UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
**Washington, D.C. 20549**

# FORM 10-Q

(Mark One)

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

**For the quarterly period ended March 31, 2018**

**or**

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

**For the transition period from to**
**Commission file number 001-32293**

# HARTFORD LIFE INSURANCE COMPANY

**(Exact name of registrant as specified in its charter)**

| | |
|---|---|
| **Connecticut** | **06-0974148** |
| **(State or other jurisdiction of incorporation or organization)** | **(I.R.S. Employer Identification No.)** |

**One Hartford Plaza, Hartford, Connecticut 06155**
**(Address of principal executive offices)**

**(860) 547-5000**
**(Registrant's telephone number, including area code)**

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

• whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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. ☐

| | | |
|---|---|---|
| • whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act.) | ☐ | ☒ |

As of April 30, 2018, there were outstanding 1,000 shares of Common Stock, $5,690 par value per share, of the registrant.

**The registrant meets the conditions set forth in General Instruction (H) (1) of Form 10-Q and is therefore filing this Form with the reduced disclosure format.**

**HARTFORD LIFE INSURANCE COMPANY**
**QUARTERLY REPORT ON FORM 10-Q**
**FOR THE QUARTERLY PERIOD ENDED MARCH 31, 2018**

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*[a] The information contained in the Financial Risk Management section of Management's Discussion and Analysis of Financial Condition and Results of Operations of the Company's 2017 Form 10-K Annual Report is incorporated herein by reference.*

## Forward-Looking Statements

Certain of the statements contained herein are forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as “anticipates,” “intends,” “plans,” “seeks,” “believes,” “estimates,” “expects,” “projects,” and similar references to future periods.

Forward-looking statements are based on management's current expectations and assumptions regarding future economic, competitive, legislative and other developments and their potential effect upon Hartford Life Insurance Company and its subsidiaries (collectively, the “Company”). Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Actual results could differ materially from expectations, depending on the evolution of various factors, including the risks and uncertainties identified below, as well as factors described in such forward-looking statements or in Part I, Item 1A, Risk Factors, in the Company’s 2017 Form 10-K Annual Report and those identified from time to time in our other filings with the Securities and Exchange Commission ("SEC").

- Risks Relating to Economic, Political and Global Market Conditions:
    - challenges related to the Company's current operating environment, including global, political, economic and market conditions, and the effect of financial market disruptions, economic downturns or other potentially adverse macroeconomic developments on our products, the returns in our investment portfolios and the hedging costs associated with our run-off annuity block;
    - financial risk related to the continued reinvestment of our investment portfolios and performance of our hedge program for our run-off annuity block;
    - market risks associated with our business, including changes in credit spreads, equity prices, interest rates, market volatility and foreign exchange rates;
    - the impact on our investment portfolio if our investment portfolio is concentrated in any particular segment of the economy;
- Insurance Industry and Product-Related Risks:
    - volatility in our statutory earnings and earnings calculated in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") and potential material changes to our results resulting from our adjustment of our risk management program to emphasize protection of economic value;
    - the possibility of a terrorist attack, a pandemic, or other natural or man-made disaster that may increase the Company's mortality exposure and adversely affect its businesses;
- Financial Strength, Credit and Counterparty Risks:
    - risks to our business, financial position, prospects and results associated with negative rating actions or downgrades in the Company's financial strength and credit ratings or negative rating actions or downgrades relating to our investments;
    - the impact on our statutory capital of various factors, including many that are outside the Company’s control, which can in turn affect our credit and financial strength ratings, cost of capital, regulatory compliance and other aspects of our business and results;
    - losses due to nonperformance or defaults by others, including sourcing partners, derivative counterparties and other third parties;
    - the potential for losses due to our reinsurers' unwillingness or inability to meet their obligations under reinsurance contracts and the availability, pricing and adequacy of reinsurance to protect the Company against losses;
    - regulatory limitations on the ability of the Company and certain of its subsidiaries to declare and pay dividends;
- Risks Relating to Estimates, Assumptions and Valuations:
    - risk associated with the use of analytical models in making decisions in key areas such as capital management, hedging, and reserving;
    - the potential for differing interpretations of the methodologies, estimations and assumptions that underlie the Company’s fair value estimates for its investments and the evaluation of the other-than-temporary impairments on available-for-sale securities;
    - the potential for further acceleration of deferred policy acquisition cost amortization and an increase in reserve for certain guaranteed benefits in our variable annuities;

    - the potential for valuation allowances against deferred tax assets;
- Strategic and Operational Risks:
    - risks associated with the run off of our annuity book of business;
    - the Company’s ability to maintain the availability of its systems and safeguard the security of its data in the event of a disaster, cyber or other information security incident or other unanticipated event;
    - the potential for difficulties arising from outsourcing and similar third-party relationships;
    - the risks, challenges and uncertainties associated with The Hartford's expense reduction initiatives and other actions, which may include acquisitions, divestitures or restructurings;
    - the Company’s ability to protect its intellectual property and defend against claims of infringement;
- Regulatory and Legal Risks:
    - the cost and other potential effects of increased regulatory and legislative developments, including those that could adversely impact the Company’s operating costs and required capital levels;
    - unfavorable judicial or legislative developments;
    - the impact of changes in federal or state tax laws that could impact the tax-favored status of life and annuity contracts; and
    - the impact of potential changes in accounting and financial reporting requirements of the liability for future policy benefits, including how we account for our long-duration insurance contracts, including the discounting of life contingent fixed annuities.

Any forward-looking statement made by the Company in this document speaks only as of the date of the filing of this Form 10-Q. Factors or events that could cause the Company’s actual results to differ may emerge from time to time, and it is not possible for the Company to predict all of them. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise.

## Part I. FINANCIAL INFORMATION

## Item 1. Financial Statements

### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholder of
Hartford Life Insurance Company
Hartford, Connecticut

**Results of Review of Interim Financial Information**

We have reviewed the accompanying condensed consolidated balance sheet of Hartford Life Insurance Company and subsidiaries (the "Company") as of March 31, 2018, the related condensed consolidated statements of operations, comprehensive income (loss), changes in stockholder’s equity, and cash flows for the three-month periods ended March 31, 2018 and 2017, and the related notes (collectively referred to as the "interim financial information"). Based on our reviews, we are not aware of any material modifications that should be made to the accompanying interim financial information for it to be in conformity with accounting principles generally accepted in the United States of America.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheet of the Company as of December 31, 2017, and the related consolidated statements of operations, comprehensive income, changes in shareholders’ equity, and cash flows for the year then ended (not presented herein); and in our report dated March 1, 2018, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying condensed consolidated balance sheet as of December 31, 2017, is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

**Basis for Review Results**

This interim financial information is the responsibility of the Company's management. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our reviews in accordance with standards of the PCAOB. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

/s/ DELOITTE & TOUCHE LLP
Hartford, Connecticut
April 30, 2018

**HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES**

***Condensed Consolidated Statements of Operations***

| | Three Months Ended March 31, | |
|---|---|---|
| *(In millions)* | **2018** | **2017** |
| | (Unaudited) | |
| **Revenues** | | |
| Fee income and other | $ 231 | $ 221 |
| Earned premiums | 27 | 36 |
| Net investment income | 312 | 316 |
| Net realized capital gains (losses) | 21 | (46) |
| **Total revenues** | **591** | **527** |
| **Benefits, losses and expenses** | | |
| Benefits, losses and loss adjustment expenses | 325 | 330 |
| Amortization of deferred policy acquisition costs ("DAC") | 11 | 8 |
| Insurance operating costs and other expenses | 108 | 103 |
| Dividends to policyholders | 2 | — |
| **Total benefits, losses and expenses** | **446** | **441** |
| **Income before income taxes** | **145** | **86** |
| Income tax expense | 20 | 11 |
| **Net income** | **$ 125** | **$ 75** |

***See Notes to Condensed Consolidated Financial Statements***

**HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES**

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

| *(In millions)* | Three Months Ended March 31, 2018 | Three Months Ended March 31, 2017 |
|---|---|---|
| | (Unaudited) | |
| **Net income** | $ 125 | $ 75 |
| **Other comprehensive income (loss):** | | |
| Changes in net unrealized gain on securities | (304) | 44 |
| Changes in net gain on cash-flow hedging instruments | (18) | (7) |
| Changes in foreign currency translation adjustments | 1 | — |
| **OCI, net of tax** | **(321)** | **37** |
| **Comprehensive income (loss)** | **$ (196)** | **$ 112** |

***See Notes to Condensed Consolidated Financial Statements***

**HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES**

***Condensed Consolidated Balance Sheets***

| *(In millions, except for share data)* | March 31, 2018 | December 31, 2017 |
|---|---|---|
| | (Unaudited) | |
| ***Assets*** | | |
| Investments: | | |
| Fixed maturities, available-for-sale, at fair value (amortized cost of $20,515 and $20,914) | $ 21,781 | $ 22,799 |
| Fixed maturities, at fair value using the fair value option | 29 | 32 |
| Equity securities, at fair value | 124 | — |
| Equity securities, available-for-sale, at fair value (cost of $0 and $140) | — | 154 |
| Mortgage loans | 2,839 | 2,872 |
| Policy loans, at outstanding balance | 1,478 | 1,432 |
| Limited partnerships and other alternative investments | 974 | 1,001 |
| Other investments | 232 | 213 |
| Short-term investments | 1,493 | 1,094 |
| Total investments | 28,950 | 29,597 |
| Cash | 277 | 537 |
| Premiums receivable and agents' balances | 13 | 15 |
| Reinsurance recoverables | 20,701 | 20,785 |
| Deferred policy acquisition costs | 417 | 405 |
| Deferred income taxes, net | 634 | 556 |
| Other assets | 901 | 1,003 |
| Separate account assets | 108,393 | 115,834 |
| **Total assets** | **$ 160,286** | **$ 168,732** |
| ***Liabilities*** | | |
| Reserve for future policy benefits | $ 14,282 | $ 14,482 |
| Other policyholder funds and benefits payable | 28,921 | 29,228 |
| Other liabilities | 2,204 | 2,508 |
| Separate account liabilities | 108,393 | 115,834 |
| **Total liabilities** | **153,800** | **162,052** |
| **Commitments and Contingencies (Note 8)** | | |
| ***Stockholder's Equity*** | | |
| Common stock—1,000 shares authorized, issued and outstanding, par value $5,690 | 6 | 6 |
| Additional paid-in capital | 3,541 | 3,539 |
| Accumulated other comprehensive income, net of tax | 884 | 1,023 |
| Retained earnings | 2,055 | 2,112 |
| **Total stockholder's equity** | **6,486** | **6,680** |
| **Total liabilities and stockholder's equity** | **$ 160,286** | **$ 168,732** |

