payable to the respective policyholder. A significant majority of our products have crediting rates that we may reset annually upon renewal, following the expiration of the current guaranteed period. While we have the contractual ability to lower these crediting rates to the guaranteed minimum levels, our willingness to do so may be limited by competitive pressures.

See *Part I—Item 3. Quantitative and Qualitative Disclosures About Market Risks* to this report and *Part II—Item 7A. Quantitative and Qualitative Disclosures About Market Risks* in our 2018 Annual Report, which includes a discussion regarding interest rate and other significant risks and our strategies for managing these risks.

Demographics

Over the next four decades, the retirement-age population is expected to experience unprecedented growth. Technological advances and improvements in healthcare are projected to continue to contribute to increasing average life expectancy, and aging individuals must be prepared to fund retirement periods that will last longer than ever before. Further, many working households in the United States do not have adequate retirement savings. As a tool for addressing the unmet need for retirement planning, we believe that many Americans have begun to look to tax-efficient savings products with low-risk or guaranteed return features and potential equity market upside. Our tax-efficient savings products are well positioned to meet this increasing customer demand.

Competition

We operate in highly competitive markets. We face a variety of large and small industry participants, including diversified financial institutions and insurance and reinsurance companies. These companies compete in one form or another for the growing pool of retirement assets driven by a number of external factors such as the continued aging of the population and the reduction in safety nets provided by governments and private employers. In the markets in which we operate, scale and the ability to provide value-added services and build long-term relationships are important factors to compete effectively. We believe that our leading presence in the retirement market, diverse range of capabilities and broad distribution network uniquely position us to effectively serve consumers' increasing demand for retirement solutions, particularly in the FIA market.

According to LIMRA, total fixed annuity market sales in the United States were \$133.5 billion for the year ended December 31, 2018, a 26.8% increase over 2017. In the total fixed annuity market, for the year ended December 31, 2018 (the most recent period for which specific market share data is available), we were the 5th largest company based on sales of \$7.5 billion, translating to a 5.6% market share. For the year ended December 31, 2017, our market share was 5.1% with sales of \$5.4 billion.

FIAs have been one of the fastest growing annuity products, having grown from \$27.3 billion in sales for the year ended December 31, 2005 to \$69.6 billion in sales for the year ended December 31, 2018. According to LIMRA data, for the year ended December 31, 2018 (the most recent period for which specific market share data is available), we were the 2nd largest provider of FIAs based on sales of \$6.6 billion, and our market share for the same period was 9.4%. For the year ended December 31, 2017, we were the 2nd largest provider of FIAs based on sales of \$4.9 billion, translating to an 8.8% market share.

Recent Developments

In order to enhance our capital position and further support our stated business objectives, including continued profitable organic growth, acting as a solutions provider in the restructuring of the fixed annuity industry, maintaining capital for opportunistic investment, pursuing ratings upgrades and facilitating the repurchase of our common shares at attractive returns, we expect that ALRe would enter into a framework agreement (the Framework Agreement) with Athene Co-Invest Reinsurance Affiliate 1A Ltd. (ACRA). Under the Framework Agreement and related transaction documents, ACRA would receive capital commitments from ALRe and funds referred to as the Apollo/Athene Dedicated Investment Program (ADIP), which are managed by AGM. Entry into the Framework Agreement and related agreements are subject to ADIP's continuing private fundraising efforts and final approvals from a special committee of our board of directors, acting under authority granted by our board of directors.

For a period expiring approximately three years following the one-year anniversary of the first ADIP fund closing (subject to two one-year extension periods by ADIP, the Commitment Period), ACRA would have the right to participate (through itself or other legal entities formed pursuant to the Framework Agreement for purposes of entering into such transactions) in any legal entity acquisition transactions, third-party block reinsurance transactions and pension risk transfer transactions involving a sizable amount of liabilities, as well as certain flow reinsurance transactions with third-party counterparties (each, a Qualifying Transaction). ALRe would be permitted to offer ACRA the right to participate in other smaller acquisitions, block reinsurance and pension risk transfer transactions, and it is anticipated that all such transactions would be offered to ACRA for the foreseeable future. ALRe may also offer ACRA the right to participate in flow reinsurance transactions with existing

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third-party counterparties and reinsurance transactions involving new funding agreements from time to time, subject to certain conditions. ACRA’s election to participate in Qualifying Transactions would be determined by the Transaction Committee of ACRA, which would be a committee of the board of directors of ACRA comprised of our representatives and those of AGM. If ACRA elects not to participate in a Qualifying Transaction, we would have the right to pursue the Qualifying Transaction without ACRA. ACRA’s right to participate in Qualifying Transactions would be subject to capital requirements and other terms and conditions.

ACRA would be jointly owned (directly or indirectly) by ALRe and ADIP. It is expected that ALRe would hold shares representing 100% of the voting power and 33% of the economic interests in ACRA and that ADIP would hold non-voting shares representing the remaining 67% of the economic interests in ACRA. These economic ownership percentages have been sized based on our current and expected capital position during the Commitment Period, after considering the full array of our growth and capital objectives. ACRA is expected to be our consolidated subsidiary and managed consistent with our operating model and environment for all of our subsidiaries.

In connection with each transaction in which ACRA elects to participate (each, a Participating Transaction), subject to the applicable terms and conditions of the Framework Agreement and related transaction documents, ACRA would pay ALRe a fee (Wrap Fee) expected to be approximately 15 basis points per annum multiplied by the total reserves with respect to the assumed or acquired business, under a schedule where the Wrap Fee increases from 10 basis points as business assumed or acquired by ACRA increases.

In general, (a) on the 10th anniversary of the effective date of any Participating Transaction (other than a flow reinsurance transaction) or (b) on the 10th anniversary of the date on which reinsurance is terminated as to new business under any Participating Transaction that is a flow reinsurance transaction (which would occur no later than the end of the Commitment Period), ALRe or its applicable affiliate would have the right (Commutation Right) to terminate ACRA’s participation in such Participating Transaction based on a book value pricing mechanism and subject to ADIP achieving a minimum return with respect to such Participating Transaction. If ALRe does not exercise the Commutation Right with respect to a Participating Transaction, then ACRA’s obligation to pay the Wrap Fee in connection with such Participating Transaction would terminate, and, subject to certain exceptions (and the applicable terms and conditions of the Framework Agreement and related transaction documents), ALRe would be required to pay ACRA a fee calculated in the same manner as the Wrap Fee. In addition, if ACRA fails to satisfy minimum aggregate capital requirements, ALRe would have the right to recapture or assign to another of our subsidiaries a portion of the business retroceded to ACRA (and/or any of its insurance or reinsurance subsidiaries) to the extent necessary to cure such failure.

ALRe currently retrocedes, and following any sale by ALRe of an economic interest in ACRA to ADIP would continue to retrocede, to ACRA 100% of approximately \$8 billion of certain fixed deferred and fixed indexed annuities. In connection with future Participating Transactions, ACRA would draw from ADIP and from ALRe their respective share of the amount of capital necessary to consummate such Participating Transactions.

ACRA is expected to have a board of directors comprised of eleven directors (the ACRA Board). ALRe would be permitted to nominate seven directors to serve on the ACRA Board: (i) one would be the Chairman, (ii) one would be a representative of AGM, (iii) one would be our representative, (iv) two would be representatives of AGM or us and (v) two would be independent directors. ADIP would be permitted to nominate the other four directors to serve on the ACRA Board.

In addition, ACRA is expected to agree to pay a monthly fee to AAM for asset management services in an amount equal to the marginal base investment management fees and sub-advisory fees we expect to pay to AAM following the approval of such fees by our shareholders, as more fully described in “Proposal 9: Approval of the Twelfth Amended and Restated Bye-laws of the Company—IMA Termination Provisions” of our definitive proxy statement filed with the Securities Exchange Commission on April 22, 2019.

Key Operating and Non-GAAP Measures

In addition to our results presented in accordance with GAAP, we present certain financial information that includes non-GAAP measures. Management believes the use of these non-GAAP measures, together with the relevant GAAP measures, provides information that may enhance an investor’s understanding of our results of operations and the underlying profitability drivers of our business. The majority of these non-GAAP measures are intended to remove from the results of operations the impact of market volatility (other than with respect to alternative investments) as well as integration, restructuring and certain other expenses which are not part of our underlying profitability drivers, as such items fluctuate from period to period in a manner inconsistent with these drivers. These measures should be considered supplementary to our results in accordance with GAAP and should not be viewed as a substitute for the corresponding GAAP measures. See *Non-GAAP Measure Reconciliations* for the appropriate reconciliations to the corresponding GAAP measures.

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Adjusted Operating Income

Adjusted operating income is a non-GAAP measure used to evaluate our financial performance excluding market volatility and expenses related to integration, restructuring, stock compensation, and other expenses. Our adjusted operating income equals net income adjusted to eliminate the impact of the following (collectively, the “non-operating adjustments”):

- **Investment Gains (Losses), Net of Offsets**—Investment gains (losses), net of offsets, consist of the realized gains and losses on the sale of AFS securities, the change in fair value of reinsurance assets, unrealized gains and losses, impairments, and other investment gains and losses. Unrealized, impairments and other investment gains and losses are comprised of the fair value adjustments of trading securities (other than CLOs) and investments held under the fair value option, derivative gains and losses not hedging FIA index credits, and the net other-than-temporary impairment (OTTI) impacts recognized in operations net of the change in AmerUs Closed Block fair value reserve related to the corresponding change in fair value of investments and the change in unit-linked reserves related to the corresponding trading securities. Investment gains and losses are net of offsets related to DAC, DSI, and VOBA amortization and changes to guaranteed lifetime withdrawal benefit (GLWB) and guaranteed minimum death benefit (GMDB) reserves (together, GLWB and GMDB reserves represent rider reserves) as well as the market value adjustments (MVA) associated with surrenders or terminations of contracts.
- **Change in Fair Values of Derivatives and Embedded Derivatives – FIAs, Net of Offsets**—Impacts related to the fair value accounting for derivatives hedging the FIA index credits and the related embedded derivative liability fluctuations from period to period. The index reserve is measured at fair value for the current period and all periods beyond the current policyholder index term. However, the FIA hedging derivatives are purchased to hedge only the current index period. Upon policyholder renewal at the end of the period, new FIA hedging derivatives are purchased to align with the new term. The difference in duration between the FIA hedging derivatives and the index credit reserves creates a timing difference in earnings. This timing difference of the FIA hedging derivatives and index credit reserves is included as a non-operating adjustment, net of offsets related to DAC, DSI, and VOBA amortization and changes to rider reserves.

We primarily hedge with options that align with the index terms of our FIA products (typically 1–2 years). From an economic basis, we believe this is suitable because policyholder accounts are credited with index performance at the end of each index term. However, because the “value of an embedded derivative” in an FIA contract is longer-dated, there is a duration mismatch which may lead to mismatches for accounting purposes.

- **Integration, Restructuring, and Other Non-operating Expenses**—Integration, restructuring, and other non-operating expenses consist of restructuring and integration expenses related to acquisitions and block reinsurance costs as well as certain other expenses which are not related to our underlying profitability drivers or likely to re-occur in the foreseeable future.
- **Stock Compensation Expense**—Stock compensation expenses associated with our share incentive plans, excluding our long-term incentive plan, are not related to our underlying profitability drivers and fluctuate from time to time due to the structure of our plans.
- **Bargain Purchase Gain**—Bargain purchase gains associated with acquisitions are adjustments to net income as they are not related to our underlying profitability drivers.
- **Income Tax (Expense) Benefit – Non-operating**—The non-operating income tax expense represents the income tax effect of non-operating adjustments and is computed by applying the appropriate jurisdiction’s tax rate to the non-operating adjustments that are subject to income tax.

We consider these non-operating adjustments to be meaningful adjustments to net income for the reasons discussed in greater detail above. Accordingly, we believe using a measure which excludes the impact of these items is useful in analyzing our business performance and the trends in our results of operations. Together with net income, we believe adjusted operating income, provides a meaningful financial metric that helps investors understand our underlying results and profitability. Adjusted operating income should not be used as a substitute for net income.

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Adjusted ROE, Adjusted Operating ROE and Adjusted Net Income

Adjusted ROE, adjusted operating ROE and adjusted net income are non-GAAP measures used to evaluate our financial performance excluding the impacts of AOCI and the cumulative change in fair value of funds withheld and modco reinsurance assets, in each case net of DAC, DSI, rider reserve and tax offsets. Adjusted ROE is calculated as adjusted net income, divided by average adjusted shareholders' equity. Adjusted shareholders' equity is calculated as the ending shareholders' equity excluding AOCI and the cumulative change in fair value of funds withheld and modco reinsurance assets. Adjusted operating ROE is calculated as the adjusted operating income, divided by average adjusted shareholders' equity. Adjusted net income is calculated as net income excluding the change in fair value of funds withheld and modco reinsurance assets, net of DAC, DSI, rider reserve and tax offsets. These adjustments fluctuate period to period in a manner inconsistent with our underlying profitability drivers as the majority of such fluctuation is related to the market volatility of the unrealized gains and losses associated with our AFS securities. Except with respect to reinvestment activity relating to acquired blocks of businesses, we typically buy and hold AFS investments to maturity throughout the duration of market fluctuations, therefore, the period-over-period impacts in unrealized gains and losses are not necessarily indicative of current operating fundamentals or future performance. Accordingly, we believe using measures which exclude AOCI and the cumulative change in fair value of funds withheld and modco reinsurance assets are useful in analyzing trends in our operating results. To enhance the ability to analyze these measures across periods, interim periods are annualized. Adjusted ROE, adjusted operating ROE and adjusted net income should not be used as a substitute for ROE and net income. However, we believe the adjustments to equity are significant to gaining an understanding of our overall financial performance.

Adjusted Operating Earnings Per Share, Weighted Average Shares Outstanding – Adjusted Operating and Adjusted Book Value Per Share

Adjusted operating earnings per share, weighted average shares outstanding – adjusted operating and adjusted book value per share are non-GAAP measures used to evaluate our financial performance and financial condition. The non-GAAP measures adjust the number of shares included in the corresponding GAAP measures to reflect the conversion or settlement of all shares and other stock-based awards outstanding. We believe using these measures represents an economic view of our share counts and provides a simplified and consistent view of our outstanding shares. Adjusted operating earnings per share is calculated as the adjusted operating income, over the weighted average shares outstanding – adjusted operating. Adjusted book value per share is calculated as the adjusted shareholders' equity divided by the adjusted operating common shares outstanding. Our Class B common shares are economically equivalent to Class A common shares and can be converted to Class A common shares on a one-for-one basis at any time. Our Class M common shares are in the legal form of shares but economically function as options as they are convertible into Class A shares after vesting and payment of the conversion price. In calculating Class A diluted earnings per share on a GAAP basis, we are required to apply sequencing rules to determine the dilutive impacts, if any, of our Class B common shares, Class M common shares and any other stock-based awards. To the extent our Class B common shares, Class M common shares and/or any other stock-based awards are not dilutive, after considering the dilutive effects of the more dilutive securities in the sequence, they are excluded. Weighted average shares outstanding – adjusted operating and adjusted operating common shares outstanding assume conversion or settlement of all outstanding items that are able to be converted to or settled in Class A common shares, including the impacts of Class B common shares on a one-for-one basis, the impacts of all Class M common shares net of the conversion price and any other stock-based awards, but excluding any awards for which the exercise or conversion price exceeds the market value of our Class A common shares on the applicable measurement date. For certain historical periods, Class M shares were not included due to issuance restrictions which were contingent upon our IPO. Adjusted operating earnings per share, weighted average shares outstanding – adjusted operating and adjusted book value per share should not be used as a substitute for basic earnings per share – Class A common shares, basic weighted average shares outstanding – Class A or book value per share. However, we believe the adjustments to the shares and equity are significant to gaining an understanding of our overall results of operations and financial condition.

Adjusted Debt to Capital Ratio

Adjusted debt to capital ratio is a non-GAAP measure used to evaluate our capital structure excluding the impacts of AOCI and the cumulative change in fair value of funds withheld and modco reinsurance assets, net of DAC, DSI, rider reserve and tax offsets. Adjusted debt to capital ratio is calculated as total debt excluding consolidated variable interest entities (VIEs) divided by adjusted shareholders' equity. Adjusted debt to capital ratio should not be used as a substitute for the debt to capital ratio. However, we believe the adjustments to total debt and shareholders' equity are significant to gaining an understanding of our capitalization, debt utilization, and debt capacity.

Retirement Services Net Investment Spread, Investment Margin on Deferred Annuities and Operating Expenses

Net investment spread is a key measurement of the financial health of our Retirement Services profitability. Net investment spread measures our investment performance less the total cost of our liabilities. Net investment earned rate is a key measure of our investment performance, while cost of funds is a key measure of the cost of our policyholder benefits and liabilities. Investment margin on our deferred annuities measures our investment performance less the cost of crediting for our deferred annuities, which make up a significant portion of our reserve liabilities.

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Net investment earned rate is a non-GAAP measure we use to evaluate the performance of our invested assets that does not correspond to GAAP net investment income. Net investment earned rate is computed as the income from our invested assets divided by the average invested assets for the relevant period. To enhance the ability to analyze these measures across periods, interim periods are annualized. The adjustments to arrive at our net investment earned rate add alternative investment gains and losses, gains and losses related to trading securities for CLOs, net VIE impacts (revenues, expenses and noncontrolling interest) and the change in fair value of reinsurance assets. We include the income and assets supporting our change in fair value of reinsurance assets by evaluating the underlying investments of the funds withheld at interest receivables and we include the net investment income from those underlying investments which does not correspond to the GAAP presentation of change in fair value of reinsurance assets. We exclude the income and assets supporting business that we have exited through ceded reinsurance including funds withheld agreements. We believe the adjustments for reinsurance provide a net investment earned rate on the assets for which we have economic exposure.

Cost of funds includes liability costs related to cost of crediting on both deferred annuities and institutional products as well as other liability costs. Cost of funds is computed as the total liability costs divided by the average invested assets for the relevant period. To enhance the ability to analyze these measures across periods, interim periods are annualized.

Cost of crediting includes the costs for both deferred annuities and institutional products. Cost of crediting on deferred annuities is the interest credited to the policyholders on our fixed strategies as well as the option costs on the indexed annuity strategies. With respect to FIAs, the cost of providing index credits includes the expenses incurred to fund the annual index credits, and where applicable, minimum guaranteed interest credited. Cost of crediting on institutional products is comprised of PRT costs including interest credited, benefit payments and other reserve changes, net of premiums received when issued, as well as funding agreement costs including the interest payments and other reserve changes. Cost of crediting is computed as the cost of crediting for deferred annuities and institutional products divided by the average invested assets for the relevant periods. Cost of crediting on deferred annuities is computed as the interest credited on fixed strategies and option costs on indexed annuity strategies divided by the average account value of our deferred annuities. Cost of crediting on institutional products is computed as the PRT and funding agreement costs divided by the average institutional reserve liabilities. Our average invested assets, account values and institutional reserve liabilities are averaged over the number of quarters in the relevant period to obtain our associated cost of crediting for such period. To enhance the ability to analyze these measures across periods, interim periods are annualized.

Other liability costs include DAC, DSI and VOBA amortization, change in rider reserves, the cost of liabilities on products other than deferred annuities and institutional products, excise taxes, premiums, product charges and other revenues. We believe a measure like other liability costs is useful in analyzing the trends of our core business operations and profitability. While we believe other liability costs is a meaningful financial metric and enhances our understanding of the underlying profitability drivers of our business, it should not be used as a substitute for total benefits and expenses presented under GAAP.

Net investment earned rate, cost of funds, net investment spread and investment margin on deferred annuities are non-GAAP measures we use to evaluate the profitability of our business. We believe these metrics are useful in analyzing the trends of our business operations, profitability and pricing discipline. While we believe each of these metrics are meaningful financial metrics and enhance our understanding of the underlying profitability drivers of our business, they should not be used as a substitute for net investment income, interest sensitive contract benefits or total benefits and expenses presented under GAAP.

Operating expenses excludes integration, restructuring and other non-operating expenses, stock compensation expense, interest expense and policy acquisition expenses. We believe a measure like operating expenses is useful in analyzing the trends of our core business operations and profitability. While we believe operating expenses is a meaningful financial metric and enhances our understanding of the underlying profitability drivers of our business, it should not be used as a substitute for policy and other operating expenses presented under GAAP.

Invested Assets

In managing our business we analyze invested assets, which does not correspond to total investments, including investments in related parties, as disclosed in our consolidated financial statements and notes thereto. Invested assets represents the investments that directly back our reserve liabilities as well as surplus assets. Invested assets is used in the computation of net investment earned rate, which allows us to analyze the profitability of our investment portfolio. Invested assets includes (a) total investments on the consolidated balance sheets with AFS securities at cost or amortized cost, excluding derivatives, (b) cash and cash equivalents and restricted cash, (c) investments in related parties, (d) accrued investment income, (e) the consolidated VIE assets, liabilities and noncontrolling interest, (f) net investment payables and receivables and (g) policy loans ceded (which offset the direct policy loans in total investments). Invested assets also excludes assets associated with funds withheld liabilities related to business exited through reinsurance agreements and derivative collateral (offsetting the related cash positions). We include the underlying investments supporting our assumed funds withheld and modco agreements in our invested assets calculation in order to match the assets with the income received. We believe the adjustments for reinsurance provide a view of the assets for which we have economic exposure. Our invested assets are averaged over the number of quarters in the relevant period to compute our net investment earned rate for such period.

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

In managing our business we also analyze reserve liabilities, which does not correspond to total liabilities as disclosed in our consolidated financial statements and notes thereto. Reserve liabilities represents our policyholder liability obligations net of reinsurance and is used to analyze the costs of our liabilities. Reserve liabilities includes (a) the interest sensitive contract liabilities, (b) future policy benefits, (c) dividends payable to policyholders, and (d) other policy claims and benefits, offset by reinsurance recoverable, excluding policy loans ceded. Reserve liabilities is net of the ceded liabilities to third-party reinsurers as the costs of the liabilities are passed to such reinsurers and therefore we have no net economic exposure to such liabilities, assuming our reinsurance counterparties perform under our agreements. The majority of our ceded reinsurance is a result of reinsuring large blocks of life business following acquisitions. For such transactions, GAAP requires the ceded liabilities and related reinsurance recoverables to continue to be recorded in our consolidated financial statements despite the transfer of economic risk to the counterparty in connection with the reinsurance transaction.

Sales

Sales statistics do not correspond to revenues under GAAP, but are used as relevant measures to understand our business performance as it relates to deposits generated during a specific period of time. Our sales statistics include deposits for fixed rate annuities and FIAs and align with the LIMRA definition of all money paid into an individual annuity, including money paid into new contracts with initial purchase occurring in the specified period and existing contracts with initial purchase occurring prior to the specified period (excluding internal transfers).

Consolidated Results of Operations

The following summarizes the consolidated results of operations:

| <i>(In millions, except percentages)</i> | Three months ended March 31, | |
|--|------------------------------|---------------|
| | 2019 | 2018 |
| Revenues | \$ 4,961 | \$ 1,011 |
| Benefits and expenses | 4,221 | 689 |
| Income before income taxes | 740 | 322 |
| Income tax expense | 32 | 45 |
| Net income | \$ 708 | \$ 277 |
| ROE | 30.8% | 12.4% |
| Adjusted ROE | 14.5% | 17.1% |

Three Months Ended March 31, 2019 Compared to the Three Months Ended March 31, 2018

In this section, references to 2019 refer to the three months ended March 31, 2019 and references to 2018 refer to the three months ended March 31, 2018.

Net Income

Net income increased by \$431 million, or 156%, to \$708 million in 2019 from \$277 million in 2018. ROE increased to 30.8% from 12.4% in 2018, and adjusted ROE decreased to 14.5% from 17.1% in 2018. The increase in net income was driven by a \$4.0 billion increase in revenues, partially offset by an increase of \$3.5 billion in benefits and expenses.

Revenues

Revenues increased by \$4.0 billion to \$5.0 billion in 2019 from \$1.0 billion in 2018. The increase was driven by an increase in investment related gains and losses, increase in premiums, higher net investment income and higher product charges.

Investment related gains and losses increased by \$2.0 billion to \$1.8 billion in 2019 from \$(236) million in the prior year, primarily due to the change in fair value of FIA hedging derivatives, the change in fair value of reinsurance assets and a favorable change in fair value of trading securities. The change in fair value of FIA hedging derivatives increased \$991 million driven by the strong performance of the indices upon which our call options are based. The majority of our call options are based on the S&P 500 index which increased 13.1% in 2019, compared to a decrease of 1.2% in 2018. The change in fair value of reinsurance assets increased by \$862 million primarily driven by the change in the value of the underlying assets related to the decrease in U.S. Treasury rates and credit spreads tightening. The favorable change in fair value of trading securities of \$138 million was comprised primarily by an increase in AmerUs Closed Block assets of \$106 million related to higher gains resulting from a decrease in U.S. Treasury rates and credit spreads tightening compared to prior year.

Premiums increased by \$1.7 billion to \$2.0 billion in 2019 from \$278 million in the prior period, driven by higher PRT premiums and an increase in premiums from flow reinsurance.

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

Net investment income increased by \$211 million to \$1.1 billion in 2019 from \$855 million in 2018, primarily driven by earnings from growth in our investment portfolio attributed to the Voya and Lincoln reinsurance transactions, as well as a strong increase in deposits over the prior twelve months. Additionally, net investment income increased due to higher floating rate investment income of \$17 million related to higher short-term interest rates.

Product charges increased by \$29 million to \$125 million in 2019 from \$96 million in 2018, primarily driven by growth in the block of business and charges related to the addition of the Voya reinsurance liabilities.

Benefits and Expenses

Benefits and expenses increased by \$3.5 billion to \$4.2 billion in 2019 from \$689 million in 2018. The increase was driven by an increase in future policy benefits, an increase in interest sensitive contract benefits, and an increase in amortization of DAC and VOBA.

Future policy and other policy benefits increased by \$1.9 billion to \$2.3 billion in 2019 from \$401 million in 2018, primarily attributable to higher PRT obligations, an increase in the change in AmerUs Closed Block fair value liability, and higher benefits for payout annuities with life contingencies due to the Voya reinsurance transaction. The unfavorable change in the AmerUs Closed Block fair value liability of \$124 million was primarily driven by the increase in unrealized gains on the underlying investments related to the change in U.S. Treasury rates compared to prior year and credit spreads tightening.

Interest sensitive contract benefits increased by \$1.5 billion to \$1.5 billion in 2019 from \$31 million in 2018, driven by an increase in FIA fair value embedded derivatives of \$1.4 billion and growth in the block of business. The change in the FIA fair value embedded derivatives was due to the performance of the equity indices to which our FIA policies are linked, primarily the S&P 500 index, which experienced a 13.1% increase in 2019, compared to a decrease of 1.2% in 2018, as well as an unfavorable change in discount rates used in our embedded derivative calculations as the current quarter experienced a decrease in discount rates compared to 2018, which experienced an increase in discount rates.

DAC, DSI, and VOBA amortization increased by \$149 million to \$231 million in 2019 from \$82 million in 2018, primarily due to the change in investment related gains and losses as a result of a favorable change in reinsurance embedded derivatives, partially offset by the unfavorable net change in FIA derivatives.

Taxes

Income tax expense decreased by \$13 million to \$32 million in 2019 from \$45 million in 2018. The income tax expense for 2019 reflects the implementation of additional reinsurance arrangements in the third quarter of 2018, which are common in the insurance industry.

Our effective tax rate in the first quarter of 2019 was 4% and 14% in 2018. Our effective tax rates may vary period to period depending upon the relationship of income and loss subject to tax compared to consolidated income and loss before income taxes.

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Results of Operations by Segment

The following summarizes our adjusted operating income by segment:

| | Three months ended March 31, | |
|--|------------------------------|--------|
| | 2019 | 2018 |
| <i>(In millions, except percentages)</i> | | |
| Net income | \$ 708 | \$ 277 |
| Non-operating adjustments | | |
| Realized gains (losses) on sale of AFS securities | 12 | 17 |
| Unrealized, impairments and other investment gains (losses) | 29 | 6 |
| Change in fair value of reinsurance assets | 616 | (78) |
| Offsets to investment gains (losses) | (199) | 22 |
| Investment gains (losses), net of offsets | 458 | (33) |
| Change in fair values of derivatives and embedded derivatives – FIAs, net of offsets | (27) | 86 |
| Integration, restructuring and other non-operating expenses | (1) | (8) |
| Stock compensation expense | (3) | (3) |
| Income tax (expense) benefit – non-operating | (6) | (6) |
| Less: Total non-operating adjustments | 421 | 36 |
| Adjusted operating income | \$ 287 | \$ 241 |
| Adjusted operating income (loss) by segment | | |
| Retirement Services | \$ 286 | \$ 239 |
| Corporate and Other | 1 | 2 |
| Adjusted operating income | \$ 287 | \$ 241 |
| Adjusted operating ROE | 12.8% | 12.4% |
| Retirement Services adjusted operating ROE | 14.4% | 17.8% |

Three Months Ended March 31, 2019 Compared to the Three Months Ended March 31, 2018

Adjusted operating income increased by \$46 million, or 19%, to \$287 million in 2019 from \$241 million in 2018. Adjusted operating ROE was 12.8%, up from 12.4% in 2018. The increase in adjusted operating income was primarily driven by an increase in our Retirement Services segment of \$47 million, while Corporate and Other decreased \$1 million.

Our consolidated net investment earned rate was 4.28% in 2019, a decrease from 4.60% in 2018, primarily due to the lower alternative investment performance as well as slightly lower fixed and other investment performance. Alternative net investment earned rate was 4.36% in 2019, a decrease from 10.38% in 2018, driven by the lower credit fund income, partially offset by an increase in market value of public equity positions in OneMain Holdings, Inc. (OneMain) and Caesars Entertainment Corporation (Caesars). Fixed and other net investment earned rate was 4.28% in 2019, a decrease from 4.32% in 2018, driven by cash drags from significant asset growth in both the fourth quarter of 2018 and first quarter of 2019, and lower returns on assets from the Voya and Lincoln reinsurance transactions, partially offset by higher floating rate investment income in 2019.

Non-operating Adjustments

Non-operating adjustments increased by \$385 million to \$421 million in 2019 from \$36 million in 2018. The increase in non-operating adjustments was primarily driven by favorable change in fair value of reinsurance assets, partially offset by unfavorable FIA fair value embedded derivatives. Change in fair value of reinsurance assets impacts were favorable by \$694 million due to a decrease in U.S. Treasury rates, credit spreads tightening, and growth in the reinsurance block from the Voya and Lincoln transactions. FIA fair value embedded derivatives were unfavorable by \$113 million due to an unfavorable change in discount rates used in our embedded derivative calculations as the current quarter experienced a decrease in discount rates compared to 2018, partially offset by the performance of the equity indices to which our FIA policies are linked, primarily the S&P 500 index, which experienced a 13.1% increase in 2019, compared to a decrease of 1.2% in 2018.