***See Notes to Condensed Consolidated Financial Statements***

**HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES**

***Condensed Consolidated Statements of Changes in Stockholder's Equity***

| *(In millions)* | Three Months Ended March 31, 2018 | 2017 |
|---|---|---|
| | (Unaudited) | |
| **Common Stock** | $ 6 | $ 6 |
| **Additional Paid-in Capital** | | |
| Additional Paid-in Capital, beginning of period | 3,539 | 4,935 |
| Capital contributions from (return of capital to) parent | 2 | (298) |
| Additional Paid-in Capital, end of period | 3,541 | 4,637 |
| **Retained Earnings** | | |
| Retained Earnings, beginning of period | 2,112 | 2,158 |
| Cumulative effect of accounting changes, net of tax | (182) | — |
| Adjusted balance, beginning of period | 1,930 | 2,158 |
| Net income | 125 | 75 |
| Retained Earnings, end of period | 2,055 | 2,233 |
| **Accumulated Other Comprehensive Income, net of tax** | | |
| Accumulated Other Comprehensive Income, net of tax, beginning of period | 1,023 | 722 |
| Cumulative effect of accounting changes, net of tax | 182 | — |
| Adjusted balance, beginning of period | 1,205 | 722 |
| Total other comprehensive income | (321) | 37 |
| Accumulated Other Comprehensive Income, net of tax, end of period | 884 | 759 |
| **Total Stockholder's Equity** | **$ 6,486** | **$ 7,635** |

***See Notes to Condensed Consolidated Financial Statements***

## HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES

*Condensed Consolidated Statements of Cash Flows*

| *(In millions)* | Three Months Ended March 31, 2018 | Three Months Ended March 31, 2017 |
|---|---|---|
| ***Operating Activities*** | (Unaudited) | |
| Net income | $ 125 | $ 75 |
| ***Adjustments to reconcile net income to net cash provided by operating activities:*** | | |
| Net realized capital losses (gains) | (21) | 46 |
| Amortization of deferred policy acquisition costs | 11 | 8 |
| Additions to deferred policy acquisition costs | — | (1) |
| Depreciation and amortization, net | 4 | 6 |
| Other operating activities, net | 126 | 37 |
| ***Change in assets and liabilities:*** | | |
| Decrease in reinsurance recoverables | 3 | 17 |
| Increase in accrued and deferred income taxes | 15 | 72 |
| Increase in unpaid losses and loss adjustment expenses, reserve for future policy benefits, and unearned premiums | 4 | 62 |
| Net changes in other assets and other liabilities | — | 20 |
| **Net cash provided by operating activities** | **267** | **342** |
| ***Investing Activities*** | | |
| Proceeds from the sale/maturity/prepayment of: | | |
| Fixed maturities, available-for-sale | 1,605 | 2,929 |
| Fixed maturities, fair value option | 3 | 19 |
| Equity securities, at fair value | 31 | — |
| Equity securities, available-for-sale | — | 44 |
| Mortgage loans | 98 | 128 |
| Partnerships | 50 | 38 |
| Payments for the purchase of: | | |
| Fixed maturities, available-for-sale | (1,212) | (3,068) |
| Equity securities, at fair value | (7) | — |
| Equity securities, available-for-sale | — | (161) |
| Mortgage loans | (63) | (41) |
| Partnerships | (44) | (31) |
| Net payments for derivatives | (156) | (51) |
| Net increase (decrease) in policy loans | (46) | 2 |
| Net additions to property and equipment | (1) | — |
| Net payments for short-term investments | (460) | (289) |
| Other investing activities, net | 15 | 14 |
| **Net cash used for investing activities** | **(187)** | **(467)** |
| ***Financing Activities*** | | |
| Deposits and other additions to investment and universal life-type contracts | 1,354 | 1,385 |
| Withdrawals and other deductions from investment and universal life-type contracts | (7,472) | (3,749) |
| Net transfers from separate accounts related to investment and universal life-type contracts | 5,918 | 2,057 |
| Net increase (decrease) in securities loaned or sold under agreements to repurchase | (136) | 419 |
| Return of capital to parent | — | (298) |
| Net repayments at maturity or settlement of consumer notes | (4) | (7) |
| **Net cash used for financing activities** | **(340)** | **(193)** |
| Net decrease in cash | (260) | (318) |
| Cash — beginning of period | 537 | 554 |
| **Cash — end of period** | **$ 277** | **$ 236** |
| ***Supplemental Disclosure of Cash Flow Information:*** | | |
| Income tax received | $ — | $ 56 |

***See Notes to Condensed Consolidated Financial Statements***

## 1. Basis of Presentation and Significant Accounting Policies

Hartford Life Insurance Company (together with its subsidiaries, “HLIC,” “Company,” “we” or “our”) is a provider of insurance and investment products in the United States (“U.S.”) and is a wholly-owned subsidiary of Hartford Life, Inc., a Delaware corporation ("HLI"). The Hartford Financial Services Group, Inc. (“The Hartford”) is the ultimate parent of the Company.

The Condensed Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information, which differ materially from the accounting practices prescribed by various insurance regulatory authorities. These Condensed Consolidated Financial Statements and Notes should be read in conjunction with the Consolidated Financial Statements and Notes thereto included in the Company's 2017 Form 10-K Annual Report. The results of operations for interim periods are not necessarily indicative of the results that may be expected for the full year.

The accompanying Condensed Consolidated Financial Statements and Notes are unaudited. These financial statements reflect all adjustments (generally consisting only of normal accruals) which are, in the opinion of management, necessary for the fair presentation of the financial position, results of operations and cash flows for the interim periods. The Company's significant accounting policies are summarized in Note 1 - Basis of Presentation and Significant Accounting Policies of Notes to Consolidated Financial Statements included in the Company's 2017 Form 10-K Annual Report.

### Consolidation

The Condensed Consolidated Financial Statements include the accounts of HLIC and entities the Company directly or indirectly has a controlling financial interest in, which the Company is required to consolidate. Entities in which HLIC has significant influence over the operating and financing decisions, but is not required to consolidate, are reported using the equity method. All intercompany transactions and balances between HLIC and its subsidiaries have been eliminated.

### Use of Estimates

The preparation of financial statements, in conformity with U.S. GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

The most significant estimates include those used in determining estimated gross profits used in the valuation and amortization of assets and liabilities associated with variable annuity and other universal life-type contracts; evaluation of other-than-temporary impairments on available-for-sale securities and valuation allowances on investments; living benefits required to be fair valued; valuation of investments and derivative instruments; valuation allowance on deferred tax assets; and contingencies relating to corporate litigation and regulatory matters. Certain of these estimates are particularly sensitive to market conditions, and deterioration and/or volatility in the worldwide debt or equity markets could have a material impact on the Condensed Consolidated Financial Statements.

### Reclassifications

Certain reclassifications have been made to prior year financial information to conform to the current year presentation.

### Adoption of New Accounting Standards

#### Reclassification of Effect of Tax Rate Change from AOCI to Retained Earnings

In February 2018, the FASB issued new accounting guidance for the effect on deferred tax assets and liabilities related to items recorded in accumulated other comprehensive income ("AOCI") resulting from legislated tax reform enacted on December 22, 2017. The tax reform reduced the federal tax rate applied to the Company’s deferred tax balances from 35% to 21% on enactment. Under U.S. GAAP, the Company recorded the total effect of the change in enacted tax rates on deferred tax balances as a charge to income tax expense within net income, including the change in deferred tax balances related to components of AOCI. The new accounting guidance permits the Company to reclassify the “stranded” tax effects out of AOCI and into retained earnings that resulted from recording the tax effects of unrealized investment gains at a 35% tax rate because the 14 point reduction in tax rate was recognized in net income instead of other comprehensive income. On January 1, 2018, the Company adopted the new guidance and recorded a reclassification of $193 which increased AOCI and reduced retained earnings.

#### Financial Instruments- Recognition and Measurement

On January 1, 2018, the Company adopted updated guidance issued by the FASB for the recognition and measurement of financial instruments through a cumulative effect adjustment to the opening balances of retained earnings and AOCI. The new guidance requires investments in equity securities to be measured at fair value with any changes in valuation reported in net income except for investments that are consolidated or are accounted for under the equity method of accounting. The new guidance also requires a deferred tax asset

## 1. Basis of Presentation and Significant Accounting Policies (continued)

resulting from net unrealized losses on available-for-sale fixed maturities that are recognized in AOCI to be evaluated for recoverability in combination with the Company's other deferred tax assets. Under prior guidance, the Company reported equity securities, available for sale ("AFS"), at fair value with changes in fair value reported in other comprehensive income. As of January 1, 2018, the Company reclassified from AOCI to retained earnings net unrealized gains of $11, after tax, related to equity securities having a fair value of $154. Beginning in 2018, the Company reports equity securities at fair value with changes in fair value reported in net realized capital gains and losses.

**Revenue Recognition**

On January 1, 2018, the Company adopted the FASB's updated guidance for recognizing revenue from contracts with customers, which excludes insurance contracts and financial instruments. Revenue subject to the guidance is recognized when, or as, goods or services are transferred to customers in an amount that reflects the consideration that an entity is expected to receive in exchange for those goods or services. The updated guidance is consistent with previous guidance for the Company's transactions and did not have an effect on the Company's financial position, cash flows or net income.

Revenue from customers for other than insurance and investment contracts was $25 and $15 for the three months ended March 31, 2018 and 2017, respectively. The Company earns revenues from these contracts primarily for administrative and distribution services fees from offering certain fund families as investment options in its variable annuity products. Fees are primarily based on the average daily net asset values of the funds and are recorded in the period in which the services are provided and collected monthly. Fluctuations in domestic and international markets and related investment performance, volume and mix of sales and redemptions of the funds, and other changes to the composition of assets under management are all factors that ultimately have a direct effect on fee income earned.

## 2. Fair Value Measurements

The Company carries certain financial assets and liabilities at estimated fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants. Our fair value framework includes a hierarchy that gives the highest priority to the use of quoted prices in active markets, followed by the use of market observable inputs, followed by the use of unobservable inputs. The fair value hierarchy levels are as follows:

Level 1 Fair values based primarily on unadjusted quoted prices for identical assets, or liabilities, in active markets that the Company has the ability to access at the measurement date.

Level 2 Fair values primarily based on observable inputs, other than quoted prices included in Level 1, or based on prices for similar assets and liabilities.

Level 3 Fair values derived when one or more of the significant inputs are unobservable (including assumptions about risk). With little or no observable market, the determination of fair values uses considerable judgment and represents the Company's best estimate of an amount that could be realized in a market exchange for the asset or liability. Also included are securities that are traded within illiquid markets and/or priced by independent brokers.

The Company will classify the financial asset or liability by level based upon the lowest level input that is significant to the determination of the fair value. In most cases, both observable inputs (e.g., changes in interest rates) and unobservable inputs (e.g., changes in risk assumptions) are used to determine fair values that the Company has classified within Level 3.

## 2. Fair Value Measurements (continued)

**Assets and (Liabilities) Carried at Fair Value by Hierarchy Level as of March 31, 2018**

| | Total | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
|---|---|---|---|---|
| **Assets accounted for at fair value on a recurring basis** | | | | |
| Fixed maturities, AFS | | | | |
| Asset backed securities ("ABS") | $ 829 | $ — | $ 820 | $ 9 |
| Collateralized debt obligations ("CDOs") | 780 | — | 708 | 72 |
| Commercial mortgage-backed securities ("CMBS") | 1,987 | — | 1,966 | 21 |
| Corporate | 13,424 | — | 12,977 | 447 |
| Foreign government/government agencies | 415 | — | 414 | 1 |
| Bonds of municipalities and political subdivisions ("municipal bonds") | 1,238 | — | 1,201 | 37 |
| Residential mortgage-backed securities ("RMBS") | 1,352 | — | 711 | 641 |
| U.S. Treasuries | 1,756 | 216 | 1,540 | — |
| Total fixed maturities | 21,781 | 216 | 20,337 | 1,228 |
| Fixed maturities, FVO | 29 | — | 29 | — |
| Equity securities, at fair value | 124 | 33 | 49 | 42 |
| Derivative assets | | | | |
| Credit derivatives | 4 | — | 4 | — |
| Interest rate derivatives | (2) | — | (2) | — |
| Guaranteed minimum withdrawal benefit ("GMWB") hedging instruments | 57 | — | 21 | 36 |
| Macro hedge program | 19 | — | — | 19 |
| Total derivative assets [2] | 78 | — | 23 | 55 |
| Short-term investments | 1,493 | 677 | 816 | — |
| Reinsurance recoverable for GMWB | 31 | — | — | 31 |
| Modified coinsurance reinsurance contracts | 81 | — | 81 | — |
| Separate account assets [3] | 105,063 | 70,204 | 34,818 | 41 |
| **Total assets accounted for at fair value on a recurring basis** | **$ 128,680** | **$ 71,130** | **$ 56,153** | **$ 1,397** |
| **Liabilities accounted for at fair value on a recurring basis** | | | | |
| Other policyholder funds and benefits payable | | | | |
| GMWB embedded derivative | $ (53) | $ — | $ — | $ (53) |
| Total other policyholder funds and benefits payable | (53) | — | — | (53) |
| Derivative liabilities | | | | |
| Foreign exchange derivatives | (161) | — | (161) | — |
| Interest rate derivatives | (327) | — | (299) | (28) |
| GMWB hedging instruments | 10 | — | 14 | (4) |
| Macro hedge program | 16 | — | 2 | 14 |
| Total derivative liabilities [4] | (462) | — | (444) | (18) |
| **Total liabilities accounted for at fair value on a recurring basis** | **$ (515)** | **$ —** | **$ (444)** | **$ (71)** |

## 2. Fair Value Measurements (continued)

**Assets and (Liabilities) Carried at Fair Value by Hierarchy Level as of December 31, 2017**

| | Total | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
|---|---|---|---|---|
| **Assets accounted for at fair value on a recurring basis** | | | | |
| Fixed maturities, AFS | | | | |
| ABS | $ 819 | $ — | $ 806 | $ 13 |
| CDOs | 888 | — | 815 | 73 |
| CMBS | 2,084 | — | 2,058 | 26 |
| Corporate | 14,038 | — | 13,595 | 443 |
| Foreign government/government agencies | 407 | — | 406 | 1 |
| Bonds of municipalities and political subdivisions ("municipal bonds") | 1,266 | — | 1,228 | 38 |
| RMBS | 1,427 | — | 735 | 692 |
| U.S. Treasuries | 1,870 | 284 | 1,586 | — |
| Total fixed maturities | 22,799 | 284 | 21,229 | 1,286 |
| Fixed maturities, FVO | 32 | — | 32 | — |
| Equity securities, trading [1] | 12 | 12 | — | — |
| Equity securities, AFS | 154 | 61 | 47 | 46 |
| Derivative assets | | | | |
| Credit derivatives | 1 | — | 1 | — |
| Foreign exchange derivatives | (1) | — | (1) | — |
| Interest rate derivatives | 47 | — | 47 | — |
| GMWB hedging instruments | 69 | — | 35 | 34 |
| Macro hedge program | 19 | — | — | 19 |
| Total derivative assets [2] | 135 | — | 82 | 53 |
| Short-term investments | 1,094 | 807 | 287 | — |
| Reinsurance recoverable for GMWB | 36 | — | — | 36 |
| Modified coinsurance reinsurance contracts | 55 | — | 55 | — |
| Separate account assets [3] | 113,302 | 73,538 | 38,677 | 185 |
| **Total assets accounted for at fair value on a recurring basis** | **$ 137,619** | **$ 74,702** | **$ 60,409** | **$ 1,606** |
| **Liabilities accounted for at fair value on a recurring basis** | | | | |
| Other policyholder funds and benefits payable | | | | |
| GMWB embedded derivative | $ (75) | $ — | $ — | $ (75) |
| Total other policyholder funds and benefits payable | (75) | — | — | (75) |
| Derivative liabilities | | | | |
| Foreign exchange derivatives | (187) | — | (187) | — |
| Interest rate derivatives | (403) | — | (374) | (29) |
| GMWB hedging instruments | (2) | — | (2) | — |
| Macro hedge program | 4 | — | — | 4 |
| Total derivative liabilities [4] | (588) | — | (563) | (25) |
| **Total liabilities accounted for at fair value on a recurring basis** | **$ (663)** | **$ —** | **$ (563)** | **$ (100)** |

*[1] Included in other investments on the Condensed Consolidated Balance Sheets.*

*[2] Includes OTC and OTC-cleared derivative instruments in a net positive fair value position after consideration of the accrued interest and impact of collateral posting requirements which may be imposed by agreements, clearing house rules and applicable law. See footnote 4 to this table for derivative liabilities.*

*[3] Approximately $2.8 billion and $2.5 billion of investment sales receivable, as of March 31, 2018 and December 31, 2017, respectively, are excluded from this disclosure requirement because they are trade receivables in the ordinary course of business where the carrying amount approximates fair value. Included in the total fair value amount are $0.5 billion and $0.9 billion of investments, as of March 31, 2018 and December 31, 2017, respectively, for which the fair value is estimated using the net asset value per unit as a practical expedient which are excluded from the disclosure requirement to classify amounts in the fair value hierarchy.*

*[4] Includes OTC and OTC-cleared derivative instruments in a net negative fair value position (derivative liability) after consideration of the accrued interest and impact of collateral posting requirements, which may be imposed by agreements, clearing house rules and applicable law.*

## 2. Fair Value Measurements (continued)

### Fixed Maturities, Equity Securities, Short-term Investments, and Free-standing Derivatives

### Valuation Techniques

The Company generally determines fair values using valuation techniques that use prices, rates, and other relevant information evident from market transactions involving identical or similar instruments. Valuation techniques also include, where appropriate, estimates of future cash flows that are converted into a single discounted amount using current market expectations. The Company uses a "waterfall" approach comprised of the following pricing sources and techniques, which are listed in priority order:

- Quoted prices, unadjusted, for identical assets or liabilities in active markets, which are classified as Level 1.
- Prices from third-party pricing services, which primarily utilize a combination of techniques. These services utilize recently reported trades of identical, similar, or benchmark securities making adjustments for market observable inputs available through the reporting date. If there are no recently reported trades, they may use a discounted cash flow technique to develop a price using expected cash flows based upon the anticipated future performance of the underlying collateral discounted at an estimated market rate. Both techniques develop prices that consider the time value of future cash flows and provide a margin for risk, including liquidity and credit risk. Most prices provided by third-party pricing services are classified as Level 2 because the inputs used in pricing the securities are observable. However, some securities that are less liquid or trade less actively are classified as Level 3. Additionally, certain long-dated securities, including certain municipal securities, foreign government/government agency securities, and bank loans, include benchmark interest rate or credit spread assumptions that are not observable in the marketplace and are thus classified as Level 3.
- Internal matrix pricing, which is a valuation process internally developed for private placement securities for which the Company is unable to obtain a price from a third-party pricing service. Internal pricing matrices determine credit spreads that, when combined with risk-free rates, are applied to contractual cash flows to develop a price. The Company develops credit spreads using market based data for public securities adjusted for credit spread differentials between public and private securities, which are obtained from a survey of multiple private placement brokers. The market-based reference credit spread considers the issuer's financial strength and term to maturity, using an independent public security index and trade information, while the credit spread differential considers the non-public nature of the security. Securities priced using internal matrix pricing are classified as Level 2 because the inputs are observable or can be corroborated with observable data.
- Independent broker quotes, which are typically non-binding and use inputs that can be difficult to corroborate with observable market based data. Brokers may use present value techniques using assumptions specific to the security types, or they may use recent transactions of similar securities. Due to the lack of transparency in the process that brokers use to develop prices, valuations that are based on independent broker quotes are classified as Level 3.