Retirement Services

Retirement Services is comprised of our United States and Bermuda operations which issue and reinsure retirement savings products and institutional products. Retirement Services has retail operations, which provide annuity retirement solutions to our policyholders. Retirement Services also has reinsurance operations, which reinsure FIAs, MYGAs, traditional one year guarantee fixed deferred annuities, immediate annuities and institutional products from our reinsurance partners. In addition, our institutional operations, including funding agreements and PRT obligations, are included in our Retirement Services segment.

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Three Months Ended March 31, 2019 Compared to the Three Months Ended March 31, 2018

Adjusted Operating Income

Adjusted operating income increased by \$47 million, or 20%, to \$286 million in 2019, from \$239 million in 2018. Adjusted operating ROE was 14.4%, down from 17.8% in the prior period. The increase in adjusted operating income was driven by \$37.6 billion of growth in our invested assets delivering net investment spread accretion over prior year primarily attributed to inorganic deposits from the Voya and Lincoln reinsurance transactions as well as strong organic deposits over the prior twelve months. Net investment earnings also benefited from higher floating rate income of \$17 million related to higher short-term interest rates. Cost of funds benefited from lower rider reserves and DAC amortization related to equity market performance and lower than expected gross profits, partially offset by actuarial experience on certain policies. Alternative investment income decreased primarily as a result of a decrease in one of our credit funds related to unrealized gains recognized in 2018. Additionally, credit fund income was lower due to credit spreads widening in Q4 2018 impacting alternative investments reported on a lag.

Net Investment Spread

| | Three months ended March 31, | |
|----------------------------|------------------------------|-------|
| | 2019 | 2018 |
| Net investment earned rate | 4.21% | 4.63% |
| Cost of funds | 2.85% | 2.84% |
| Net investment spread | 1.36% | 1.79% |

Net investment spread, which measures the spread on our investment performance less the total cost of our liabilities, decreased 43 basis points to 1.36% in 2019 from 1.79% in 2018. Net investment earned rate decreased due to a decline in our alternative net investment earned rate as well as a slight decline in the fixed and other net investment earned rate. The alternative net investments earned rate decreased in 2019 to 2.13% from 12.34% in 2018, driven by lower credit fund income. The fixed and other net investment earned rate decreased in 2019, to 4.28% from 4.32% in 2018 primarily attributed to cash drag from significant asset growth in both the fourth quarter of 2018 and first quarter of 2019, and lower returns on the assets from the Voya and Lincoln reinsurance transactions, partially offset by higher floating rate investment income.

Cost of funds increased by one basis point to 2.85% in 2019, from 2.84% in 2018, primarily driven by growth in our institutional channel at a higher rate and actuarial experience on certain policies, partially offset by lower rider reserves and DAC amortization related to equity market performance and lower than expected gross profits. We continue to focus on pricing discipline, managing interest rates credited to policyholders and managing the cost of options to fund the annual index credits on our FIA products.

Investment Margin on Deferred Annuities

| | Three months ended March 31, | |
|---|------------------------------|-------|
| | 2019 | 2018 |
| Net investment earned rate | 4.21% | 4.63% |
| Cost of crediting on deferred annuities | 1.98% | 1.87% |
| Investment margin on deferred annuities | 2.23% | 2.76% |

Investment margin on deferred annuities, which measures our investment performance less the cost of crediting for our deferred annuities, decreased by 53 basis points to 2.23% in 2019, from 2.76% in 2018, primarily driven by a decrease in net investment earned rate as well as an increase in cost of crediting on deferred annuities. Cost of crediting on deferred annuities increased 11 basis points primarily due to higher option costs as a result of higher volatility and short-term interest rates and a higher cost of crediting rate on the Voya reinsurance liabilities.

Corporate and Other

Corporate and Other includes certain other operations related to our corporate activities. Included in Corporate and Other are corporate allocated expenses, merger and acquisition costs, debt costs, certain integration and restructuring costs, certain stock-based compensation and intersegment eliminations. In addition, we also hold capital in excess of the level of capital we hold in Retirement Services to support our operating strategy

Adjusted Operating Income

Adjusted operating income decreased by \$1 million to \$1 million in 2019, from \$2 million in 2018. The decrease in adjusted operating income was mainly driven by lower earnings from a decrease in excess capital due to the deployment into inorganic opportunities and share buybacks, offset by the increase in market value of public equity positions in two of our funds.

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Consolidated Investment Portfolio

We had consolidated investments, including related parties, of \$115.7 billion and \$107.6 billion as of March 31, 2019 and December 31, 2018, respectively. Our investment strategy seeks to achieve sustainable risk-adjusted returns through the disciplined management of our investment portfolio against our long-duration liabilities, coupled with the diversification of risk. The investment strategies utilized by our investment managers focus primarily on a buy and hold asset allocation strategy that may be adjusted periodically in response to changing market conditions and the nature of our liability profile. Substantially all of our investment portfolio is managed by AAM, an indirect subsidiary of Apollo. AAM provides a full suite of services for our investment portfolio, including direct investment management, asset allocation, mergers and acquisition asset diligence, and certain operational support services, including investment compliance, tax, legal and risk management support. Our relationship with AAM and Apollo allows us to take advantage of our generally illiquid liability profile by identifying investment opportunities with an emphasis on earning incremental yield by taking liquidity and complexity risk rather than assuming solely credit risk. The deep experience of the AAM investment team and Apollo’s credit portfolio managers assists us in sourcing and underwriting complex asset classes. AAM has selected a diverse array of corporate bonds and more structured, but highly rated asset classes. We also maintain holdings in floating rate and less rate-sensitive instruments, including CLOs, non-agency RMBS and various types of structured products. In addition to our fixed income portfolio, we opportunistically allocate 5–10% of our portfolio to alternative investments where we primarily focus on fixed income-like, cash flow-based investments.

Our invested assets, which are those that directly back our reserve liabilities as well as surplus assets (as previously discussed in *Key Operating and Non-GAAP Measures*), were \$113.8 billion and \$111.0 billion as of March 31, 2019 and December 31, 2018, respectively. AAM managed, directly and indirectly, substantially all of our invested assets as of March 31, 2019, comprising a diversified portfolio of fixed maturity and other securities. AAM’s knowledge of our funding structure and regulatory requirements allows it to design customized strategies and investments for our portfolio.

Our asset portfolio is managed within the limits and constraints set forth in our Investment and Credit Risk Policy. Under this policy, we set limits on investments in our portfolio by asset class, such as corporate bonds, emerging markets securities, municipal bonds, non-agency RMBS, CMBS, CLOs, commercial mortgage whole loans and mezzanine loans and investment funds. We also set credit risk limits for exposure to a single issuer that vary based on the issuer’s ratings. In addition, our investment portfolio is constrained by its scenario-based capital ratio limit and its stressed liquidity limit.

The following table presents the carrying values of our total investments and investments in related parties:

| | March 31, 2019 | | December 31, 2018 | |
|--|-------------------|------------------|-------------------|------------------|
| | Carrying Value | Percent of Total | Carrying Value | Percent of Total |
| <i>(In millions, except percentages)</i> | | | | |
| AFS securities, at fair value | \$ 64,655 | 55.9% | \$ 59,265 | 55.1% |
| Trading securities, at fair value | 2,256 | 2.0% | 1,949 | 1.8% |
| Equity securities, at fair value | 252 | 0.2% | 216 | 0.2% |
| Mortgage loans, net of allowances | 11,042 | 9.5% | 10,340 | 9.6% |
| Investment funds | 683 | 0.6% | 703 | 0.6% |
| Policy loans | 487 | 0.4% | 488 | 0.4% |
| Funds withheld at interest | 15,241 | 13.2% | 15,023 | 14.0% |
| Derivative assets | 1,920 | 1.7% | 1,043 | 1.0% |
| Short-term investments, at fair value | 155 | 0.1% | 191 | 0.2% |
| Other investments | 121 | 0.1% | 122 | 0.1% |
| Total investments | 96,812 | 83.7% | 89,340 | 83.0% |
| Investment in related parties | | | | |
| AFS securities, at fair value | 1,684 | 1.5% | 1,437 | 1.3% |
| Trading securities, at fair value | 239 | 0.2% | 249 | 0.2% |
| Equity securities, at fair value | 301 | 0.3% | 120 | 0.1% |
| Mortgage loans | 291 | 0.2% | 291 | 0.3% |
| Investment funds | 2,290 | 2.0% | 2,232 | 2.1% |
| Funds withheld at interest | 13,683 | 11.8% | 13,577 | 12.6% |
| Other investments | 387 | 0.3% | 386 | 0.4% |
| Total related party investments | 18,875 | 16.3% | 18,292 | 17.0% |
| Total investments including related party | \$ 115,687 | 100.0% | \$ 107,632 | 100.0% |

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The increase in our total investments, including related party, as of March 31, 2019 of \$8.1 billion compared to December 31, 2018 was mainly driven by growth from organic deposits of \$4.8 billion less liability outflows of \$2.8 billion, an increase in unrealized gains and losses on AFS securities of \$2.0 billion attributed to the decrease in U.S. Treasury rates and credit spreads tightening, an increase in derivatives assets due to favorable equity market performance and reinvestment of earnings.

Our investment portfolio consists largely of high quality fixed maturity securities, loans and short-term investments, as well as additional opportunistic holdings in investment funds and other instruments, including a small amount of equity holdings. Fixed maturity securities and loans include publicly issued corporate bonds, government and other sovereign bonds, privately placed corporate bonds and loans, mortgage loans, CMBS, RMBS, CLOs, and ABS.

While the substantial majority of our investment portfolio has been allocated to corporate bonds and structured credit products, a key component of our investment strategy is the opportunistic acquisition of investment funds with attractive risk and return profiles. Our investment fund portfolio consists of funds that employ various strategies including real estate and other real asset funds, credit funds and private equity funds. We have a strong preference for assets that have some or all of the following characteristics, among others: (1) investments that constitute a direct investment or an investment in a fund with a high degree of co-investment; (2) investments with credit- or debt-like characteristics (for example, a stipulated maturity and par value), or alternatively, investments with reduced volatility when compared to pure equity; or (3) investments that have less downside risk. We acquired certain investment funds from AAA Guarantor – Athene, L.P. (AAA Investor) (which are classified as private equity investments and consolidated VIEs) as a one-time capital contribution by our largest shareholder in advance of the Aviva USA acquisition. With respect to investment fund portfolios that we received in these transactions, we actively reinvest these investments in our preferred credit-oriented strategies over time as we liquidate these holdings.

We hold derivatives for economic hedging purposes to reduce our exposure to the cash flow variability of assets and liabilities, equity market risk, interest rate risk, credit risk, and to a lesser extent, foreign exchange risk. Our primary use of derivative instruments relates to providing the income needed to fund the annual indexed credits on our FIA products. We primarily use fixed indexed options to economically hedge FIA products that guarantee the return of principal to the policyholder and credit interest based on a percentage of the gain in a specific market index.

With respect to derivative positions, we transact with highly rated counterparties, and do not expect the counterparties to fail to meet their obligations under the contracts. We generally use industry standard agreements and annexes with bilateral collateral provisions to further reduce counterparty credit exposure.

AFS Securities

We invest with the intent to hold investments to maturity. In selecting investments we attempt to source investments that match our future cash flow needs. However, we may sell any of our investments in advance of maturity in order to timely satisfy our liabilities as they become due or in order to respond to a change in the credit profile or other characteristics of the particular investment.

AFS securities are carried at fair value on our condensed consolidated balance sheets. Changes in fair value of our AFS securities, net of related DAC, DSI and VOBA amortization and the change in rider reserves, are charged or credited to other comprehensive income, net of tax. Declines in fair value that are other than temporary are recorded as realized losses in the condensed consolidated statements of income, net of any applicable non-credit component of the loss, which is recorded as an adjustment to other comprehensive income.

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The distribution of our AFS securities, including related parties, by type is as follows:

| <i>(In millions, except percentages)</i> | March 31, 2019 | | | | |
|---|------------------|------------------|-------------------|------------------|------------------|
| | Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value | Percent of Total |
| AFS securities | | | | | |
| U.S. government and agencies | \$ 48 | \$ 2 | \$ — | \$ 50 | 0.1% |
| U.S. state, municipal and political subdivisions | 1,209 | 161 | (5) | 1,365 | 2.1% |
| Foreign governments | 262 | 9 | — | 271 | 0.4% |
| Corporate | 40,727 | 1,218 | (534) | 41,411 | 62.4% |
| CLO | 6,320 | 6 | (184) | 6,142 | 9.2% |
| ABS | 5,023 | 85 | (33) | 5,075 | 7.7% |
| CMBS | 2,394 | 50 | (20) | 2,424 | 3.7% |
| RMBS | 7,457 | 480 | (20) | 7,917 | 11.9% |
| Total AFS securities | 63,440 | 2,011 | (796) | 64,655 | 97.5% |
| AFS securities – related party | | | | | |
| Corporate | 3 | — | — | 3 | 0.0% |
| CLO | 654 | — | (16) | 638 | 0.9% |
| ABS | 1,039 | 11 | (7) | 1,043 | 1.6% |
| Total AFS securities – related party | 1,696 | 11 | (23) | 1,684 | 2.5% |
| Total AFS securities including related party | \$ 65,136 | \$ 2,022 | \$ (819) | \$ 66,339 | 100.0% |

| <i>(In millions, except percentages)</i> | December 31, 2018 | | | | |
|---|------------------------|------------------|-------------------|------------------|------------------|
| | Cost or Amortized Cost | Unrealized Gains | Unrealized Losses | Fair Value | Percent of Total |
| AFS securities | | | | | |
| U.S. government and agencies | \$ 57 | \$ — | \$ — | \$ 57 | 0.1% |
| U.S. state, municipal and political subdivisions | 1,183 | 117 | (7) | 1,293 | 2.1% |
| Foreign governments | 162 | 2 | (3) | 161 | 0.3% |
| Corporate | 38,018 | 394 | (1,315) | 37,097 | 61.1% |
| CLO | 5,658 | 2 | (299) | 5,361 | 8.8% |
| ABS | 4,915 | 53 | (48) | 4,920 | 8.1% |
| CMBS | 2,390 | 27 | (60) | 2,357 | 3.9% |
| RMBS | 7,642 | 413 | (36) | 8,019 | 13.2% |
| Total AFS securities | 60,025 | 1,008 | (1,768) | 59,265 | 97.6% |
| AFS securities – related party | | | | | |
| CLO | 587 | — | (25) | 562 | 0.9% |
| ABS | 875 | 4 | (4) | 875 | 1.5% |
| Total AFS securities – related party | 1,462 | 4 | (29) | 1,437 | 2.4% |
| Total AFS securities including related party | \$ 61,487 | \$ 1,012 | \$ (1,797) | \$ 60,702 | 100.0% |

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We maintain a diversified AFS portfolio of corporate fixed maturity securities across industries and issuers, and a diversified portfolio of structured securities. The composition of our AFS securities, including related parties, is as follows:

| | March 31, 2019 | | December 31, 2018 | |
|---|------------------|------------------|-------------------|------------------|
| | Fair Value | Percent of Total | Fair Value | Percent of Total |
| <i>(In millions, except percentages)</i> | | | | |
| Corporate | | | | |
| Industrial other ¹ | \$ 13,235 | 19.9% | \$ 11,706 | 19.3% |
| Financial | 13,020 | 19.6% | 11,809 | 19.5% |
| Utilities | 10,218 | 15.4% | 9,055 | 14.9% |
| Communication | 2,518 | 3.8% | 2,313 | 3.8% |
| Transportation | 2,423 | 3.7% | 2,214 | 3.6% |
| Total corporate | 41,414 | 62.4% | 37,097 | 61.1% |
| Other government-related securities | | | | |
| U.S. state, municipal and political subdivisions | 1,365 | 2.1% | 1,293 | 2.1% |
| Foreign governments | 271 | 0.4% | 161 | 0.3% |
| U.S. government and agencies | 50 | 0.1% | 57 | 0.1% |
| Total non-structured securities | 43,100 | 65.0% | 38,608 | 63.6% |
| Structured securities | | | | |
| CLO | 6,780 | 10.1% | 5,923 | 9.8% |
| ABS | 6,118 | 9.3% | 5,795 | 9.5% |
| CMBS | 2,424 | 3.7% | 2,357 | 3.9% |
| RMBS | | | | |
| Agency | 60 | 0.1% | 59 | 0.1% |
| Non-agency | 7,857 | 11.8% | 7,960 | 13.1% |
| Total structured securities | 23,239 | 35.0% | 22,094 | 36.4% |
| Total AFS securities including related party | \$ 66,339 | 100.0% | \$ 60,702 | 100.0% |

¹ Includes securities within various industry segments including capital goods, basic industry, consumer cyclical, consumer non-cyclical, industrial and technology.