The fair value of free-standing derivative instruments are determined primarily using a discounted cash flow model or option model technique and incorporate counterparty credit risk. In some cases, quoted market prices for exchange-traded and OTC-cleared derivatives may be used and in other cases independent broker quotes may be used. The pricing valuation models primarily use inputs that are observable in the market or can be corroborated by observable market data. The valuation of certain derivatives may include significant inputs that are unobservable, such as volatility levels, and reflect the Company's view of what other market participants would use when pricing such instruments. Unobservable market data is used in the valuation of customized derivatives that are used to hedge certain GMWB variable annuity riders. See the section "GMWB Embedded, Customized, and Reinsurance Derivatives" below for further discussion of the valuation model used to value these customized derivatives.

### Valuation Controls

The fair value process for investments is monitored by the Valuation Committee, which is a cross-functional group of senior management within the Company that meets at least quarterly. The purpose of the committee is to oversee the pricing policy and procedures, as well as to approve changes to valuation methodologies and pricing sources. Controls and procedures used to assess third-party pricing services are reviewed by the Valuation Committee, including the results of annual due-diligence reviews.

There are also two working groups under the Valuation Committee: a Securities Fair Value Working Group ("Securities Working Group") and a Derivatives Fair Value Working Group ("Derivatives Working Group"). The working groups, which include various investment, operations, accounting and risk management professionals, meet monthly to review market data trends, pricing and trading statistics and results, and any proposed pricing methodology changes.

## 2. Fair Value Measurements (continued)

The Securities Working Group reviews prices received from third parties to ensure that the prices represent a reasonable estimate of the fair value. The group considers trading volume, new issuance activity, market trends, new regulatory rulings and other factors to determine whether the market activity is significantly different than normal activity in an active market. A dedicated pricing unit follows up with trading and investment sector professionals and challenges prices of third-party pricing services when the estimated assumptions used differ from what the unit believes a market participant would use. If the available evidence indicates that pricing from third-party pricing services or broker quotes is based upon transactions that are stale or not from trades made in an orderly market, the Company places little, if any, weight on the third party service's transaction price and will estimate fair value using an internal process, such as a pricing matrix.

The Derivatives Working Group reviews the inputs, assumptions and methodologies used to ensure that the prices represent a reasonable estimate of the fair value. A dedicated pricing team works directly with investment sector professionals to investigate the impacts of changes in the market environment on prices or valuations of derivatives. New models and any changes to current models are required to have detailed documentation and are validated to a second source. The model validation documentation and results of validation are presented to the Valuation Committee for approval.

The Company conducts other monitoring controls around securities and derivatives pricing including, but not limited to, the following:

- Review of daily price changes over specific thresholds and new trade comparison to third-party pricing services.
- Daily comparison of OTC derivative market valuations to counterparty valuations.
- Review of weekly price changes compared to published bond prices of a corporate bond index.
- Monthly reviews of price changes over thresholds, stale prices, missing prices, and zero prices.
- Monthly validation of prices to a second source for securities in most sectors and for certain derivatives.

In addition, The Hartford's enterprise-wide Operational Risk Management function, led by the Chief Risk Officer, is responsible for model risk management and provides an independent review of the suitability and reliability of model inputs, as well as an analysis of significant changes to current models.

**Valuation Inputs**

Quoted prices for identical assets in active markets are considered Level 1 and consist of on-the-run U.S. Treasuries, money market funds, exchange-traded equity securities, open-ended mutual funds, short-term investments, and exchange traded futures and option contracts.

**HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES**
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

## 2. Fair Value Measurements (continued)

**Valuation Inputs Used in Level 2 and 3 Measurements for Securities and Freestanding Derivatives**

| Level 2<br>Primary Observable Inputs | Level 3<br>Primary Unobservable Inputs |
|---|---|
| **Fixed Maturity Investments** | |
| **Structured securities (includes ABS, CDOs CMBS and RMBS)** | |
| • Benchmark yields and spreads<br>• Monthly payment information<br>• Collateral performance, which varies by vintage year and includes delinquency rates, loss severity rates and refinancing assumptions<br>• Credit default swap indices<br><br>Other inputs for ABS and RMBS:<br>• Estimate of future principal prepayments, derived based on the characteristics of the underlying structure<br>• Prepayment speeds previously experienced at the interest rate levels projected for the collateral | • Independent broker quotes<br>• Credit spreads beyond observable curve<br>• Interest rates beyond observable curve<br><br>Other inputs for less liquid securities or those that trade less actively, including subprime RMBS:<br>• Estimated cash flows<br>• Credit spreads, which include illiquidity premium<br>• Constant prepayment rates<br>• Constant default rates<br>• Loss severity |
| **Corporates** | |
| • Benchmark yields and spreads<br>• Reported trades, bids, offers of the same or similar securities<br>• Issuer spreads and credit default swap curves<br><br>Other inputs for investment grade privately placed securities that utilize internal matrix pricing :<br>• Credit spreads for public securities of similar quality, maturity, and sector, adjusted for non-public nature | • Independent broker quotes<br>• Credit spreads beyond observable curve<br>• Interest rates beyond observable curve<br><br>Other inputs for below investment grade privately placed securities:<br>• Independent broker quotes<br>• Credit spreads for public securities of similar quality, maturity, and sector, adjusted for non-public nature |
| **U.S Treasuries, Municipals, and Foreign government/government agencies** | |
| • Benchmark yields and spreads<br>• Issuer credit default swap curves<br>• Political events in emerging market economies<br>• Municipal Securities Rulemaking Board reported trades and material event notices<br>• Issuer financial statements | • Independent broker quotes<br>• Credit spreads beyond observable curve<br>• Interest rates beyond observable curve |
| **Equity Securities** | |
| • Quoted prices in markets that are not active | • For privately traded equity securities, internal discounted cash flow models utilizing earnings multiples or other cash flow assumptions that are not observable |
| **Short Term Investments** | |
| • Benchmark yields and spreads<br>• Reported trades, bids, offers<br>• Issuer spreads and credit default swap curves<br>• Material event notices and new issue money market rates | Not applicable |
| **Derivatives** | |
| **Credit derivatives** | |
| • Swap yield curve<br>• Credit default swap curves | Not applicable |
| **Equity derivatives** | |
| • Equity index levels<br>• Swap yield curve | • Independent broker quotes<br>• Equity volatility |
| **Foreign exchange derivatives** | |
| • Swap yield curve<br>• Currency spot and forward rates<br>• Cross currency basis curves | Not applicable |
| **Interest rate derivatives** | |
| • Swap yield curve | • Independent broker quotes<br>• Interest rate volatility |

**HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES**
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

## 2. Fair Value Measurements (continued)

**Significant Unobservable Inputs for Level 3 - Securities**

| Assets accounted for at fair value on a recurring basis | Fair Value | Predominant Valuation Technique | Significant Unobservable Input | Minimum | Maximum | Weighted Average [1] | Impact of Increase in In put on Fair Value [2] |
|---|---|---|---|---|---|---|---|
| **As of March 31, 2018** | | | | | | | |
| CMBS [3] | $ 14 | Discounted cash flows | Spread (encompasses prepayment, default risk and loss severity) | 9bps | 1,816bps | 433bps | Decrease |
| Corporate [4] | $ 212 | Discounted cash flows | Spread | 112bps | 874bps | 280bps | Decrease |
| Municipal | $ 21 | Discounted cash flows | Spread | 199bps | 240bps | 224bps | Decrease |
| RMBS | $ 641 | Discounted cash flows | Spread | 6bps | 428bps | 75bps | Decrease |
| | | | Constant prepayment rate | —% | 25% | 6% | Decrease [5] |
| | | | Constant default rate | —% | 7% | 4% | Decrease |
| | | | Loss severity | —% | 100% | 60% | Decrease |
| **As of December 31, 2017** | | | | | | | |
| CMBS [3] | $ 15 | Discounted cash flows | Spread (encompasses prepayment, default risk and loss severity) | 9bps | 1,816bps | 457bps | Decrease |
| Corporate [4] | $ 190 | Discounted cash flows | Spread | 103bps | 1,000bps | 355bps | Decrease |
| Municipal [3] | $ 22 | Discounted cash flows | Spread | 192bps | 250bps | 228bps | Decrease |
| RMBS [3] | $ 692 | Discounted cash flows | Spread | 24bps | 463bps | 77bps | Decrease |
| | | | Constant prepayment rate | —% | 25% | 6% | Decrease [5] |
| | | | Constant default rate | —% | 7% | 4% | Decrease |
| | | | Loss severity | —% | 100% | 65% | Decrease |

*[1] The weighted average is determined based on the fair value of the securities.*
*[2] Conversely, the impact of a decrease in input would have the opposite impact to the fair value as that presented in the table.*
*[3] Excludes securities for which the Company based fair value on broker quotations.*
*[4] Excludes securities for which the Company bases fair value on broker quotations; however, included are broker priced lower-rated private placement securities for which the Company receives spread and yield information to corroborate the fair value.*
*[5] Decrease for above market rate coupons and increase for below market rate coupons.*

## 2. Fair Value Measurements (continued)

**Significant Unobservable Inputs for Level 3 - Freestanding Derivatives**

| | Fair Value | Predominant Valuation Technique | Significant Unobservable Input | Minimum | Maximum | Impact of Increase in Input on Fair Value [1] |
|---|---|---|---|---|---|---|
| **As of March 31, 2018** | | | | | | |
| Interest rate derivatives | | | | | | |
| Interest rate swaps | $(28) | Discounted cash flows | Swap curve beyond 30 years | 3% | 3% | Decrease |
| GMWB hedging instruments | | | | | | |
| Equity variance swaps | $(25) | Option model | Equity volatility | 21% | 21% | Increase |
| Customized swaps | $56 | Discounted cash flows | Equity volatility | 14% | 30% | Increase |
| Interest rate swaption | $1 | Option model | Interest rate volatility | 3% | 3% | Increase |
| Macro hedge program [2] | | | | | | |
| Equity options | $38 | Option model | Equity volatility | 19% | 29% | Increase |
| **As of December 31, 2017** | | | | | | |
| Interest rate derivatives | | | | | | |
| Interest rate swaps | $ (29) | Discounted cash flows | Swap curve beyond 30 years | 2% | 3% | Decrease |
| GMWB hedging instruments | | | | | | |
| Equity variance swaps | $ (26) | Option model | Equity volatility | 19% | 19% | Increase |
| Equity options | $ 1 | Option model | Equity volatility | 27% | 30% | Increase |
| Customized swaps | $ 59 | Discounted cash flows | Equity volatility | 7% | 30% | Increase |
| Macro hedge program | | | | | | |
| Equity options | $ 29 | Option model | Equity volatility | 18% | 31% | Increase |

*[1] Conversely, the impact of a decrease in input would have the opposite impact to the fair value as that presented in the table. Changes are based on long positions, unless otherwise noted. Changes in fair value will be inversely impacted for short positions.*

*[2] Excludes derivatives for which the Company bases fair value on broker quotations.*

The tables above exclude the portion of ABS, index options and certain corporate securities for which fair values are predominately based on independent broker quotes. While the Company does not have access to the significant unobservable inputs that independent brokers may use in their pricing process, the Company believes brokers likely use inputs similar to those used by the Company and third-party pricing services to price similar instruments. As such, in their pricing models, brokers likely use estimated loss severity rates, prepayment rates, constant default rates and credit spreads. Therefore, similar to non-broker priced securities, increases in these inputs would generally cause fair values to decrease. For the three months ended March 31, 2018, no significant adjustments were made by the Company to broker prices received.