The fair value of our AFS securities, including related parties, was \$66.3 billion and \$60.7 billion as of March 31, 2019 and December 31, 2018, respectively. The increase was mainly driven by the change in unrealized gains and losses on AFS securities as well as strong growth in deposits over liability outflows. Unrealized gains and losses on AFS securities increased attributed to the decrease in U.S. Treasury rates and credit spreads tightening.

The Securities Valuation Office (SVO) of the NAIC is responsible for the credit quality assessment and valuation of securities owned by state regulated insurance companies. Insurance companies report ownership of securities to the SVO when such securities are eligible for filing on the relevant schedule of the NAIC Financial Statement Blank. The SVO conducts credit analysis on these securities for the purpose of assigning an NAIC designation and/or unit price. Subject to the important exceptions discussed below, if a security has been rated by a Nationally Recognized Statistical Rating Organization (NRSRO), the SVO utilizes that rating and assigns an NAIC designation based upon the following system (General Ratings Process):

| NAIC designation | NRSRO equivalent rating |
|------------------|-------------------------|
| 1 | AAA/AA/A |
| 2 | BBB |
| 3 | BB |
| 4 | B |
| 5 | CCC |
| 6 | CC and lower |

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The NRSRO ratings methodology is focused on the likelihood of recovery of all contractual payments, including principal at par, regardless of an investor’s carrying value. In effect, the NRSRO rating assumes that the holder is the original purchaser at par. In contrast, the SVO’s loan-backed and structured securities (LBaSS) methodology is focused on determining the risk associated with the recovery of the amortized cost of each security. Because the NAIC’s methodology explicitly considers amortized cost and the likelihood of recovery of such amount, we view the NAIC’s methodology as the most appropriate way to view our fixed maturity portfolio for purposes of evaluating credit quality since a large portion of our holdings were purchased and are carried at significant discounts to par.

The SVO has developed a ratings process and provides instruction on both modeled and non-modeled LBaSS. For modeled LBaSS, the process is specific to the non-agency RMBS and CMBS asset classes. In order to establish ratings at the individual security level, the SVO obtains loan-level analysis of each RMBS and CMBS using a selected vendor’s proprietary financial model. The SVO ensures that the vendor has extensive internal quality-control processes in place and the SVO conducts its own quality-control checks of the selected vendor’s valuation process. The SVO has retained the services of Blackrock, Inc. (Blackrock) to model non-agency RMBS and CMBS owned by U.S. insurers for all years presented herein. Blackrock provides five prices (breakpoints), based on each U.S. insurer’s statutory book value price, to utilize in determining the NAIC designation for each modeled LBaSS.

Prior to January 1, 2019, certain non-modeled LBaSS (including CLOs and ABS, other than RMBS and CMBS) underwent ratings evaluation by an NAIC credit rating provider (CRP). Such securities were subject to an exemption from the General Ratings Process (MFE Exemption) and received NAIC designations through a prescribed process (MFE Process). Pursuant to the MFE Process, CRP ratings were translated to an NAIC designation equivalent. If the translation process resulted in an NAIC designation equivalent of NAIC 1 or NAIC 6, then such designation was considered the final NAIC designation. If the translation process resulted in an NAIC designation equivalent of NAIC 2 through NAIC 5, then the NAIC designation equivalent was used to select the appropriate breakpoint from a pricing matrix and such breakpoint was applied to the amortized cost or fair value (in each instance, as a percentage of par), as applicable, to determine the final NAIC designation. Effective January 1, 2019, the MFE Exemption was eliminated, and as a result, NAIC designations for all non-modeled LBaSS are thereafter determined through the General Ratings Process.

The NAIC designation determines the associated level of risk-based capital (RBC) that an insurer is required to hold for modeled LBaSS owned by the insurer. In general, under the modeled LBaSS process and, prior to January 1, 2019, the non-modeled LBaSS processes, the larger the discount to par value at the time of determination, the higher the NAIC designation the LBaSS will have.

A summary of our AFS securities, including related parties, by NAIC designation is as follows:

| | March 31, 2019 | | | December 31, 2018 | | |
|---|------------------|------------------|------------------|-------------------|------------------|------------------|
| | Amortized Cost | Fair Value | Percent of Total | Amortized Cost | Fair Value | Percent of Total |
| <i>(In millions, except percentages)</i> | | | | | | |
| NAIC designation | | | | | | |
| 1 | \$ 32,944 | \$ 34,021 | 51.3% | \$ 31,106 | \$ 31,311 | 51.6% |
| 2 | 28,457 | 28,659 | 43.2% | 26,682 | 25,871 | 42.6% |
| Total investment grade | 61,401 | 62,680 | 94.5% | 57,788 | 57,182 | 94.2% |
| 3 | 2,757 | 2,711 | 4.1% | 2,866 | 2,746 | 4.5% |
| 4 | 720 | 689 | 1.0% | 591 | 533 | 0.9% |
| 5 | 250 | 248 | 0.4% | 235 | 232 | 0.4% |
| 6 | 8 | 11 | 0.0% | 7 | 9 | 0.0% |
| Total below investment grade | 3,735 | 3,659 | 5.5% | 3,699 | 3,520 | 5.8% |
| Total AFS securities including related party | \$ 65,136 | \$ 66,339 | 100.0% | \$ 61,487 | \$ 60,702 | 100.0% |

Substantially all of our AFS portfolio, 94.5% and 94.2% as of March 31, 2019 and December 31, 2018, respectively, was invested in assets considered investment grade with a NAIC designation of 1 or 2.

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A summary of our AFS securities, including related parties, by NRSRO ratings is set forth below:

| <i>(In millions, except percentages)</i> | March 31, 2019 | | December 31, 2018 | |
|---|------------------|------------------|-------------------|------------------|
| | Fair Value | Percent of Total | Fair Value | Percent of Total |
| NRSRO rating agency designation | | | | |
| AAA/AA/A | \$ 22,804 | 34.3% | \$ 19,690 | 32.4% |
| BBB | 25,773 | 38.9% | 23,326 | 38.4% |
| Non-rated ¹ | 9,723 | 14.7% | 9,624 | 15.9% |
| Total investment grade | 58,300 | 87.9% | 52,640 | 86.7% |
| BB | 2,729 | 4.1% | 2,670 | 4.4% |
| B | 888 | 1.3% | 875 | 1.4% |
| CCC | 2,253 | 3.4% | 2,340 | 3.9% |
| CC and lower | 1,320 | 2.0% | 1,296 | 2.1% |
| Non-rated ¹ | 849 | 1.3% | 881 | 1.5% |
| Total below investment grade | 8,039 | 12.1% | 8,062 | 13.3% |
| Total AFS securities including related party | \$ 66,339 | 100.0% | \$ 60,702 | 100.0% |

¹ Securities denoted as non-rated by the NRSRO were classified as investment or non-investment grade according to the security’s respective NAIC designation.

Consistent with the NAIC Process and Procedures Manual, an NRSRO rating was assigned based on the following criteria: (a) the equivalent S&P rating when the security is rated by one NRSRO; (b) the equivalent S&P rating of the lowest NRSRO when the security is rated by two NRSROs; and (c) the equivalent S&P rating of the second lowest NRSRO when the security is rated by three or more NRSROs. If the lowest two NRSRO ratings are equal, then such rating will be the assigned rating. NRSRO ratings available for the periods presented were S&P, Fitch, Moody’s Investor Service, DBRS, and Kroll Bond Rating Agency, Inc.

The portion of our AFS portfolio that was considered below investment grade based on NRSRO ratings was 12.1% and 13.3% as of March 31, 2019 and December 31, 2018, respectively. The primary driver of the difference in the percentage of securities considered below investment grade by NRSROs as compared to the securities considered below investment grade by the NAIC is the difference in methodologies between the NRSRO and NAIC for RMBS due to investments acquired and/or carried at a discount to par value, as discussed above.

As of each of March 31, 2019 and December 31, 2018, the non-rated securities shown above were comprised of 56% of corporate private placement securities for which we have not sought individual ratings from the NRSRO, and 29% and 30%, respectively, of RMBS, many of which were acquired at a significant discount to par. We rely on internal analysis of credit risk and designations assigned by the NAIC. As of each of March 31, 2019 and December 31, 2018, 92% of the non-rated securities were designated NAIC 1 or 2.

Asset-backed Securities – We invest in ABS which are securitized by pools of assets such as consumer loans, automobile loans, student loans, insurance-linked securities, operating cash flows of corporations and cash flows from various types of business equipment. Our AFS ABS holdings were \$6.1 billion and \$5.8 billion as of March 31, 2019 and December 31, 2018, respectively. The increase in our AFS ABS portfolio is mainly due to attractive investments made during the period as new deposits and the Voya and Lincoln investment portfolios are deployed. As of March 31, 2019 and December 31, 2018, our AFS ABS portfolio included \$5.5 billion (90% of the total) and \$5.4 billion (92% of the total), respectively, of securities that are considered investment grade based on NAIC designations, while \$5.5 billion (90% of the total) and \$5.2 billion (89% of the total), respectively, of securities were considered investment grade based on NRSRO ratings.

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Collateralized Loan Obligations – We also invest in CLOs which pay principal and interest from cash flows received from underlying corporate loans. These holdings were \$6.8 billion and \$5.9 billion as of March 31, 2019 and December 31, 2018, respectively.

A summary of our AFS CLO portfolio, including related parties, by NAIC designations and NRSRO quality ratings is as follows:

| <i>(In millions, except percentages)</i> | March 31, 2019 | | December 31, 2018 | |
|--|-----------------|------------------|-------------------|------------------|
| | Fair Value | Percent of Total | Fair Value | Percent of Total |
| NAIC designation | | | | |
| 1 | \$ 3,577 | 52.7% | \$ 3,005 | 50.7% |
| 2 | 3,029 | 44.7% | 2,498 | 42.2% |
| Total investment grade | 6,606 | 97.4% | 5,503 | 92.9% |
| 3 | 146 | 2.2% | 393 | 6.7% |
| 4 | 21 | 0.3% | 20 | 0.3% |
| 5 | 7 | 0.1% | 7 | 0.1% |
| 6 | — | —% | — | —% |
| Total below investment grade | 174 | 2.6% | 420 | 7.1% |
| Total AFS CLO including related party | \$ 6,780 | 100.0% | \$ 5,923 | 100.0% |
| NRSRO rating agency designation | | | | |
| AAA/AA/A | \$ 3,567 | 52.6% | \$ 2,921 | 49.3% |
| BBB | 3,039 | 44.8% | 2,829 | 47.8% |
| Total investment grade | 6,606 | 97.4% | 5,750 | 97.1% |
| BB | 146 | 2.2% | 146 | 2.4% |
| B | 21 | 0.3% | 27 | 0.5% |
| CCC | 7 | 0.1% | — | —% |
| CC and lower | — | —% | — | —% |
| Total below investment grade | 174 | 2.6% | 173 | 2.9% |
| Total AFS CLO including related party | \$ 6,780 | 100.0% | \$ 5,923 | 100.0% |

As of March 31, 2019 and December 31, 2018, a majority of our AFS CLO portfolio, 97.4% and 92.9%, respectively, was invested in assets considered to be investment grade based upon an application of the NAIC’s methodology. As of March 31, 2019 and December 31, 2018, 97.4% and 97.1%, respectively, of our AFS CLO portfolio was considered investment grade based on NRSRO ratings.

Commercial Mortgage-backed Securities – A portion of our AFS portfolio is invested in CMBS. CMBS are constructed from pools of commercial mortgages. These holdings were \$2.4 billion as of each of March 31, 2019 and December 31, 2018. As of March 31, 2019 and December 31, 2018, our AFS CMBS portfolio included \$2.2 billion (91% of the total) and \$2.1 billion (91% of the total), respectively, of securities that are considered investment grade based on NAIC designations, while \$1.6 billion (67% of the total) and \$1.6 billion (66% of the total), respectively, of securities were considered investment grade based on NRSRO ratings.

Residential Mortgage-backed Securities – As part of our core investment strategy, a portion of our AFS portfolio is invested in RMBS. RMBS are securities constructed from pools of residential mortgages and backed by payments from those pools. These holdings were \$7.9 billion and \$8.0 billion as of March 31, 2019 and December 31, 2018, respectively.

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A summary of our AFS RMBS portfolio by NAIC designations and NRSRO quality ratings is as follows:

| <i>(In millions, except percentages)</i> | March 31, 2019 | | December 31, 2018 | |
|--|-----------------|------------------|-------------------|------------------|
| | Fair Value | Percent of Total | Fair Value | Percent of Total |
| NAIC designation | | | | |
| 1 | \$ 7,236 | 91.4% | \$ 7,415 | 92.5% |
| 2 | 318 | 4.0% | 269 | 3.3% |
| Total investment grade | 7,554 | 95.4% | 7,684 | 95.8% |
| 3 | 222 | 2.8% | 207 | 2.6% |
| 4 | 118 | 1.5% | 106 | 1.3% |
| 5 | 22 | 0.3% | 22 | 0.3% |
| 6 | 1 | 0.0% | — | —% |
| Total below investment grade | 363 | 4.6% | 335 | 4.2% |
| Total AFS RMBS | \$ 7,917 | 100.0% | \$ 8,019 | 100.0% |
| NRSRO rating agency designation | | | | |
| AAA/AA/A | \$ 496 | 6.3% | \$ 487 | 6.1% |
| BBB | 270 | 3.4% | 220 | 2.7% |
| Non-rated ¹ | 2,874 | 36.3% | 2,932 | 36.6% |
| Total investment grade | 3,640 | 46.0% | 3,639 | 45.4% |
| BB | 325 | 4.1% | 332 | 4.1% |
| B | 279 | 3.5% | 301 | 3.8% |
| CCC | 2,163 | 27.3% | 2,259 | 28.2% |
| CC and lower | 1,315 | 16.6% | 1,292 | 16.1% |
| Non-rated ¹ | 195 | 2.5% | 196 | 2.4% |
| Total below investment grade | 4,277 | 54.0% | 4,380 | 54.6% |
| Total AFS RMBS | \$ 7,917 | 100.0% | \$ 8,019 | 100.0% |

¹ Securities denoted as non-rated by the NRSRO were classified as investment or non-investment grade according to the security’s respective NAIC designations.

A significant majority of our AFS RMBS portfolio, 95.4% and 95.8% as of March 31, 2019 and December 31, 2018, respectively, was invested in assets considered to be investment grade based upon an application of the NAIC’s methodology to our holdings of RMBS. The NAIC’s methodology with respect to RMBS gives explicit effect to the amortized cost at which an insurance company carries each such investment. Because we invested in RMBS after the stresses related to U.S. housing had caused significant downward pressure on prices of RMBS, we carry most of our investments in RMBS at significant discounts to par value, which results in an investment grade NAIC designation. In contrast, our understanding is that in setting ratings, NRSROs focus on the likelihood of recovering all contractual payments including principal at par value. As a result of a fundamental difference in approach, as of March 31, 2019 and December 31, 2018, NRSRO characterized 46.0% and 45.4%, respectively, of our AFS RMBS portfolio as investment grade.

Unrealized Losses

Our investments in AFS securities, including related parties, are reported at fair value with changes in fair value recorded in other comprehensive income. Certain of our AFS securities, including related parties, have experienced declines in fair value that we consider temporary in nature. As of March 31, 2019, our AFS securities, including related party, had a fair value of \$66.3 billion, which was 1.8% above amortized cost of \$65.1 billion. As of December 31, 2018, our AFS securities, including related party, had a fair value of \$60.7 billion, which was 1.3% below amortized cost of \$61.5 billion. These investments are held to support our product liabilities and we currently have the intent and ability to hold these securities until sale or maturity, and believe the securities will recover the amortized cost basis prior to sale or maturity.

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The following tables reflect the unrealized losses on the AFS portfolio, including related parties, by NAIC designations:

| | | March 31, 2019 | | | | | |
|--|--|---|-------------------------------|---|--|--|--|
| <i>(In millions, except percentages)</i> | | Amortized Cost of AFS Securities with Unrealized Loss | Gross Unrealized Losses | Fair Value of AFS Securities with Unrealized Loss | Fair Value to Amortized Cost Ratio | Fair Value of Total AFS Securities | Gross Unrealized Losses to Total AFS Fair Value |
| NAIC designation | | | | | | | |
| 1 | | \$ 8,572 | \$ (216) | \$ 8,356 | 97.5% | \$ 34,021 | (0.6)% |
| 2 | | 12,336 | (451) | 11,885 | 96.3% | 28,659 | (1.6)% |
| Total investment grade | | 20,908 | (667) | 20,241 | 96.8% | 62,680 | (1.1)% |
| 3 | | 1,596 | (91) | 1,505 | 94.3% | 2,711 | (3.4)% |
| 4 | | 446 | (53) | 393 | 88.1% | 689 | (7.7)% |
| 5 | | 186 | (8) | 178 | 95.7% | 248 | (3.2)% |
| 6 | | 2 | — | 2 | 100.0% | 11 | — % |
| Total below investment grade | | 2,230 | (152) | 2,078 | 93.2% | 3,659 | (4.2)% |
| Total | | \$ 23,138 | \$ (819) | \$ 22,319 | 96.5% | \$ 66,339 | (1.2)% |

| | | December 31, 2018 | | | | | |
|--|--|---|-------------------------------|---|--|--|--|
| <i>(In millions, except percentages)</i> | | Amortized Cost of AFS Securities with Unrealized Loss | Gross Unrealized Losses | Fair Value of AFS Securities with Unrealized Loss | Fair Value to Amortized Cost Ratio | Fair Value of Total AFS Securities | Gross Unrealized Losses to Total AFS Fair Value |
| NAIC designation | | | | | | | |
| 1 | | \$ 15,373 | \$ (545) | \$ 14,828 | 96.5% | \$ 31,311 | (1.7)% |
| 2 | | 19,152 | (1,035) | 18,117 | 94.6% | 25,871 | (4.0)% |
| Total investment grade | | 34,525 | (1,580) | 32,945 | 95.4% | 57,182 | (2.8)% |
| 3 | | 2,308 | (147) | 2,161 | 93.6% | 2,746 | (5.4)% |
| 4 | | 500 | (65) | 435 | 87.0% | 533 | (12.2)% |
| 5 | | 88 | (5) | 83 | 94.3% | 232 | (2.2)% |
| 6 | | 2 | — | 2 | 100.0% | 9 | — % |
| Total below investment grade | | 2,898 | (217) | 2,681 | 92.5% | 3,520 | (6.2)% |
| Total | | \$ 37,423 | \$ (1,797) | \$ 35,626 | 95.2% | \$ 60,702 | (3.0)% |

The gross unrealized losses on AFS securities, including related parties, were \$819 million and \$1.8 billion as of March 31, 2019 and December 31, 2018, respectively. The decrease in unrealized losses was driven by the decrease in U.S. Treasury rates and credit spreads tightening during the three months ended March 31, 2019.

Other-Than-Temporary Impairments

For our OTTI policy and the identification of securities that could potentially have impairments, see *Note 1 – Business, Basis of Presentation and Significant Accounting Policies* and *Note 2 – Investments* to the condensed consolidated financial statements, as well as *Critical Accounting Estimates and Judgments*.

During the three months ended March 31, 2019 and 2018, we recorded \$1 million and \$3 million, respectively, of OTTI losses, primarily related to corporate fixed maturities. The annualized OTTI losses we have experienced for the three months ended March 31, 2019 and 2018 translate into less than 1 basis point and 2 basis points, respectively, of average invested assets.

International Exposure

A portion of our AFS securities are invested in securities with international exposure. As of March 31, 2019 and December 31, 2018, 31% and 30% of the carrying value of our AFS securities, including related parties, was comprised of securities of issuers based outside of the United States and debt securities of foreign governments. These securities are either denominated in U.S. dollars or do not expose us to significant foreign currency risk as a result of foreign currency swap arrangements.

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The following table presents our international exposure in our AFS portfolio, including related parties, by country or region:

| (In millions, except percentages) | March 31, 2019 | | | December 31, 2018 | | |
|---|----------------|------------|------------------|-------------------|------------|------------------|
| | Amortized Cost | Fair Value | Percent of Total | Amortized Cost | Fair Value | Percent of Total |
| Country of risk | | | | | | |
| Ireland | \$ 631 | \$ 624 | 3.1% | \$ 578 | \$ 552 | 3.0% |
| Italy | 36 | 36 | 0.2% | 36 | 35 | 0.2% |
| Spain | 67 | 68 | 0.3% | 62 | 62 | 0.4% |
| Total Ireland, Italy, Greece, Spain and Portugal ¹ | 734 | 728 | 3.6% | 676 | 649 | 3.6% |
| Other Europe | 6,597 | 6,639 | 32.4% | 6,335 | 6,133 | 33.3% |
| Total Europe | 7,331 | 7,367 | 36.0% | 7,011 | 6,782 | 36.9% |
| Non-U.S. North America | 10,126 | 10,016 | 48.9% | 9,261 | 8,906 | 48.4% |
| Australia & New Zealand | 1,864 | 1,888 | 9.2% | 1,731 | 1,696 | 9.2% |
| Central & South America | 442 | 457 | 2.2% | 448 | 445 | 2.4% |
| Africa & Middle East | 247 | 255 | 1.3% | 228 | 226 | 1.2% |
| Asia/Pacific | 474 | 485 | 2.4% | 351 | 345 | 1.9% |
| Total | \$ 20,484 | \$ 20,468 | 100.0% | \$ 19,030 | \$ 18,400 | 100.0% |

¹ As of each of the respective periods, we had no holdings in Greece or Portugal.

Approximately 95.3% and 93.9% of these securities are investment grade by NAIC designation as of March 31, 2019 and December 31, 2018, respectively. As of March 31, 2019, 10% of our fixed maturity securities, including related parties, were invested in CLOs of Cayman Islands issuers (for which underlying investments are largely loans to U.S. issuers) and 21% were invested in securities of non-U.S. issuers.

Portugal, Ireland, Italy, Greece and Spain continue to represent credit risk as economic conditions in these countries continue to be volatile, especially within the financial and banking sectors. We had \$728 million and \$649 million as of March 31, 2019 and December 31, 2018, respectively, of exposure in these countries.

As of March 31, 2019, we held United Kingdom and Channel Islands AFS securities of \$2.5 billion, or 3.7% of our AFS securities, including related parties. As of March 31, 2019, these securities were in a net unrealized loss position of \$4 million. Our investment managers analyze each holding for credit risk by economic and other factors of each country and industry.

Trading Securities

Trading securities, including related parties, were \$2.5 billion and \$2.2 billion as of March 31, 2019 and December 31, 2018, respectively. Trading securities are primarily comprised of AmerUs Closed Block securities for which we have elected the fair value option valuation, CLO equity tranche securities, structured securities with embedded derivatives, and investments which support various reinsurance arrangements.

Mortgage Loans

The following is a summary of our mortgage loan portfolio by collateral type:

| (In millions, except percentages) | March 31, 2019 | | December 31, 2018 | |
|--|--------------------|------------------|--------------------|------------------|
| | Net Carrying Value | Percent of Total | Net Carrying Value | Percent of Total |
| Property type | | | | |
| Office building | \$ 2,527 | 22.3% | \$ 2,221 | 20.9% |
| Retail | 1,797 | 15.8% | 1,660 | 15.6% |
| Hotels | 1,040 | 9.2% | 1,040 | 9.8% |
| Industrial | 1,232 | 10.9% | 1,196 | 11.2% |
| Apartment | 899 | 7.9% | 791 | 7.4% |
| Other commercial ¹ | 284 | 2.5% | 389 | 3.7% |
| Total net commercial mortgage loans | 7,779 | 68.6% | 7,297 | 68.6% |
| Residential loans | 3,554 | 31.4% | 3,334 | 31.4% |
| Total mortgage loans, net of allowances | \$ 11,333 | 100.0% | \$ 10,631 | 100.0% |

¹ Other commercial loans include investments in nursing homes, other healthcare institutions, parking garages, storage facilities and other commercial properties.

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We invest a portion of our investment portfolio in mortgage loans, which are generally comprised of high quality commercial first lien and mezzanine real estate loans. Our mortgage loan holdings were \$11.3 billion and \$10.6 billion as of March 31, 2019 and December 31, 2018, respectively. This included \$2.2 billion and \$2.1 billion of mezzanine mortgage loans as of March 31, 2019 and December 31, 2018, respectively. The increase in mortgage loans is mainly driven by an increase in commercial mortgage loan (CML) and residential mortgage loan (RML) purchases during the period. We have acquired mortgage loans through acquisitions and reinsurance arrangements, as well as through an active program to invest in new mortgage loans. We invest in CMLs on income producing properties including hotels, apartments, retail and office buildings, and other commercial and industrial properties. Our RML portfolio primarily consists of first lien RMLs collateralized by properties located in the U.S. Loan-to-value ratios at the time of loan approval are generally 75% or less.

Our mortgage loans are primarily stated at unpaid principal balance, adjusted for any unamortized premium or discount, and net of valuation allowances. Interest income is accrued on the principal amount of the loan based on the loan’s contractual interest rate. Amortization of premiums and discounts is recorded using the effective interest method. Interest income, amortization of premiums and discounts, and prepayment fees are reported in net investment income.

It is our policy to cease to accrue interest on loans that are over 90 days delinquent. For loans less than 90 days delinquent, interest is accrued unless it is determined that the accrued interest is not collectible. If a loan becomes over 90 days delinquent, it is our general policy to initiate foreclosure proceedings unless a workout arrangement to bring the loan current is in place. As of March 31, 2019 and December 31, 2018, we had \$56 million and \$48 million, respectively, of mortgage loans that were 90 days past due, of which \$20 million and \$15 million, respectively, were in the process of foreclosure.

See *Note 2 – Investments* to the condensed consolidated financial statements for information regarding valuation allowance for collection loss, impairments, loan-to-value, and debt service coverage.

As of March 31, 2019 and December 31, 2018, we had not recorded any new specific loan valuation allowances. For each of the three months ended March 31, 2019 and 2018, we recorded \$0 million of impairments through net income. We have established a general and specific loan valuation allowance in the aggregate amount of \$2 million as of each of March 31, 2019 and December 31, 2018.

Investment Funds and Variable Interest Entities

Our investment funds investment strategy primarily focuses on funds with core holdings of credit assets, real assets, real estate, preferred equity and income producing assets. Our investment strategy focuses on sourcing assets with some or all of the following characteristics, among others: (1) investments that constitute a direct investment or an investment in a fund with a high degree of co-investment; (2) investments with credit- or debt-like characteristics (for example, a stipulated maturity and par value), or alternatively, investments with reduced volatility when compared to pure equity; or (3) investments that have less downside risk.

Our investment funds generally meet the definition of a VIE, and in certain cases these investment funds are consolidated in our financial statements because we meet the criteria of the primary beneficiary.

The following table illustrates our consolidated VIE positions:

| | March 31, 2019 | | December 31, 2018 | |
|--|----------------|------------------|-------------------|------------------|
| | Carrying Value | Percent of Total | Carrying Value | Percent of Total |
| <i>(In millions, except percentages)</i> | | | | |
| Assets of consolidated VIEs | | | | |
| Investments | | | | |
| Trading securities | \$ 34 | 5.0% | \$ 35 | 4.9% |
| Equity securities | 6 | 0.9% | 50 | 7.0% |
| Investment funds | 619 | 92.0% | 624 | 87.7% |
| Cash and cash equivalents | 2 | 0.3% | 2 | 0.3% |
| Other assets | 12 | 1.8% | 1 | 0.1% |
| Total assets of consolidated VIEs | \$ 673 | 100.0% | \$ 712 | 100.0% |
| Liabilities of consolidated VIEs | | | | |
| Other liabilities | \$ 1 | 100.0% | \$ 1 | 100.0% |
| Total liabilities of consolidated VIEs | \$ 1 | 100.0% | \$ 1 | 100.0% |

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The following table illustrates our investment funds, including related party positions of our non-consolidated VIEs and investment funds owned by consolidated VIEs:

| <i>(In millions, except percentages)</i> | March 31, 2019 | | December 31, 2018 | |
|---|-----------------|------------------|-------------------|------------------|
| | Carrying Value | Percent of Total | Carrying Value | Percent of Total |
| Investment funds | | | | |
| Real estate | \$ 224 | 6.2% | \$ 215 | 6.0% |
| Credit funds | 155 | 4.3% | 172 | 4.8% |
| Private equity | 239 | 6.7% | 253 | 7.1% |
| Real assets | 64 | 1.8% | 56 | 1.6% |
| Natural resources | 1 | 0.0% | 4 | 0.1% |
| Other | — | —% | 3 | 0.1% |
| Total investment funds | 683 | 19.0% | 703 | 19.7% |
| Investment funds – related parties | | | | |
| Differentiated investments | | | | |
| AmeriHome | 436 | 12.1% | 463 | 13.0% |
| Catalina | 232 | 6.5% | 233 | 6.5% |
| Athora | 124 | 3.5% | 105 | 3.0% |
| Venerable | 87 | 2.4% | 92 | 2.6% |
| Other | 171 | 4.8% | 162 | 4.6% |
| Total differentiated investments | 1,050 | 29.3% | 1,055 | 29.7% |
| Real estate | 498 | 13.9% | 506 | 14.2% |
| Credit funds | 340 | 9.5% | 341 | 9.6% |
| Private equity | 52 | 1.4% | 18 | 0.5% |
| Real assets | 144 | 4.0% | 145 | 4.1% |
| Natural resources | 123 | 3.4% | 104 | 2.9% |
| Public equities | 83 | 2.3% | 63 | 1.8% |
| Total investment funds – related parties | 2,290 | 63.8% | 2,232 | 62.8% |
| Investment funds owned by consolidated VIEs | | | | |
| MidCap | 550 | 15.3% | 552 | 15.5% |
| Credit funds | 1 | 0.0% | 1 | 0.0% |
| Real estate | 29 | 0.8% | 30 | 0.8% |
| Real assets | 39 | 1.1% | 41 | 1.2% |
| Total investment funds owned by consolidated VIEs | 619 | 17.2% | 624 | 17.5% |
| Total investment funds, including related parties and funds owned by consolidated VIEs | \$ 3,592 | 100.0% | \$ 3,559 | 100.0% |

Overall, the total investment funds, including related party and consolidated VIEs, were \$3.6 billion as of each of March 31, 2019 and December 31, 2018. See *Note 2 – Investments* to the condensed consolidated financial statements for further discussion regarding how we account for our investment funds. Our investment fund portfolio is subject to a number of market related risks including interest rate risk and equity market risk. Interest rate risk represents the potential for changes in the investment fund’s net asset values resulting from changes in the general level of interest rates. Equity market risk represents potential for changes in the investment fund’s net asset values resulting from changes in equity markets or from other external factors which influence equity markets. Our investment funds are subject to interest rate risk and equity market risk which expose us to potential volatility in our earnings period-over-period. We actively monitor our exposure to these risks.