***Transfers between Levels***

Transfers of securities among the levels occur at the beginning of the reporting period. The amount of transfers from Level 1 to Level 2 was $283 and $230, for three months ended March 31, 2018 and 2017, respectively, which represented previously on-the-run U.S.Treasury securities that are now off-the-run. For the three months ended March 31, 2018 and 2017, there were no transfers from Level 2 to Level 1. See the fair value roll-forward tables for the three months ended March 31, 2018 and 2017, for the transfers into and out of Level 3.

## 2. Fair Value Measurements (continued)

### GMWB Embedded, Customized and Reinsurance Derivatives

| | |
|---|---|
| *GMWB Embedded Derivatives* | The Company formerly offered certain variable annuity products with GMWB riders that provide the policyholder with a guaranteed remaining balance ("GRB") which is generally equal to premiums less withdrawals. If the policyholder's account value is reduced to a specified level through a combination of market declines and withdrawals but the GRB still has value, the Company is obligated to continue to make annuity payments to the policyholder until the GRB is exhausted. When payments of the GRB are not life-contingent, the GMWB represents an embedded derivative carried at fair value reported in other policyholder funds and benefits payable in the Consolidated Balance Sheets with changes in fair value reported in net realized capital gains and losses. |
| *Free-standing Customized Derivatives* | The Company holds free-standing customized derivative contracts to provide protection from certain capital markets risks for the remaining term of specified blocks of non-reinsured GMWB riders. These customized derivatives are based on policyholder behavior assumptions specified at the inception of the derivative contracts. The Company retains the risk for differences between assumed and actual policyholder behavior and between the performance of the actively managed funds underlying the separate accounts and their respective indices. These derivatives are reported in the Consolidated Balance Sheets within other investments or other liabilities, as appropriate, after considering the impact of master netting agreements. |
| *GMWB Reinsurance Derivative* | The Company has reinsurance arrangements in place to transfer a portion of its risk of loss due to GMWB. These arrangements are recognized as derivatives carried at fair value and reported in reinsurance recoverables in the Consolidated Balance Sheets. Changes in the fair value of the reinsurance agreements are reported in net realized capital gains and losses. |

**Valuation Techniques**

Fair values for GMWB embedded derivatives, free-standing customized derivatives and reinsurance derivatives are classified as Level 3 in the fair value hierarchy and are calculated using internally developed models that utilize significant unobservable inputs because active, observable markets do not exist for these items. In valuing the GMWB embedded derivative, the Company attributes to the derivative a portion of the expected fees to be collected over the expected life of the contract from the contract holder equal to the present value of future GMWB claims. The excess of fees collected from the contract holder in the current period over the portion of fees attributed to the embedded derivative in the current period are associated with the host variable annuity contract and reported in fee income.

**Valuation Controls**

Oversight of the Company's valuation policies and processes for GMWB embedded, reinsurance, and customized derivatives is performed by a multidisciplinary group comprised of finance, actuarial and risk management professionals. This multidisciplinary group reviews and approves changes and enhancements to the Company's valuation model as well as associated controls.

**Valuation Inputs**

The fair value for each of the non-life contingent GMWBs, the free-standing customized derivatives and the GMWB reinsurance derivative is calculated as an aggregation of the following components: Best Estimate Claim Payments; Credit Standing Adjustment; and Margins. The Company believes the aggregation of these components results in an amount that a market participant in an active liquid market would require, if such a market existed, to assume the risks associated with the guaranteed minimum benefits and the related reinsurance and customized derivatives. Each component described in the following discussion is unobservable in the marketplace and requires subjectivity by the Company in determining its value.

Best Estimate Claim Payments

The Best Estimate Claim Payments are calculated based on actuarial and capital market assumptions related to projected cash flows, including the present value of benefits and related contract charges, over the lives of the contracts, incorporating unobservable inputs including expectations concerning policyholder behavior. These assumptions are input into a stochastic risk neutral scenario process that is used to determine the valuation and involves numerous estimates and subjective judgments regarding a number of variables.

The Company monitors various aspects of policyholder behavior and may modify certain of its assumptions, including living benefit lapses and withdrawal rates, if credible emerging data indicates that changes are warranted. In addition, the Company will continue to evaluate policyholder behavior assumptions should we implement further initiatives to reduce the size of the variable annuity business. At a minimum, all policyholder behavior assumptions are reviewed and updated at least annually as part of the Company's annual fourth-quarter comprehensive study to refine its estimate of future gross profits. In addition, the Company recognizes non-market-based updates driven by the relative outperformance (underperformance) of the underlying actively managed funds as compared to their respective indices.

## 2. Fair Value Measurements (continued)

Credit Standing Adjustment

The credit standing adjustment is an estimate of the reduction to the fair value that market participants would require in determining fair value to reflect the risk that GMWB benefit obligations or the GMWB reinsurance recoverables will not be fulfilled. The Company incorporates a blend of observable Company and reinsurer credit default spreads from capital markets, adjusted for market recoverability.

Margins

The behavior risk margin adds a margin that market participants would require, in determining fair value, for the risk that the Company's assumptions about policyholder behavior could differ from actual experience. The behavior risk margin is calculated by taking the difference between adverse policyholder behavior assumptions and best estimate assumptions.

**Valuation Inputs Used in Levels 2 and 3 Measurements for GMWB Embedded, Customized and Reinsurance Derivatives**

| Level 2<br>Primary Observable Inputs | Level 3<br>Primary Unobservable Inputs |
|---|---|
| • Risk-free rates as represented by the Eurodollar futures, LIBOR deposits and swap rates to derive forward curve rates<br>• Correlations of 10 years of observed historical returns across underlying well-known market indices<br>• Correlations of historical index returns compared to separate account fund returns<br>• Equity index levels | • Market implied equity volatility assumptions<br><br>Assumptions about policyholder behavior, including:<br>• Withdrawal utilization<br>• Withdrawal rates<br>• Lapse rates<br>• Reset elections |

**Significant Unobservable Inputs for Level 3 GMWB Embedded Customized and Reinsurance Derivatives**

| As of March 31, 2018 | | | |
|---|---|---|---|
| **Significant Unobservable Input** | **Unobservable Inputs (Minimum)** | **Unobservable Inputs (Maximum)** | **Impact of Increase in Input on Fair Value Liability [1]** |
| Withdrawal Utilization [2] | 15% | 100% | Increase |
| Withdrawal Rates [3] | —% | 8% | Increase |
| Lapse Rates [4] | —% | 40% | Decrease |
| Reset Elections [5] | 30% | 75% | Increase |
| Equity Volatility [6] | 14% | 30% | Increase |

| As of December 31, 2017 | | | |
|---|---|---|---|
| **Significant Unobservable Input** | **Unobservable Inputs (Minimum)** | **Unobservable Inputs (Maximum)** | **Impact of Increase in Input on Fair Value Liability [1]** |
| Withdrawal Utilization [2] | 15% | 100% | Increase |
| Withdrawal Rates [3] | —% | 8% | Increase |
| Lapse Rates [4] | —% | 40% | Decrease |
| Reset Elections [5] | 30% | 75% | Increase |
| Equity Volatility [6] | 7% | 30% | Increase |

*[1] Conversely, the impact of a decrease in input would have the opposite impact to the fair value as that presented in the table.*
*[2] Range represents assumed cumulative percentages of policyholders taking withdrawals.*
*[3] Range represents assumed cumulative annual amount withdrawn by policyholders.*
*[4] Range represents assumed annual percentages of full surrender of the underlying variable annuity contracts across all policy durations for in force business.*
*[5] Range represents assumed cumulative percentages of policyholders that would elect to reset their guaranteed benefit base.*
*[6] Range represents implied market volatilities for equity indices based on multiple pricing sources.*

## 2. Fair Value Measurements (continued)

***Separate Account Assets***

Separate account assets are primarily invested in mutual funds. Other separate account assets include fixed maturities, limited partnerships, equity securities, short-term investments and derivatives that are valued in the same manner, and using the same pricing sources and inputs, as those investments held by the Company. For limited partnerships in which fair value represents the separate account's share of the NAV, 51% were subject to significant liquidation restrictions as of March 31, 2018 and December 31, 2017. Total limited partnerships that do not allow any form of redemption were 0% and 21% as of March 31, 2018 and December 31, 2017, respectively. Separate account assets classified as Level 3 primarily include subprime RMBS and commercial mortgage loans.

***Level 3 Assets and Liabilities Measured at Fair Value on a Recurring Basis Using Significant Unobservable Inputs***

The Company uses derivative instruments to manage the risk associated with certain assets and liabilities. However, the derivative instrument may not be classified with the same fair value hierarchy level as the associated asset or liability. Therefore, the realized and unrealized gains and losses on derivatives reported in the Level 3 roll-forward may be offset by realized and unrealized gains and losses of the associated assets and liabilities in other line items of the financial statements.