Funds Withheld at Interest

Funds withheld at interest represents a receivable for amounts contractually withheld by ceding companies in accordance with modco and funds withheld reinsurance agreements in which we act as the reinsurer. Generally, assets equal to statutory reserves are withheld and legally owned by the ceding company. We hold funds withheld at interest receivables with related parties including those held with VIAC. As of March 31, 2019, the significant majority of the ceding companies holding the assets pursuant to such reinsurance agreements had a financial strength rating of A- or better.

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The funds withheld at interest is comprised of the host contract and an embedded derivative. We are subject to the investment performance on the withheld assets with the total return directly impacting the host contract and the embedded derivative. Interest accrues at a risk-free rate on the host receivable and is recorded as net investment income in the condensed consolidated statements of income. The embedded derivative in our reinsurance agreements is similar to a total return swap on the income generated by the underlying assets held by the ceding companies. The change in the embedded derivative is recorded in investment related gains (losses). Although we do not directly control the underlying investments in the funds withheld at interest, in each instance the ceding company has hired AAM to manage the withheld assets in accordance with our investment guidelines.

The following summarizes the underlying investment composition of the funds withheld at interest, including related parties:

| <i>(In millions, except percentages)</i> | March 31, 2019 | | December 31, 2018 | |
|---|------------------|------------------|-------------------|------------------|
| | Carrying Value | Percent of Total | Carrying Value | Percent of Total |
| Fixed maturity securities | | | | |
| U.S. government and agencies | \$ 55 | 0.2 % | \$ 77 | 0.3 % |
| U.S. state, municipal and political subdivisions | 556 | 1.9 % | 563 | 2.0 % |
| Foreign governments | 179 | 0.6 % | 145 | 0.5 % |
| Corporate | 15,787 | 54.6 % | 16,267 | 56.9 % |
| CLO | 2,420 | 8.4 % | 1,990 | 7.0 % |
| ABS | 2,023 | 7.0 % | 1,601 | 5.6 % |
| CMBS | 615 | 2.1 % | 575 | 2.0 % |
| RMBS | 1,924 | 6.7 % | 1,876 | 6.6 % |
| Equity securities | 242 | 0.8 % | 66 | 0.2 % |
| Mortgage loans | 3,929 | 13.6 % | 3,815 | 13.3 % |
| Investment funds | 591 | 2.0 % | 660 | 2.3 % |
| Derivative assets | 174 | 0.6 % | 77 | 0.3 % |
| Short-term investments | 514 | 1.8 % | 641 | 2.2 % |
| Cash and cash equivalents | 373 | 1.3 % | 455 | 1.6 % |
| Other assets and liabilities | (458) | (1.6)% | (208) | (0.8)% |
| Total funds withheld at interest including related party | \$ 28,924 | 100.0 % | \$ 28,600 | 100.0 % |

As of March 31, 2019 and December 31, 2018, we held \$28.9 billion and \$28.6 billion, respectively, of funds withheld at interest receivables, including related party. Approximately 96.1% and 96.6% of the fixed maturity securities within the funds withheld at interest are investment grade by NAIC designation as of March 31, 2019 and December 31, 2018, respectively.

Derivative Instruments

We hold derivative instruments for economic hedging purposes to reduce our exposure to cash flow variability of assets and liabilities, equity market risk, interest rate risk, credit risk and foreign exchange risk. The types of derivatives we may use include interest rate swaps, foreign currency swaps and forward contracts, total return swaps, credit default swaps, variance swaps, futures and fixed indexed options.

A discussion regarding our derivative instruments and how such instruments are used to manage risk is included in *Note 3 – Derivative Instruments* to the condensed consolidated financial statements.

As part of our risk management strategies, management continually evaluates our derivative instrument holdings and the effectiveness of such holdings in addressing risks identified in our operations.

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Invested Assets

The following summarizes our invested assets:

| <i>(In millions, except percentages)</i> | March 31, 2019 | | December 31, 2018 | |
|---|-----------------------------------|------------------|-----------------------------------|------------------|
| | Invested Asset Value ¹ | Percent of Total | Invested Asset Value ¹ | Percent of Total |
| Corporate | \$ 57,142 | 50.2% | \$ 55,772 | 50.2% |
| CLO | 9,192 | 8.1% | 8,275 | 7.5% |
| Credit | 66,334 | 58.3% | 64,047 | 57.7% |
| RMBS | 9,636 | 8.5% | 9,814 | 8.9% |
| Mortgage loans | 15,207 | 13.3% | 14,423 | 13.0% |
| CMBS | 3,046 | 2.7% | 3,018 | 2.7% |
| Real estate | 27,889 | 24.5% | 27,255 | 24.6% |
| ABS | 8,294 | 7.3% | 7,706 | 6.9% |
| Alternative investments | 4,390 | 3.9% | 4,492 | 4.1% |
| State, municipal, political subdivisions and foreign government | 2,256 | 2.0% | 2,122 | 1.9% |
| Equity securities | 832 | 0.7% | 467 | 0.4% |
| Short-term investments | 613 | 0.5% | 765 | 0.7% |
| U.S. government and agencies | 102 | 0.1% | 134 | 0.1% |
| Other investments | 16,487 | 14.5% | 15,686 | 14.1% |
| Cash and equivalents | 1,853 | 1.6% | 2,881 | 2.6% |
| Policy loans and other | 1,208 | 1.1% | 1,165 | 1.0% |
| Total invested assets | \$ 113,771 | 100.0% | \$ 111,034 | 100.0% |

¹ See *Key Operating and Non-GAAP Measures for the definition of invested assets*.

Our total invested assets were \$113.8 billion and \$111.0 billion as of March 31, 2019 and December 31, 2018, respectively. As of March 31, 2019, our total invested assets were mainly comprised of 50.2% of corporate securities, 26.6% of structured securities, 13.3% of mortgage loans and 3.9% of alternative investments. Corporate securities included \$15.2 billion of private placements, which represented 13.4% of our total invested assets. The increase in total invested assets as of March 31, 2019 from December 31, 2018 was primarily driven by strong growth in deposits which exceeded liability outflows.

In managing our business we utilize invested assets as presented in the above table. Invested assets do not correspond to the total investments, including related parties, on our condensed consolidated balance sheets, as discussed previously in *–Key Operating and Non-GAAP Measures*. Invested assets represent the investments that directly back our reserve liabilities and surplus assets. We believe this view of our portfolio provides a view of the assets for which we have economic exposure. We adjust the presentation for funds withheld and modco transactions to include or exclude the underlying investments based upon the contractual transfer of economic exposure to such underlying investments. We also deconsolidate any VIEs in order to show the net investment in the funds, which are included in the alternative investments line above.

Invested assets is utilized by management to evaluate our investment portfolio. Invested asset figures are used in the computation of net investment earned rate, which allows us to analyze the profitability of our investment portfolio. Invested assets is also used in our risk management processes for asset purchases, product design and underwriting, stress scenarios, liquidity, and ALM.

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Alternative Investments

The following summarizes our alternative investments:

| <i>(In millions, except percentages)</i> | March 31, 2019 | | December 31, 2018 | |
|---|----------------------|------------------|----------------------|------------------|
| | Invested Asset Value | Percent of Total | Invested Asset Value | Percent of Total |
| Retirement Services | | | | |
| Differentiated investments | | | | |
| AmeriHome | \$ 535 | 12.2% | \$ 568 | 12.6% |
| MidCap | 550 | 12.5% | 552 | 12.3% |
| Catalina | 232 | 5.3% | 232 | 5.2% |
| Venerable | 87 | 2.0% | 92 | 2.1% |
| Other | 207 | 4.7% | 195 | 4.3% |
| Total differentiated investments | 1,611 | 36.7% | 1,639 | 36.5% |
| Real estate | 955 | 21.8% | 1,024 | 22.8% |
| Credit | 550 | 12.5% | 563 | 12.5% |
| Private equity | 309 | 7.0% | 279 | 6.2% |
| Real assets | 283 | 6.4% | 276 | 6.2% |
| Natural resources | 55 | 1.3% | 55 | 1.2% |
| Other | 2 | 0.0% | 4 | 0.1% |
| Total Retirement Services alternative investments | 3,765 | 85.7% | 3,840 | 85.5% |
| Corporate and Other | | | | |
| Athora | 131 | 3.0% | 130 | 2.9% |
| Credit | 194 | 4.4% | 203 | 4.5% |
| Natural resources | 215 | 4.9% | 213 | 4.8% |
| Public equities ¹ | 83 | 1.9% | 100 | 2.2% |
| Other | 2 | 0.1% | 6 | 0.1% |
| Total Corporate and Other alternative investments | 625 | 14.3% | 652 | 14.5% |
| Total alternative investments | \$ 4,390 | 100.0% | \$ 4,492 | 100.0% |

¹ As of March 31, 2019, public equities primarily includes an investment in OneMain Holdings, Inc. (ticker: OMF).

Alternative investments were \$4.4 billion and \$4.5 billion as of March 31, 2019 and December 31, 2018, respectively, representing 3.9% and 4.1% of our total invested assets portfolio as of March 31, 2019 and December 31, 2018, respectively.

Alternative investments do not correspond to the total investment funds, including related parties and VIEs, on our condensed consolidated balance sheets. As discussed above in the invested assets section, we adjust the GAAP presentation for funds withheld and modco and de-consolidate VIEs. We also include CLO equity tranche securities in alternative investments due to their underlying characteristics and equity-like features.

Through our relationship with Apollo and AAM, we have indirectly invested in companies that meet the key characteristics we look for in alternative investments. Two of our largest alternative investments are in asset originators, MidCap and AmeriHome, both of which, from time to time, provide us with access to assets for our investment portfolio.

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MidCap

Our equity investment in MidCap is held indirectly through CoInvest VII, of which MidCap constitutes substantially all the fund's investments. MidCap is a commercial finance company that provides various financial products to middle-market businesses in multiple industries, primarily located in the U.S. MidCap primarily originates and invests in commercial and industrial loans, including senior secured corporate loans, working capital loans collateralized mainly by accounts receivable and inventory, senior secured loans collateralized by portfolios of commercial and consumer loans and related products and secured loans to highly capitalized pharmaceutical and medical device companies, and commercial real estate loans, including multifamily independent-living properties, assisted living, skilled nursing and medical office properties, warehouse, office building, hotel and other commercial use properties and multifamily properties. MidCap originates and acquires loans using borrowings under financing arrangements that it has in place with numerous financial institutions. MidCap's earnings are primarily driven by the difference between the interest earned on its loan portfolio and the interest accrued under its outstanding borrowings. As a result, MidCap is primarily exposed to the credit risk of its loan counterparties and prepayment risk. Additionally, financial results are influenced by related levels of middle-market business investment and interest rates.

Our alternative investment in CoInvest VII is substantially comprised of its investment in MidCap, which had a carrying value of \$550 million and \$552 million as of March 31, 2019 and December 31, 2018, respectively. Our investment in CoInvest VII largely reflects any contributions to and distributions from CoInvest VII and the fair value of MidCap. CoInvest VII returned a net investment earned rate of 9.50% and 11.79% for the three months ended March 31, 2019 and 2018, respectively. Alternative investment income from CoInvest VII was \$14 million and \$16 million for the three months ended March 31, 2019 and 2018, respectively.

AmeriHome

Our equity investment in AmeriHome is held indirectly through A-A Mortgage, of which AmeriHome is currently the fund's only investment. AmeriHome is a mortgage origination platform and an aggregator of mortgage servicing rights. AmeriHome acquires mortgage loans from retail originators and re-sells the loans to the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association and other investors. AmeriHome retains the mortgage servicing rights on the loans that it sells and employs a subservicer to perform servicing operations, including payment collection. AmeriHome's earnings are primarily driven by two sources: gains or losses on the sale of mortgage loans and the difference between the fee that it charges for mortgage servicing and the fee charged by the subservicer. As a result, AmeriHome's financial results are influenced by interest rates and related housing demand. AmeriHome is primarily exposed to credit risk related to the accuracy of the representations and warranties in the loans that AmeriHome acquires and prepayment risk, which prematurely terminates fees related to mortgage servicing.

Our alternative investment in A-A Mortgage had a carrying value of \$535 million and \$568 million as of March 31, 2019 and December 31, 2018, respectively. Our investment in A-A Mortgage represents our proportionate share of its net asset value, which largely reflects any contributions to and distributions from A-A Mortgage and the fair value of AmeriHome. A-A Mortgage returned a net investment earned rate of 14.27% and 13.75% for the three months ended March 31, 2019 and 2018, respectively. Alternative investment income from A-A Mortgage was \$20 million and \$18 million for the three months ended March 31, 2019 and 2018, respectively. The increase in alternative investment income for the three months ended March 31, 2019 compared to 2018 was driven by gain on sale of mortgage service rights.

Public Equities

We indirectly hold public equity positions through our equity investments in a few alternative investments. Although the carrying value of these securities is minor, such securities have resulted in volatility in our statements of income in recent periods. As of March 31, 2019 and December 31, 2018, we indirectly held public equity positions of \$83 million and \$100 million, respectively. As of March 31, 2019 and December 31, 2018, we held approximately 2.8 million and 2.8 million shares of OneMain, respectively, with a market value of \$83 million and \$63 million, respectively. As of December 31, 2018, we held approximately 5.5 million shares of Caesars, with a market value of \$37 million. Caesars was held indirectly through our investment in AAA Investment (Co Invest VI), L.P. (CoInvest VI). In the first quarter of 2019, CoInvest VI sold its remaining shares of Caesars.

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Non-GAAP Measure Reconciliations

The reconciliations to the nearest GAAP measure for adjusted operating income is included in the *Consolidated Results of Operations* section.