**Fair Value Roll-forwards for Financial Instruments Classified as Level 3 for the Three Months Ended March 31, 2018**

| | | Total realized/ unrealized gains (losses) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Fair value as of January 1, 2018 | Included in net income [1] [2] [6] | Included in OCI [3] | Purchases | Settlements | Sales | Transfers into Level 3 [4] | Transfers out of Level 3 [4] | Fair value as of March 31, 2018 |
| **Assets** | | | | | | | | | |
| Fixed Maturities, AFS | | | | | | | | | |
| ABS | $ 13 | $ — | $ — | $ — | $ (1) | $ — | $ — | $ (3) | $ 9 |
| CDOs | 73 | — | — | 5 | — | — | — | (6) | 72 |
| CMBS | 26 | — | — | — | (1) | (4) | — | — | 21 |
| Corporate | 443 | — | (7) | 20 | (13) | (30) | 54 | (20) | 447 |
| Foreign Govt./Govt. Agencies | 1 | — | — | — | — | — | — | — | 1 |
| Municipal | 38 | — | (1) | — | — | — | — | — | 37 |
| RMBS | 692 | — | (2) | 3 | (47) | — | — | (5) | 641 |
| Total Fixed Maturities, AFS | 1,286 | — | (10) | 28 | (62) | (34) | 54 | (34) | 1,228 |
| Equity Securities, at fair value | 46 | 10 | — | — | — | (14) | — | — | 42 |
| Freestanding Derivatives | | | | | | | | | |
| Interest rate | (29) | 1 | — | — | — | — | — | — | (28) |
| GMWB hedging instruments | 34 | — | — | — | — | (2) | — | — | 32 |
| Macro hedge program | 23 | 10 | — | — | — | — | — | — | 33 |
| Total Freestanding Derivatives [5] | 28 | 11 | — | — | — | (2) | — | — | 37 |
| Reinsurance Recoverable for GMWB | 36 | (8) | — | — | 3 | — | — | — | 31 |
| Separate Accounts | 185 | — | — | 10 | — | (162) | 17 | (9) | 41 |
| **Total Assets** | **$ 1,581** | **$ 13** | **$ (10)** | **$ 38** | **$ (59)** | **$ (212)** | **$ 71** | **$ (43)** | **$ 1,379** |
| **(Liabilities)** | | | | | | | | | |
| Other Policyholder Funds and Benefits Payable | | | | | | | | | |
| Guaranteed Withdrawal Benefits | $ (75) | $ 39 | $ — | $ — | $ (17) | $ — | $ — | $ — | $ (53) |
| Total Other Policyholder Funds and Benefits Payable | (75) | 39 | — | — | (17) | — | — | — | (53) |
| **Total Liabilities** | **$ (75)** | **$ 39** | **$ —** | **$ —** | **$ (17)** | **$ —** | **$ —** | **$ —** | **$ (53)** |

**HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES**
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

## 2. Fair Value Measurements (continued)

**Fair Value Roll-forwards for Financial Instruments Classified as Level 3 for the Three Months Ended March 31, 2017**

| | | Total realized/unrealized gains (losses) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Fair value as of January 1, 2017 | Included in net income [1] [2] [6] | Included in OCI [3] | Purchases | Settlements | Sales | Transfers into Level 3 [4] | Transfers out of Level 3 [4] | Fair value as of March 31, 2017 |
| **Assets** | | | | | | | | | |
| Fixed Maturities, AFS | | | | | | | | | |
| ABS | $ 37 | $ — | $ — | $ 12 | $ (2) | $ — | $ 3 | $ (6) | $ 44 |
| CDOs | 260 | — | 1 | — | — | — | — | (62) | 199 |
| CMBS | 21 | — | — | 28 | (1) | — | — | (3) | 45 |
| Corporate | 566 | 5 | 11 | 69 | 1 | (63) | 5 | (37) | 557 |
| Foreign Govt./Govt. Agencies | 17 | — | 1 | — | (1) | — | — | — | 17 |
| Municipal | 72 | — | 2 | — | — | (1) | — | — | 73 |
| RMBS | 711 | — | 2 | 85 | (41) | — | — | — | 757 |
| Total Fixed Maturities, AFS | 1,684 | 5 | 17 | 194 | (44) | (64) | 8 | (108) | 1,692 |
| Equity Securities, AFS | 44 | — | (2) | 2 | — | — | — | — | 44 |
| Freestanding Derivatives | | | | | | | | | |
| Interest rate | (30) | 1 | — | — | — | — | — | — | (29) |
| GMWB hedging instruments | 81 | (35) | — | — | — | — | — | — | 46 |
| Macro hedge program | 167 | (8) | — | — | — | — | — | — | 159 |
| Total Freestanding Derivatives [5] | 218 | (42) | — | — | — | — | — | — | 176 |
| Reinsurance Recoverable for GMWB | 73 | (17) | — | — | 4 | — | — | — | 60 |
| Separate Accounts | 201 | — | 3 | 97 | (4) | (8) | 3 | (15) | 277 |
| **Total Assets** | **$ 2,220** | **$ (54)** | **$ 18** | **$ 293** | **$ (44)** | **$ (72)** | **$ 11** | **$ (123)** | **$ 2,249** |
| **(Liabilities)** | | | | | | | | | |
| Other Policyholder Funds and Benefits Payable | | | | | | | | | |
| Guaranteed Withdrawal Benefits | $ (241) | $ 100 | $ — | $ — | $ (16) | $ — | $ — | $ — | $ (157) |
| Equity Linked Notes | (33) | (3) | — | — | — | — | — | — | (36) |
| Total Other Policyholder Funds and Benefits Payable | (274) | 97 | — | — | (16) | — | — | — | (193) |
| **Total Liabilities** | **$ (274)** | **$ 97** | **$ —** | **$ —** | **$ (16)** | **$ —** | **$ —** | **$ —** | **$ (193)** |

*[1] The Company classifies realized and unrealized gains (losses) on GMWB reinsurance derivatives and GMWB embedded derivatives as unrealized gains (losses) for purposes of disclosure in this table because it is impracticable to track on a contract-by-contract basis the realized gains (losses) for these derivatives and embedded derivatives.*

*[2] Amounts in these rows are generally reported in net realized capital gains (losses). The realized/unrealized gains (losses) included in net income for separate account assets are offset by an equal amount for separate account liabilities, which results in a net zero impact on net income for the Company. All amounts are before income taxes and amortization of DAC.*

*[3] All amounts are before income taxes and amortization of DAC.*

*[4] Transfers in and/or (out) of Level 3 are primarily attributable to the availability of market observable information and the re-evaluation of the observability of pricing inputs.*

*[5] Derivative instruments are reported in this table on a net basis for asset (liability) positions and reported in the Consolidated Balance Sheets in other investments and other liabilities.*

*[6] Includes both market and non-market impacts in deriving realized and unrealized gains (losses).*

## 2. Fair Value Measurements (continued)

**Changes in Unrealized Gains (Losses) Included in Net Income for Financial Instruments Classified as Level 3 Still Held at End of Period**

| | Three months ended March 31, | |
|---|---|---|
| | 2018 [1][2] | 2017 [1][2] |
| **Assets** | | |
| Freestanding Derivatives | | |
| Interest Rate | 1 | — |
| GMWB hedging instruments | (2) | (36) |
| Macro hedge program | 12 | (8) |
| Total Freestanding Derivatives | 11 | (44) |
| Reinsurance Recoverable for GMWB | (8) | (17) |
| Separate Accounts | — | — |
| **Total Assets** | $ 3 | $ **(61)** |
| **(Liabilities)** | | |
| Other Policyholder Funds and Benefits Payable | | |
| Guaranteed Withdrawal Benefits | $ 39 | $ 100 |
| Equity Linked Notes | — | (3) |
| Total Other Policyholder Funds and Benefits Payable | 39 | 97 |
| **Total Liabilities** | **$ 39** | **$ 97** |

*[1] All amounts in these rows are reported in net realized capital gains (losses). The realized/unrealized gains (losses) included in net income for separate account assets are offset by an equal amount for separate account liabilities, which results in a net zero impact on net income for the Company. All amounts are before income taxes and amortization of DAC.*

*[2] Amounts presented are for Level 3 only and therefore may not agree to other disclosures included herein.*

***Fair Value Option***

The Company has elected the fair value option for certain securities that contain embedded credit derivatives with underlying credit risk, related to residential real estate, and these securities are included within Fixed Maturities, FVO on the Consolidated Balance Sheets.

The Company also previously elected the fair value option for certain equity securities in order to align the accounting with total return swap contracts that hedged the risk associated with the investments. The swaps did not qualify for hedge accounting and the change in value of both the equity securities and the total return swaps were recorded in net realized capital gains and losses. These equity securities were classified within equity securities, AFS on the Consolidated Balance Sheets. Income earned from FVO securities was recorded in net investment income and changes in fair value were recorded in net realized capital gains and losses. The Company did not hold any of these equity securities as of March 31, 2018.

**Changes in Fair Value of Assets using Fair Value Option**

| | Three Months Ended March 31, | |
|---|---|---|
| | 2018 | 2017 |
| **Assets** | | |
| Fixed maturities, FVO | | |
| RMBS | $ — | $ 1 |
| **Total fixed maturities, FVO** | **—** | **1** |
| **Equity, FVO** | | **(1)** |
| **Total realized capital gains (losses)** | **$ —** | **$ —** |

## 2. Fair Value Measurements (continued)

**Fair Value of Assets and Liabilities using the Fair Value Option**

| | March 31, 2018 | December 31, 2017 |
|---|---|---|
| **Assets** | | |
| Fixed maturities, FVO | | |
| RMBS | $ 29 | $ 32 |
| **Total fixed maturities, FVO** | **$ 29** | **$ 32** |

***Financial Instruments Not Carried at Fair Value***

**Financial Assets and Liabilities Not Carried at Fair Value**

| | Fair Value Hierarchy Level | Carrying Amount | Fair Value |
|---|---|---|---|
| | **March 31, 2018** | | |
| **Assets** | | | |
| Policy loans | Level 3 | $ 1,478 | $ 1,478 |
| Mortgage loans | Level 3 | $ 2,839 | $ 2,865 |
| **Liabilities** | | | |
| Other policyholder funds and benefits payable [1] | Level 3 | $ 5,882 | $ 6,017 |
| Consumer notes [2] [3] | Level 3 | $ 4 | $ 4 |
| Assumed investment contracts [3] | Level 3 | $ 366 | $ 381 |
| | **December 31, 2017** | | |
| **Assets** | | | |
| Policy loans | Level 3 | $ 1,432 | $ 1,432 |
| Mortgage loans | Level 3 | $ 2,872 | $ 2,941 |
| **Liabilities** | | | |
| Other policyholder funds and benefits payable [1] | Level 3 | $ 5,905 | $ 6,095 |
| Consumer notes [2] [3] | Level 3 | $ 8 | $ 8 |
| Assumed investment contracts [3] | Level 3 | $ 342 | $ 361 |