The reconciliation of shareholders’ equity to adjusted shareholders’ equity, which is included in adjusted book value per share, adjusted debt to capital ratio, adjusted ROE and adjusted operating ROE, is as follows:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|--|-----------------|-------------------|
| Total shareholders’ equity | \$ 10,117 | \$ 8,276 |
| Less: AOCI | 706 | (472) |
| Less: Accumulated change in fair value of reinsurance assets | 309 | (75) |
| Total adjusted shareholders’ equity | <u>\$ 9,102</u> | <u>\$ 8,823</u> |
| Segment adjusted shareholders’ equity | | |
| Retirement Services | \$ 8,201 | \$ 7,807 |
| Corporate and Other | 901 | 1,016 |
| Total adjusted shareholders’ equity | <u>\$ 9,102</u> | <u>\$ 8,823</u> |

The reconciliation of average shareholders’ equity to average adjusted shareholders’ equity, which is included in adjusted ROE and adjusted operating ROE is as follows:

| <i>(In millions)</i> | Three months ended March 31, | |
|--|------------------------------|-----------------|
| | 2019 | 2018 |
| Average shareholders’ equity | \$ 9,197 | \$ 8,932 |
| Less: Average AOCI | 117 | 1,042 |
| Less: Average accumulated change in fair value of reinsurance assets | 117 | 134 |
| Average adjusted shareholders’ equity | <u>\$ 8,963</u> | <u>\$ 7,756</u> |
| Segment average adjusted shareholders’ equity | | |
| Retirement Services | \$ 8,004 | \$ 5,366 |
| Corporate and Other | 959 | 2,390 |
| Average adjusted shareholders’ equity | <u>\$ 8,963</u> | <u>\$ 7,756</u> |

The reconciliation of net income to adjusted net income, which is included in adjusted ROE is as follows:

| <i>(In millions)</i> | Three months ended March 31, | |
|--|------------------------------|---------------|
| | 2019 | 2018 |
| Net income | \$ 708 | \$ 277 |
| Change in fair value of reinsurance assets | (384) | 54 |
| Adjusted net income | <u>\$ 324</u> | <u>\$ 331</u> |

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The reconciliation of net investment income to net investment earnings and earned rate is as follows:

| <i>(In millions, except percentages)</i> | Three months ended March 31, | | | |
|--|------------------------------|---------|-----------|---------|
| | 2019 | | 2018 | |
| | Dollar | Rate | Dollar | Rate |
| GAAP net investment income | \$ 1,066 | 3.79 % | \$ 855 | 4.41 % |
| Change in fair value of reinsurance assets | 132 | 0.47 % | 45 | 0.22 % |
| Net VIE earnings | 21 | 0.08 % | 15 | 0.08 % |
| Alternative income gain (loss) | (5) | (0.02)% | 1 | 0.01 % |
| Held for trading amortization | (11) | (0.04)% | (23) | (0.12)% |
| Total adjustments to arrive at net investment earnings/earned rate | 137 | 0.49 % | 38 | 0.19 % |
| Total net investment earnings/earned rate | \$ 1,203 | 4.28 % | \$ 893 | 4.60 % |
| Retirement Services | \$ 1,171 | 4.21 % | \$ 866 | 4.63 % |
| Corporate and Other | 32 | 13.19 % | 27 | 3.76 % |
| Total net investment earnings/earned rate | \$ 1,203 | 4.28 % | \$ 893 | 4.60 % |
| Retirement Services average invested assets | \$ 111,443 | | \$ 74,735 | |
| Corporate and Other average invested assets | 959 | | 2,844 | |
| Consolidated average invested assets | \$ 112,402 | | \$ 77,579 | |

The reconciliation of interest sensitive contract benefits to Retirement Services’ cost of crediting, and the respective rates, is as follows:

| <i>(In millions, except percentages)</i> | Three months ended March 31, | | | |
|--|------------------------------|---------|-----------|---------|
| | 2019 | | 2018 | |
| | Dollar | Rate | Dollar | Rate |
| GAAP interest sensitive contract benefits | \$ 1,516 | 5.44 % | \$ 31 | 0.16 % |
| Interest credited other than deferred annuities and institutional products | 55 | 0.20 % | 7 | 0.04 % |
| FIA option costs | 278 | 1.00 % | 174 | 0.93 % |
| Product charges (strategy fees) | (28) | (0.10)% | (22) | (0.12)% |
| Reinsurance embedded derivative impacts | 15 | 0.05 % | 3 | 0.02 % |
| Change in fair value of embedded derivatives – FIAs | (1,311) | (4.70)% | 121 | 0.65 % |
| Negative VOBA amortization | 12 | 0.04 % | 10 | 0.05 % |
| Other changes in interest sensitive contract liabilities | (2) | (0.01)% | (2) | (0.01)% |
| Total adjustments to arrive at cost of crediting | (981) | (3.52)% | 291 | 1.56 % |
| Retirement Services cost of crediting | \$ 535 | 1.92 % | \$ 322 | 1.72 % |
| Retirement Services cost of crediting on deferred annuities | \$ 444 | 1.98 % | \$ 275 | 1.87 % |
| Retirement Services cost of crediting on institutional products | 91 | 3.69 % | 47 | 3.14 % |
| Retirement Services cost of crediting | \$ 535 | 1.92 % | \$ 322 | 1.72 % |
| Retirement Services average invested assets | \$ 111,443 | | \$ 74,735 | |
| Average account value on deferred annuities | \$ 89,809 | | \$ 58,993 | |
| Average institutional reserve liabilities | \$ 9,809 | | \$ 5,955 | |

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The reconciliation of GAAP benefits and expenses to other liability costs is as follows:

| <i>(In millions)</i> | Three months ended March 31, | |
|--|------------------------------|--------|
| | 2019 | 2018 |
| GAAP benefits and expenses | \$ 4,221 | \$ 689 |
| Premiums | (1,966) | (278) |
| Product charges | (125) | (96) |
| Other revenues | (12) | (6) |
| Cost of crediting | (242) | (145) |
| Change in fair value of embedded derivatives – FIA, net of offsets | (1,260) | 66 |
| DAC, DSI and VOBA amortization related to investment gains and losses | (173) | 20 |
| Rider reserves related to investment gains and losses | (28) | 1 |
| Policy and other operating expenses, excluding policy acquisition expenses | (103) | (97) |
| AmerUs closed block fair value liability | (53) | 54 |
| Other | 1 | — |
| Total adjustments to arrive at other liability costs | (3,961) | (481) |
| Other liability costs | \$ 260 | \$ 208 |
| Retirement Services | \$ 260 | \$ 208 |
| Corporate and Other | — | — |
| Consolidated other liability costs | \$ 260 | \$ 208 |

The reconciliation of policy and other operating expenses to operating expenses is as follows:

| <i>(In millions)</i> | Three months ended March 31, | |
|---|------------------------------|--------|
| | 2019 | 2018 |
| Policy and other operating expenses | \$ 165 | \$ 142 |
| Interest expense | (17) | (13) |
| Policy acquisition expenses, net of deferrals | (62) | (45) |
| Integration, restructuring and other non-operating expenses | (1) | (8) |
| Stock compensation expenses | (3) | (3) |
| Total adjustments to arrive at operating expenses | (83) | (69) |
| Operating expenses | \$ 82 | \$ 73 |
| Retirement Services | \$ 62 | \$ 58 |
| Corporate and Other | 20 | 15 |
| Consolidated operating expenses | \$ 82 | \$ 73 |

The reconciliation of total investments, including related parties, to invested assets is as follows:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|---|--|-------------------|
| | Total investments, including related parties | \$ 115,687 |
| Derivative assets | (1,920) | (1,043) |
| Cash and cash equivalents (including restricted cash) | 3,518 | 3,403 |
| Accrued investment income | 751 | 682 |
| Payables for collateral on derivatives | (1,781) | (969) |
| Reinsurance funds withheld and modified coinsurance | (578) | 223 |
| VIE and VOE assets, liabilities and noncontrolling interest | 676 | 718 |
| Unrealized (gains) losses | (1,254) | 808 |
| Ceded policy loans | (283) | (281) |
| Net investment receivables (payables) | (1,045) | (139) |
| Total adjustments to arrive at invested assets | (1,916) | 3,402 |
| Total invested assets | \$ 113,771 | \$ 111,034 |

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The reconciliation of total investment funds, including related parties and VIEs, to alternative investments within invested assets is as follows:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|--|----------------|-------------------|
| Investment funds, including related parties and VIEs | \$ 3,592 | \$ 3,559 |
| CLO equities included in trading securities | 124 | 125 |
| Investment funds within funds withheld at interest | 591 | 660 |
| Royalties and other assets included in other investments | 69 | 71 |
| Net assets of the VIE, excluding investment funds | 18 | 50 |
| Unrealized (gains) losses and other adjustments | (4) | 27 |
| Total adjustments to arrive at alternative investments | 798 | 933 |
| Alternative investments | \$ 4,390 | \$ 4,492 |

The reconciliation of total liabilities to reserve liabilities is as follows:

| <i>(In millions)</i> | March 31, 2019 | December 31, 2018 |
|--|----------------|-------------------|
| Total liabilities | \$ 122,740 | \$ 117,229 |
| Long-term debt | (991) | (991) |
| Derivative liabilities | (85) | (85) |
| Payables for collateral on derivatives | (1,781) | (969) |
| Funds withheld liability | (724) | (721) |
| Other liabilities | (1,410) | (888) |
| Liabilities of consolidated VIEs | (1) | (1) |
| Reinsurance ceded receivables | (5,647) | (5,534) |
| Policy loans ceded | (283) | (281) |
| Other | (27) | (27) |
| Total adjustments to arrive at reserve liabilities | (10,949) | (9,497) |
| Total reserve liabilities | \$ 111,791 | \$ 107,732 |

Liquidity and Capital Resources

There are two forms of liquidity relevant to our business, funding liquidity and balance sheet liquidity. Funding liquidity relates to the ability to fund operations. Balance sheet liquidity relates to our ability to liquidate or rebalance our balance sheet without incurring significant costs from fees, bid-offer spreads, or market impact. We manage our liquidity position by matching projected cash demands with adequate sources of cash and other liquid assets. Our principal sources of liquidity, in the ordinary course of business, are operating cash flows and holdings of cash, cash equivalents and other readily marketable assets.

Our investment portfolio is structured to ensure a strong liquidity position over time in order to permit timely payment of policy and contract benefits without requiring asset sales at inopportune times or at depressed prices. In general, liquid assets include cash and cash equivalents, highly rated corporate bonds, unaffiliated preferred stock and unaffiliated public common stock, all of which generally have liquid markets with a large number of buyers. The carrying value of these assets as of March 31, 2019 was \$54.3 billion. Although our investment portfolio does contain assets that are generally considered illiquid for liquidity monitoring purposes (primarily mortgage loans, policy loans, real estate, investment funds, and affiliated common stock), there is some ability to raise cash from these assets if needed. In periods of economic downturn we may maintain higher cash balances than required to manage our liquidity risk and to take advantage of market dislocations as they arise. We have access to additional liquidity through our \$1.0 billion revolving credit facility, which was undrawn as of March 31, 2019 and has a remaining term of approximately two years. Our registration statement on Form S-3 ASR (Shelf Registration Statement) provides us access to the capital markets, subject to market conditions and other factors. In addition, through our membership in the FHLB, we are eligible to borrow under variable rate short-term federal funds arrangements to provide additional liquidity.

We proactively manage our liquidity position to meet cash needs while minimizing adverse impacts on investment returns. We analyze our cash-flow liquidity over the upcoming 12 months by modeling potential demands on liquidity under a variety of scenarios, taking into account the provisions of our policies and contracts in force, our cash flow position, and the volume of cash and readily marketable securities in our portfolio. We also monitor our liquidity profile under more severe scenarios.

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We perform a number of stress tests and analyses to assess our ability to meet our cash flow requirements, as well as the ability of our reinsurance and insurance subsidiaries to meet their collateral obligations. Among these analyses, we manage to the following ALM limits:

- our projected net cumulative cash flows, including both new business and target levels of new investments under a “plan scenario” and a “moderately severe scenario” event, are non-negative over a rolling 12-month horizon;
- we hold enough cash, cash equivalents and other discounted liquid limit assets to cover 12 months of AHL's and Athene USA's projected obligations, including debt servicing costs
 - minimum of 50% of expenses and 100% of debt servicing to be held in cash and cash equivalents at AHL operating accounts
 - minimum of 50% of any required AHL – Athene USA inter-company loan commitments to be held in cash and cash equivalents by AHL
 - dividends from ALRe sufficient to support the ongoing operations of AHL must be available under moderate and substantial stress scenarios
 - for purposes of administering this test, liquid limit assets are discounted by 25% and include public corporate bonds rated A- or above, liquid ABS (defined as prime auto, auto floorplan, Tier 1 subprime auto, auto lease, prime credit cards, equipment lease or utility stranded assets); RMBS with weighted average lives less than three years rated A- or above and CMBS with weighted average lives less than three years rated AAA- or above
- we seek to maintain sufficient capital and surplus at ALRe to meet the following collateral and capital maintenance calls under a substantial stress event, such as the failure of a major financial institution (Lehman event):
 - collateral calls from modco and third-party reinsurance contracts
 - Athene Annuity Re Ltd. (AARE) capital maintenance calls arising from AARE collateral calls from modco reinsurance contracts; and
 - U.S. regulated entity capital maintenance calls from nonmodco activity.

Insurance Subsidiaries' Liquidity

Operations

The primary cash flow sources for our insurance subsidiaries include retirement services product inflows (premiums), investment income, principal repayments on our investments, and net transfers from separate accounts and financial product deposits. Uses of cash include investment purchases, payments to policyholders for surrenders and withdrawals, maturity payments on funding agreements, policy acquisition costs, and general operating costs.

Our policyholder obligations are generally long-term in nature. However, one liquidity risk is an extraordinary level of early policyholder withdrawals. We include provisions within our annuity policies, such as surrender charges and MVAs, which are intended to protect us from early withdrawals. As of each of March 31, 2019 and December 31, 2018, approximately 78% of our deferred annuity liabilities were subject to penalty upon surrender. In addition, as of March 31, 2019 and December 31, 2018, approximately 64% and 65%, respectively of policies contained MVAs that may also have the effect of limiting early withdrawals if interest rates increase. Our funding agreements, group annuities and payout annuities are generally non-surrenderable.

Membership in Federal Home Loan Bank

Through our membership in the FHLB, we are eligible to borrow under variable rate short-term federal funds arrangements to provide additional liquidity. The borrowings must be secured by eligible collateral such as mortgage loans, eligible CMBS or RMBS, government or agency securities and guaranteed loans. There were no outstanding borrowings under these arrangements as of March 31, 2019 or December 31, 2018.

We have issued funding agreements to the FHLB in exchange for cash advances. These funding agreements were issued in an investment spread strategy, consistent with other investment spread operations. As of March 31, 2019 and December 31, 2018, we had funding agreements outstanding with the FHLB in the aggregate principal amount of \$926 million.

The maximum FHLB indebtedness by a member is determined by the amount of collateral pledged, and cannot exceed a specified percentage of the member's total statutory assets dependent on the internal credit rating assigned to the member by the FHLB. As of March 31, 2019, the total maximum borrowings under the FHLB facility were limited to \$17.4 billion. However, our ability to borrow under the facility is constrained by the availability of assets that qualify as eligible collateral under the facility and by the Iowa Code requirement that we maintain funds equivalent to our legal reserve in certain permitted investments, from which we exclude pledged assets. Considering these limitations, we estimate that as of March 31, 2019 we had the ability to draw up to a total of approximately \$1.5 billion, inclusive of borrowings then outstanding. This estimate is based on our internal analysis and assumptions, and may not accurately measure collateral which is ultimately acceptable to the FHLB. Drawing such amounts would have an adverse impact on AAIA's RBC ratio, which may further restrict our ability or willingness to draw up to our estimated capacity.

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

Our cash flows were as follows:

| <i>(In millions)</i> | Three months ended March 31, | |
|---|------------------------------|------------|
| | 2019 | 2018 |
| Net income | \$ 708 | \$ 277 |
| Non-cash revenues and expenses | 301 | 296 |
| Net cash provided by operating activities | 1,009 | 573 |
| Sales, maturities and repayments of investments | 3,170 | 4,235 |
| Purchases of investments | (6,547) | (7,050) |
| Other investing activities | 601 | (69) |
| Net cash used in investing activities | (2,776) | (2,884) |
| Deposits on investment-type policies and contracts | 2,793 | 1,774 |
| Withdrawals on investment-type policies and contracts | (1,638) | (1,474) |
| Net change in cash collateral posted for derivative transactions | 812 | (1,178) |
| Net proceeds and repayment of debt | — | 998 |
| Other financing activities | (85) | 19 |
| Net cash provided by financing activities | 1,882 | 139 |
| Net increase (decrease) in cash and cash equivalents ¹ | \$ 115 | \$ (2,172) |

¹ Includes cash and cash equivalents, restricted cash, and cash and cash equivalents of consolidated VIEs.

Cash flows from operating activities

The primary cash inflows from operating activities include net investment income, annuity considerations and insurance premiums. The primary cash outflows from operating activities are comprised of benefit payments and operating expenses. Our operating activities generated cash flows totaling \$1.0 billion and \$573 million for the three months ended March 31, 2019 and 2018, respectively. The increase in cash provided by operating activities was primarily driven by an increase in net investment income reflecting growth in our investment portfolio and an increase in PRT premiums.

Cash flows from investing activities

The primary cash inflows from investing activities are the sales, maturities and repayments of investments. The primary cash outflows from investing activities are the purchases and acquisitions of new investments. Our investing activities used cash flows totaling \$2.8 billion and \$2.9 billion for the three months ended March 31, 2019 and 2018, respectively. The change in cash used in investing activities was primarily attributed to the deconsolidation of Germany in 2018 as well as the investment of proceeds from our debt issuance in 2018.

Cash flows from financing activities

The primary cash inflows from financing activities are deposits on our investment-type policies, changes of cash collateral posted for derivative transactions, capital contributions and proceeds from borrowing activities. The primary cash outflows from financing activities are withdrawals on our investment-type policies, changes of cash collateral posted for derivative transactions and repayments of borrowing activities. Our financing activities provided cash flows totaling \$1.9 billion and \$139 million for the three months ended March 31, 2019 and 2018, respectively. The change in cash provided from financing activities was primarily attributed to the change in cash collateral posted for derivative transactions driven by favorable equity market performance in 2019 and higher investment-type deposits from retail and flow reinsurance deposits, partially offset by 2018 proceeds from the issuance of debt and the repurchase of common stock in 2019.

Holding Company Liquidity

AHL is a holding company whose primary liquidity needs include the cash-flow requirements relating to its corporate activities, including its day-to-day operations, debt servicing and strategic transactions, such as acquisitions. The primary source of AHL’s cash flow is dividends from its subsidiaries, which are expected to be adequate to fund cash flow requirements based on current estimates of future obligations.

The ability of AHL’s insurance subsidiaries to pay dividends is limited by applicable laws and regulations of the jurisdictions where the subsidiaries are domiciled, as well as agreements entered into with regulators. These laws and regulations require, among other things, the insurance subsidiaries to maintain minimum solvency requirements and limit the amount of dividends these subsidiaries can pay.

Subject to these limitations and prior notification to the appropriate regulatory agency, the U.S. insurance subsidiaries are permitted to pay ordinary dividends based on calculations specified under insurance laws of the relevant state of domicile. Any distributions above the amount

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

permitted by statute in any twelve month period are considered to be extraordinary dividends, and the approval of the appropriate regulator is required prior to payment. AHL does not currently plan on having the U.S. subsidiaries pay any dividends to ALRe.

Dividends from ALRe are projected to be the primary source of AHL's liquidity. Under the Bermuda Insurance Act, ALRe is prohibited from paying a dividend in an amount exceeding 25% of the prior year's statutory capital and surplus, unless at least two members of ALRe's board of directors and its principal representative in Bermuda sign and submit to the Bermuda Monetary Authority (BMA) an affidavit attesting that a dividend in excess of this amount would not cause ALRe to fail to meet its relevant margins. In certain instances, ALRe would also be required to provide prior notice to the BMA in advance of the payment of dividends. In the event that such an affidavit is submitted to the BMA in accordance with the Bermuda Insurance Act, and further subject to ALRe meeting its relevant margins, ALRe is permitted to distribute up to the sum of 100% of statutory surplus and an amount less than 15% of its total statutory capital. Distributions in excess of this amount require the approval of the BMA.

The maximum distribution permitted by law or contract is not necessarily indicative of our actual ability to pay such distributions, which may be further restricted by business and other considerations, such as the potential imposition of withholding tax and the impact of such distributions on surplus, which could affect our ratings or competitive position and the amount of premiums that can be written. Specifically, the level of capital needed to maintain desired financial strength ratings from rating agencies, including S&P, A.M. Best and Fitch, is of particular concern when determining the amount of capital available for distributions. AHL believes its insurance subsidiaries have sufficient statutory capital and surplus, combined with additional capital available to be provided by AHL, to meet their financial strength ratings objectives. Finally, state insurance laws and regulations require that the statutory surplus of our insurance subsidiaries following any dividend or distribution must be reasonable in relation to their outstanding liabilities and adequate for the insurance subsidiaries' financial needs.

Other Sources of Funding

If needed, we may seek to secure additional funding at the holding company level by means other than dividends from subsidiaries, such as by drawing on our undrawn \$1.0 billion credit facility or by pursuing future issuances of debt or equity securities to third-party investors. However, such additional funding may not be available on terms favorable to us or at all, depending on our financial condition, results of operations or prevailing market conditions. In addition, certain covenants in our credit facility prohibit us from incurring any debt not expressly permitted thereby, which may limit our ability to pursue future issuances of debt. Specifically, our credit facility prohibits us from incurring any debt if, on a pro-forma basis, the debt would cause us to exceed a Consolidated Debt to Capitalization Ratio (as such term is defined in the credit facility) of 35%. Certain other sources of liquidity potentially available at the holding company level are discussed below.

Shelf Registration

Under our Shelf Registration Statement, subject to market conditions we have the ability to issue, in indeterminate amounts, debt securities, preferred shares, depositary shares, Class A common shares, warrants and units. On January 12, 2018, we issued \$1.0 billion in aggregate principal amount of 4.125% Senior Notes due January 2028 under our Shelf Registration Statement.

Intercompany Note

AHL has an unsecured revolving note payable with ALRe, which permits AHL to borrow up to \$1 billion with a fixed interest rate of 1.25% and a maturity date of March 31, 2024. As of March 31, 2019 and December 31, 2018, the revolving note payable had an outstanding balance of \$174 million and \$105 million, respectively.

Capital Resources

As of December 31, 2018 and 2017, our U.S. insurance companies' total adjusted capital (TAC), as defined by the NAIC, was \$2.2 billion and \$1.9 billion, respectively, and our U.S. RBC ratio was 421% and 490%. Each U.S. domestic insurance subsidiary's state of domicile imposes minimum RBC requirements that were developed by the NAIC. The formulas for determining the amount of RBC specify various weighting factors that are applied to financial balances or various levels of activity based on the perceived degree of risk. Regulatory compliance is determined by a ratio of TAC to its authorized control level RBC (ACL). Our TAC was significantly in excess of all regulatory standards as of December 31, 2018 and 2017, respectively.

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

ALRe statutory capital was \$9.7 billion and \$7.0 billion as of December 31, 2018 and 2017, respectively. During 2018, AHL contributed its wholly owned subsidiary, Athene USA, to ALRe. ALRe adheres to BMA regulatory capital requirements to maintain statutory capital and surplus to meet the MMS and maintain minimum EBS capital and surplus to meet the enhanced capital requirement. Under the EBS framework, ALRe's assets are recorded at market value and its insurance reserves are determined by reference to nine prescribed scenarios, with the scenario resulting in the highest reserve balance being ultimately required to be selected. ALRe's EBS capital and surplus was \$12.0 billion and \$7.7 billion, resulting in a BSCR ratio of 340% and 354% as of December 31, 2018 and 2017, respectively. An insurer must have a BSCR ratio of 100% or greater to be considered solvent by the BMA. As of December 31, 2018 and 2017, ALRe held the appropriate capital to adhere to these regulatory standards. In evaluating our capital position and the amount of capital needed to support our Retirement Services segment, we review our ALRe capital by applying the NAIC RBC factors. As of December 31, 2018 and 2017, our ALRe RBC was 405% and 562%, respectively. The decrease in ALRe RBC was driven by the capital charges related to the Voya and Lincoln reinsurance agreements, alternative investment deployment, the increase in deposits and impacts resulting from the Tax Act. Although the updates to the RBC factors to reflect the reduction in the corporate income tax rate from 35% to 21% lowered our ALRe RBC ratio, we do not believe this materially impacted the level of capital that we deem appropriate to run our business. We believe that we enjoy a strong capital position in light of our risks and that we are well positioned to meet policyholder and other obligations. We also believe that our strong capital position, as well as our excess capital position, provides us the opportunity to take advantage of market dislocations as they arise.

Share Repurchase Program

In December 2018, our board of directors approved an authorization for the repurchase of up to \$250 million of our Class A shares. In the first quarter of 2019, our board of directors approved an authorization for the purchase of up to an additional \$247 million of our Class A shares under our share repurchase program, which was conditioned upon the further approval by a committee of our board of directors. Such further approval was granted during the second quarter of 2019. Pursuant to our share repurchase program, we have repurchased 3.7 million Class A shares for \$147 million as of March 31, 2019, of which 1.2 million Class A shares were repurchased in 2019 for \$47 million. As of May 7, 2019, we have \$350 million of repurchase authorization remaining.

Balance Sheet and Other Arrangements

Contractual Obligations

There have been no material changes to our contractual obligations from those previously disclosed in the 2018 Annual Report.

Off Balance Sheet Arrangements

None.

Critical Accounting Estimates and Judgments

The preparation of consolidated financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of any contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Amounts based on such estimates involve numerous assumptions subject to varying and potentially significant degrees of judgment and uncertainty, particularly related to the future performance of the underlying business, and will likely change in the future as additional information becomes available. Critical estimates and assumptions are evaluated on an ongoing basis based on historical developments, market conditions, industry trends and other information that is reasonable under the circumstances. There can be no assurance that actual results will conform to estimates and assumptions and that reported results of operations will not be materially affected by the need to make future accounting adjustments to reflect periodic changes in these estimates and assumptions. Critical accounting estimates are impacted significantly by our methods, judgments and assumptions used in the preparation of the consolidated financial statements and should be read in conjunction with our significant accounting policies described in *Note 1 – Business, Basis of Presentation and Significant Accounting Policies* to the consolidated financial statements of our 2018 Annual Report. The most critical accounting estimates and judgments include those used in determining:

- fair value of investments;
- impairment of investments and valuation allowances;
- future policy benefit reserves;
- derivatives valuation, including embedded derivatives;
- deferred acquisition costs, deferred sales inducements and value of business acquired;
- stock-based compensation;
- consolidation of VIEs; and
- valuation allowances on deferred tax assets.

The above critical accounting estimates and judgments are discussed in detail in *Part II—Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations* of our 2018 Annual Report.

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

See *Note 1 – Business, Basis of Presentation and Significant Accounting Policies* to the condensed consolidated financial statements for adoption of new and future accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures About Market Risks

We regularly analyze our exposure to market risks, which reflect potential losses in value due to credit and counterparty risk, interest rate risk, currency risk, commodity price risk and equity price risk. As a result of that analysis, we have determined that we are primarily exposed to credit risk, interest rate risk and to a lesser extent, equity price risk. A description of our market risk exposures, including strategies used to manage our exposure to market risk, may be found under *Part II—Item 7A. Quantitative and Qualitative Disclosures About Market Risk* of the 2018 Annual Report.

There have been no material changes to our market risk exposures from those previously disclosed in the 2018 Annual Report.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures as such term is defined under Exchange Act Rule 13a-15(e), that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures. In designing and evaluating the disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives and our management necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. We have carried out an evaluation, as of the end of the period covered by this report, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on this evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective at attaining the level of reasonable assurance noted above.

Changes in Internal Control Over Financial Reporting

During the quarter ended March 31, 2019, management designed and implemented a new control to address the material weakness described in *Part II—Item 9A. Controls and Procedures* included in our 2018 Annual Report. This new control operated effectively and based upon management's evaluation of the newly implemented control, management assessed the material weakness was remediated during the quarter ended March 31, 2019.

There were no other changes to our internal control over financial reporting during the quarter ended March 31, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

We are subject to litigation arising in the ordinary course of our business, including litigation principally relating to our FIA business. We cannot assure you that our insurance coverage will be adequate to cover all liabilities arising out of such claims. The outcomes of legal proceedings and claims brought against us are subject to significant uncertainty. There is significant judgment required in assessing both the probability of an adverse outcome and the determination as to whether an exposure can be reasonably estimated. In management's opinion, the ultimate disposition of any current legal proceedings or claims brought against us will not have a material effect on our financial condition, results of operations or cash flows. Litigation is, however, inherently uncertain and an adverse outcome from such litigation could have a material effect on the operating results of a particular reporting period.

From time to time, in the ordinary course of business and like others in the insurance and financial services industries, we receive requests for information from government agencies in connection with such agencies' regulatory or investigatory authority. Such requests can include financial or market conduct examinations, subpoenas or demand letters for documents to assist the government in audits or investigations. We and each of our U.S. insurance subsidiaries review such requests and notices and take appropriate action. We have been subject to certain requests for information and investigations in the past and could be subject to them in the future.

For a description of certain legal proceedings affecting us, see *Note 9 – Commitments and Contingencies – Litigation, Claims and Assessments* to the condensed consolidated financial statements.

Item 1A. Risk Factors

There have been no material changes to our risk factors from the risk factors previously disclosed in *Part I—Item 1A. Risk Factors* our 2018 Annual Report.

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

Issuer Purchases of Securities

Purchases of common stock made by or on behalf of us or our affiliates during the three months ended March 31, 2019 are set forth below:

| Period | (a) Total number of shares purchased ¹ | (b) Average price paid per share | (c) Total number of shares purchased as part of publicly announced programs ^{1,2} | (d) Maximum number (or approximate dollar value) of shares that may yet be purchased under the plans or programs ² |
|--------------------------------|---|----------------------------------|--|---|
| January 1 – January 31, 2019 | 1,199,445 | \$ 40.84 | 1,162,262 | \$ 102,632,284 |
| February 1 – February 28, 2019 | 175 | \$ 44.33 | — | \$ 102,632,284 |
| March 1 – March 31, 2019 | 60,728 | \$ 44.54 | — | \$ 102,632,284 |

¹ Differences in amounts between column (a) and (c) relate to shares withheld (under the terms of employee stock-based compensation plans) to offset tax withholding obligations that occur upon the delivery of outstanding shares underlying equity awards or upon the exercise of stock options.

² On December 10, 2018, we announced that our board of directors had approved an authorization for the repurchase of up to \$250 million of our Class A shares (Previous Authorization). On May 7, 2019, we announced that our board of directors had approved an authorization for the repurchase of up to \$350 million of our Class A shares, inclusive of the remaining shares authorized for repurchase under the Previous Authorization. Neither authorization has a definitive expiration date, but may be terminated at any time at the sole discretion of our board of directors. See *Note 7 – Equity* to the condensed consolidated financial statements for more information.

EXHIBIT INDEX

| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|--|
| 31.1 | Principal Executive Officer Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2 | Principal Financial Officer Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1 | Principal Executive Officer Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 32.2 | Principal Financial Officer Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 101.INS | XBRL Instance Document. |
| 101.SCH | XBRL Taxonomy Extension Schema. |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase. |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase. |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase. |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase. |

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.

ATHENE HOLDING LTD.

Date: May 7, 2019

/s/ Martin P. Klein

Martin P. Klein

Executive Vice President and Chief Financial Officer
(principal financial officer and duly authorized signatory)

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY OF 2002

I, James R. Belardi, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Athene Holding 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 this 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 (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the 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: May 7, 2019

/s/ James R. Belardi

James R. Belardi

Chairman, Chief Executive Officer and Chief Investment Officer
(principal executive officer)

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY OF 2002

I, Martin P. Klein, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Athene Holding 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 this 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 (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the 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: May 7, 2019

/s/ Martin P. Klein

Martin P. Klein

Executive Vice President and Chief Financial Officer
(principal financial officer)

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY OF 2002

I, James R. Belardi, certify that Athene Holding Ltd.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Athene Holding Ltd.

Date: May 7, 2019

/s/ James R. Belardi

James R. Belardi

Chairman, Chief Executive Officer and Chief Investment Officer

(principal executive officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY OF 2002

I, Martin P. Klein, certify that Athene Holding Ltd.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Athene Holding Ltd.

Date: May 7, 2019

/s/ Martin P. Klein

Martin P. Klein

Executive Vice President and Chief Financial Officer

(principal financial officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.