*[1] Excludes group accident and health and universal life insurance contracts, including corporate owned life insurance.*
*[2] Excludes amounts carried at fair value and included in preceding disclosures.*
*[3] Included in other liabilities in the Condensed Consolidated Balance Sheets.*

## 3. Investments

**Net Realized Capital Gains (Losses)**

| | Three Months Ended March 31, | |
|---|---|---|
| *(Before tax)* | **2018** | **2017** |
| Gross gains on sales | $ 21 | $ 50 |
| Gross losses on sales | (17) | (29) |
| Equity Securities [1] | 11 | — |
| Results of variable annuity hedge program | | |
| GMWB derivatives, net | 4 | 18 |
| Macro hedge program | 18 | (86) |
| Total results of variable annuity hedge program | 22 | (68) |
| Transactional foreign currency revaluation | (14) | (18) |
| Non-qualifying foreign currency derivatives | 17 | 17 |
| Other, net [2] | (19) | 2 |
| **Net realized capital losses** | **$ 21** | **$ (46)** |

*[1] Effective January 1, 2018, with adoption of new accounting standards for equity securities, include all changes in fair value and trading gains and losses for equity securities at fair value.*
*[2] Includes gains (losses) on non-qualifying derivatives, excluding foreign currency derivatives, of $(5) and $3, respectively, for the three months ended March 31, 2018 and 2017.*

Net realized capital gains and losses from investment sales are reported as a component of revenues and are determined on a specific identification basis. Before tax, net gains and losses on sales and impairments previously reported as unrealized gains or losses in AOCI were $4 and $21 for the three months ended March 31, 2018 and March 31, 2017, respectively. Proceeds from sales of AFS securities totaled $1.1 billion and $2.4 billion for three months ended March 31, 2018 and March 31, 2017, respectively. Effective January 1, 2018, with adoption of the new accounting standards for equity securities, the proceeds from sales of AFS securities no longer includes equity securities.

The net unrealized gain (loss) on equity securities included in net realized capital gains (losses) related to equity securities still held as of March 31, 2018, was immaterial for the the three months ended March 31, 2018. Prior to the period ended March 31, 2018, these amounts were included in gross unrealized gains (losses) in AOCI.

**Recognition and Presentation of Other-Than-Temporary Impairments**

The Company will record an other-than-temporary impairment (“OTTI”) for fixed maturities if the Company intends to sell or it is more likely than not that the Company will be required to sell the security before a recovery in value. A corresponding charge is recorded in net realized capital losses equal to the difference between the fair value and amortized cost basis of the security.

The Company will also record an OTTI for those fixed maturities for which the Company does not expect to recover the entire amortized cost basis. For these securities, the excess of the amortized cost basis over its fair value is separated into the portion representing a credit OTTI, which is recorded in net realized capital losses, and the remaining non-credit amount, which is recorded in OCI. The credit OTTI amount is the excess of its amortized cost basis over the Company’s best estimate of discounted expected future cash flows. The non-credit amount is the excess of the best estimate of the discounted expected future cash flows over the fair value. The Company’s best estimate of discounted expected future cash flows becomes the new cost basis and accretes prospectively into net investment income over the estimated remaining life of the security.

The Company’s best estimate of expected future cash flows is a quantitative and qualitative process that incorporates information received from third-party sources along with certain internal assumptions regarding the future performance. The Company's considerations include, but are not limited to, (a) changes in the financial condition of the issuer and the underlying collateral, (b) whether the issuer is current on contractually obligated interest and principal payments, (c) credit ratings, (d) payment structure of the security and (e) the extent to which the fair value has been less than the amortized cost of the security.

For non-structured securities, assumptions include, but are not limited to, economic and industry-specific trends and fundamentals, security-specific developments, industry earnings multiples and the issuer’s ability to restructure and execute asset sales.

For structured securities, assumptions include, but are not limited to, various performance indicators such as historical and projected default and recovery rates, credit ratings, current and projected delinquency rates, loan-to-value ("LTV") ratios, average cumulative collateral loss rates that vary by vintage year, prepayment speeds, and property value declines. These assumptions require the use of

## 3. Investments (continued)

significant management judgment and include the probability of issuer default and estimates regarding timing and amount of expected recoveries which may include estimating the underlying collateral value.

Prior to January 1, 2018, the Company recorded an OTTI for certain equity securities with debt-like characteristics if the Company intended to sell or it was more likely than not that the Company was required to sell the security before a recovery in value as well as for those equity securities for which the Company did not expect to recover the entire amortized cost basis. The Company also recorded an OTTI for equity securities where the decline in the fair value was deemed to be other-than-temporary. For further discussion of these policies, see Recognition and Presentation of Other-Than-Temporary Impairments within Note 6 - Investments of Notes to Consolidated Financial Statements included in the Company's 2017 Form 10-K Annual Report.

**Impairments in Earnings by Type**

| | Three Months Ended March 31, | |
|---|---|---|
| | **2018** | **2017** |
| Credit impairments | $ — | $ — |
| Intent-to-sell impairments | — | — |
| Impairments on equity securities | — | — |
| **Total impairments** | **$ —** | **$ —** |

**Cumulative Credit Impairments**

| | Three Months Ended March 31, | |
|---|---|---|
| *(Before tax)* | **2018** | **2017** |
| Balance as of beginning of period | $ (88) | $ (170) |
| **Additions for credit impairments recognized on [1]:** | | |
| Securities not previously impaired | — | — |
| Securities previously impaired | — | — |
| **Reductions for credit impairments previously recognized on:** | | |
| Securities that matured or were sold during the period | 4 | 5 |
| Securities due to an increase in expected cash flows | — | 4 |
| **Balance as of end of period** | **$ (84)** | **$ (161)** |

*[1] These additions are included in the net OTTI losses recognized in earnings in the Condensed Consolidated Statements of Operations.*

## 3. Investments (continued)

### Available-for-Sale Securities

**AFS Securities by Type**

| | March 31, 2018 | | | | | December 31, 2017 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cost or Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value | Non-Credit OTTI [1] | Cost or Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value | Non-Credit OTTI [1] |
| ABS | $ 831 | $ 8 | $ (10) | $ 829 | $ — | $ 821 | $ 9 | $ (11) | $ 819 | $ — |
| CDOs | 782 | — | (2) | 780 | — | 886 | 2 | — | 888 | — |
| CMBS | 1,996 | 30 | (39) | 1,987 | (1) | 2,061 | 45 | (22) | 2,084 | (1) |
| Corporate | 12,444 | 1,093 | (113) | 13,424 | — | 12,587 | 1,483 | (32) | 14,038 | — |
| Foreign govt./govt. agencies | 399 | 22 | (6) | 415 | — | 379 | 30 | (2) | 407 | — |
| Municipal | 1,126 | 114 | (2) | 1,238 | — | 1,125 | 142 | (1) | 1,266 | — |
| RMBS | 1,327 | 34 | (9) | 1,352 | — | 1,388 | 41 | (2) | 1,427 | — |
| U.S. Treasuries | 1,610 | 157 | (11) | 1,756 | — | 1,667 | 206 | (3) | 1,870 | — |
| **Total fixed maturities, AFS** | **20,515** | **1,458** | **(192)** | **21,781** | **(1)** | **20,914** | **1,958** | **(73)** | **22,799** | **(1)** |
| Equity securities, AFS [2] | | | | | | 140 | 14 | — | 154 | — |
| **Total AFS securities** | **$ 20,515** | **$ 1,458** | **$ (192)** | **$ 21,781** | **$ (1)** | **$ 21,054** | **$ 1,972** | **$ (73)** | **$ 22,953** | **$ (1)** |

*[1] Represents the amount of cumulative non-credit OTTI losses recognized in OCI on securities that also had credit impairments. These losses are included in gross unrealized losses as of March 31, 2018 and December 31, 2017.*

*[2] Effective January 1, 2018, with the adoption of new accounting standards for financial instruments, equity securities, AFS were reclassified to equity securities at fair value and are excluded from the table above as of March 31, 2018.*

**Fixed maturities, AFS, by Contractual Maturity Year**

| | March 31, 2018 | | December 31, 2017 | |
|---|---|---|---|---|
| **Contractual Maturity** | **Amortized Cost** | **Fair Value** | **Amortized Cost** | **Fair Value** |
| One year or less | $ 914 | $ 918 | $ 844 | $ 850 |
| Over one year through five years | 3,418 | 3,454 | 3,498 | 3,580 |
| Over five years through ten years | 3,005 | 3,063 | 3,178 | 3,321 |
| Over ten years | 8,242 | 9,398 | 8,238 | 9,830 |
| Subtotal | 15,579 | 16,833 | 15,758 | 17,581 |
| Mortgage-backed and asset-backed securities | 4,936 | 4,948 | 5,156 | 5,218 |
| **Total fixed maturities, AFS** | **$ 20,515** | **$ 21,781** | **$ 20,914** | **$ 22,799** |

Estimated maturities may differ from contractual maturities due to security call or prepayment provisions. Due to the potential for variability in payment speeds (i.e. prepayments or extensions), mortgage-backed and asset-backed securities are not categorized by contractual maturity.

### Concentration of Credit Risk

The Company aims to maintain a diversified investment portfolio including issuer, sector and geographic stratification, where applicable, and has established certain exposure limits, diversification standards and review procedures to mitigate credit risk.

The Company had no investment exposure to any credit concentration risk of a single issuer greater than 10% of the Company's stockholder's equity, other than the U.S. government and certain U.S. government agencies as of March 31, 2018 and December 31, 2017. For further discussion of concentration of credit risk, see the Concentration of Credit Risk section in Note 3 - Investments of Notes to Consolidated Financial Statements in the Company's 2017 Form 10-K Annual Report.

## 3. Investments (continued)

### Unrealized Losses on AFS Securities

**Unrealized Loss Aging for AFS Securities by Type and Length of Time as of March 31, 2018**

| | Less Than 12 Months | | | 12 Months or More | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Amortized Cost | Fair Value | Unrealized Losses | Amortized Cost | Fair Value | Unrealized Losses | Amortized Cost | Fair Value | Unrealized Losses |
| ABS | $ 298 | $ 296 | $ (2) | $ 203 | $ 195 | $ (8) | $ 501 | $ 491 | $ (10) |
| CDOs | 582 | 580 | (2) | — | — | — | 582 | 580 | (2) |
| CMBS | 901 | 881 | (20) | 338 | 319 | (19) | 1,239 | 1,200 | (39) |
| Corporate | 3,701 | 3,631 | (70) | 751 | 708 | (43) | 4,452 | 4,339 | (113) |
| Foreign govt./govt. agencies | 175 | 171 | (4) | 35 | 33 | (2) | 210 | 204 | (6) |
| Municipal | 78 | 77 | (1) | 10 | 9 | (1) | 88 | 86 | (2) |
| RMBS | 526 | 518 | (8) | 21 | 20 | (1) | 547 | 538 | (9) |
| U.S. Treasuries | 386 | 376 | (10) | 32 | 31 | (1) | 418 | 407 | (11) |
| **Total fixed maturities, AFS in an unrealized loss position** | **$ 6,647** | **$ 6,530** | **$ (117)** | **$ 1,390** | **$ 1,315** | **$ (75)** | **$ 8,037** | **$ 7,845** | **$ (192)** |

**Unrealized Loss Aging for AFS Securities by Type and Length of Time as of December 31, 2017**

| | Less Than 12 Months | | | 12 Months or More | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Amortized Cost | Fair Value | Unrealized Losses | Amortized Cost | Fair Value | Unrealized Losses | Amortized Cost | Fair Value | Unrealized Losses |
| ABS | $ 158 | $ 157 | $ (1) | $ 219 | $ 209 | $ (10) | $ 377 | $ 366 | $ (11) |
| CDOs | 242 | 242 | — | 37 | 37 | — | 279 | 279 | — |
| CMBS | 524 | 517 | (7) | 346 | 331 | (15) | 870 | 848 | (22) |
| Corporate | 1,082 | 1,074 | (8) | 779 | 755 | (24) | 1,861 | 1,829 | (32) |
| Foreign govt./govt. agencies | 60 | 59 | (1) | 35 | 34 | (1) | 95 | 93 | (2) |
| Municipal | 9 | 9 | — | 10 | 9 | (1) | 19 | 18 | (1) |
| RMBS | 288 | 287 | (1) | 28 | 27 | (1) | 316 | 314 | (2) |
| U.S. Treasuries | 382 | 380 | (2) | 38 | 37 | (1) | 420 | 417 | (3) |
| **Total fixed maturities, AFS in an unrealized loss position** | **2,745** | **2,725** | **(20)** | **1,492** | **1,439** | **(53)** | **4,237** | **4,164** | **(73)** |
| Equity securities, AFS [1] | 6 | 6 | — | 3 | 3 | — | 9 | 9 | — |
| **Total securities in an unrealized loss position** | **$ 2,751** | **$ 2,731** | **$ (20)** | **$ 1,495** | **$ 1,442** | **$ (53)** | **$ 4,246** | **$ 4,173** | **$ (73)** |

*[1] Effective January 1, 2018, with the adoption of new accounting standards for financial instruments, equity securities, AFS were reclassified to equity securities at fair value and are excluded from the table above as of March 31, 2018.*

As of March 31, 2018, AFS securities in an unrealized loss position consisted of 1,698 securities, primarily in the corporate sector, which were depressed primarily due to an increase in interest rates and/or widening of credit spreads since the securities were purchased. As of March 31, 2018, 99% of these securities were depressed less than 20% of amortized cost. The increase in unrealized losses during 2018 was primarily attributable to widening of credit spreads and an increase in long-term interest rates.

Most of the securities depressed for twelve months or more primarily relate to corporate securities, structured securities with exposure to commercial real estate, and student loan ABS. Corporate securities and commercial real estate securities were primarily depressed because current market spreads are wider than spreads at the securities' respective purchase dates. Certain other corporate securities, student loan ABS, and commercial real estate securities were depressed because the securities have floating-rate coupons and have long-dated maturities, and current credit spreads are wider than when these securities were purchased. The Company neither has an intention to sell nor does it expect to be required to sell the securities outlined in the preceding discussion.

## 3. Investments (continued)

**Mortgage Loans**

*Mortgage Loan Valuation Allowances*

Commercial mortgage loans are considered to be impaired when management estimates that, based upon current information and events, it is probable that the Company will be unable to collect amounts due according to the contractual terms of the loan agreement. The Company reviews mortgage loans on a quarterly basis to identify potential credit losses. Among other factors, management reviews current and projected macroeconomic trends, such as unemployment rates, and property-specific factors such as rental rates, occupancy levels, LTV ratios and debt service coverage ratios ("DSCR"). In addition, the Company considers historical, current and projected delinquency rates and property values. Estimates of collectibility require the use of significant management judgment and include the probability and timing of borrower default and loss severity estimates. In addition, cash flow projections may change based upon new information about the borrower's ability to pay and/or the value of underlying collateral such as changes in projected property value estimates.

For mortgage loans that are deemed impaired, a valuation allowance is established for the difference between the carrying amount and estimated value. The mortgage loan's estimated value is most frequently the Company's share of the fair value of the collateral but may also be the Company's share of either (a) the present value of the expected future cash flows discounted at the loan's effective interest rate or (b) the loan's observable market price. A valuation allowance may be recorded for an individual loan or for a group of loans that have an LTV ratio of 90% or greater, a low DSCR or have other lower credit quality characteristics. Changes in valuation allowances are recorded in net realized capital gains and losses. Interest income on impaired loans is accrued to the extent it is deemed collectible and the borrowers continue to make payments under the original or restructured loan terms. The Company stops accruing interest income on loans when it is probable that the Company will not receive interest and principal payments according to the contractual terms of the loan agreement. The company resumes accruing interest income when it determines that sufficient collateral exists to satisfy the full amount of the loan principal and interest payments and when it is probable cash will be received in the foreseeable future. Interest income on defaulted loans is recognized when received.

As of March 31, 2018, commercial mortgage loans had an amortized cost and carrying value of $2.8 billion, with no valuation allowance. As of December 31, 2017, commercial mortgage loans had an amortized cost and carrying value of $2.9 billion, with no valuation allowance. Amortized cost represents carrying value prior to valuation allowances, if any.

As of both March 31, 2018 and December 31, 2017, the carrying value of mortgage loans that had a valuation allowance was $0. There were no mortgage loans held-for-sale as of March 31, 2018 or December 31, 2017. As of March 31, 2018, the Company had an immaterial amount of mortgage loans that have had extensions or restructurings other than what is allowable under the original terms of the contract.

**Valuation Allowance Activity**

| | Three Months Ended March 31, | |
|---|---|---|
| | **2018** | **2017** |
| **Balance as of January 1** | **$ —** | **$ (19)** |
| Reversals/(Additions) | — | — |
| Deductions | — | — |
| **Balance as of March 31** | **$ —** | **$ (19)** |

The weighted-average LTV ratio of the Company's commercial mortgage loan portfolio was 49% as of March 31, 2018, while the weighted-average LTV ratio at origination of these loans was 62%. LTV ratios compare the loan amount to the value of the underlying property collateralizing the loan. The loan collateral values are updated no less than annually through reviews of the underlying properties. Factors considered in estimating property values include, among other things, actual and expected property cash flows, geographic market data and the ratio of the property's net operating income to its value. DSCR compares a property's net operating income to the borrower's principal and interest payments. The weighted average DSCR of the Company's commercial mortgage loan portfolio was 2.76x as of March 31, 2018. As of both March 31, 2018 and December 31, 2017, the Company held no delinquent commercial mortgage loans past due by 90 days or more.

## 3. Investments (continued)

**Commercial Mortgage Loans Credit Quality**

| | March 31, 2018 | | December 31, 2017 | |
|---|---|---|---|---|
| **Loan-to-value** | **Carrying Value** | **Avg. Debt-Service Coverage Ratio** | **Carrying Value** | **Avg. Debt-Service Coverage Ratio** |
| Greater than 80% | $ 5 | 1.26x | $ 5 | 1.26x |
| 65% - 80% | 124 | 1.88x | 125 | 1.88x |
| Less than 65% | 2,710 | 2.80x | 2,742 | 2.69x |
| **Total commercial mortgage loans** | **$ 2,839** | **2.76x** | **$ 2,872** | **2.65x** |

**Mortgage Loans by Region**

| | March 31, 2018 | | December 31, 2017 | |
|---|---|---|---|---|
| | **Carrying Value** | **Percent of Total** | **Carrying Value** | **Percent of Total** |
| East North Central | $ 62 | 2.2% | $ 62 | 2.1% |
| East South Central | 14 | 0.5% | 14 | 0.5% |
| Middle Atlantic | 291 | 10.2% | 291 | 10.1% |
| New England | 91 | 3.2% | 92 | 3.2% |
| Pacific | 826 | 29.1% | 838 | 29.2% |
| South Atlantic | 591 | 20.8% | 608 | 21.2% |
| West South Central | 195 | 6.9% | 195 | 6.8% |
| Other [1] | 769 | 27.1% | 772 | 26.9% |
| **Total mortgage loans** | **$ 2,839** | **100.0%** | **$ 2,872** | **100.0%** |

*[1] Primarily represents loans collateralized by multiple properties in various regions.*

**Mortgage Loans by Property Type**

| | March 31, 2018 | | December 31, 2017 | |
|---|---|---|---|---|
| | **Carrying Value** | **Percent of Total** | **Carrying Value** | **Percent of Total** |
| Commercial | | | | |
| Industrial | $ 750 | 26.4% | $ 743 | 25.9% |
| Lodging | 24 | 0.9% | 24 | 0.8% |
| Multifamily | 644 | 22.7% | 662 | 23.0% |
| Office | 667 | 23.5% | 685 | 23.9% |
| Retail | 554 | 19.5% | 557 | 19.4% |
| Other | 200 | 7.0% | 201 | 7.0% |
| **Total mortgage loans** | **$ 2,839** | **100.0%** | **$ 2,872** | **100.0%** |

### Variable Interest Entities

The Company is engaged with various special purpose entities and other entities that are deemed to be VIEs primarily as an investor through normal investment activities.

A VIE is an entity that either has investors that lack certain essential characteristics of a controlling financial interest, such as simple majority kick-out rights, or lacks sufficient funds to finance its own activities without financial support provided by other entities. The Company performs ongoing qualitative assessments of its VIEs to determine whether the Company has a controlling financial interest in the VIE and therefore is the primary beneficiary. The Company is deemed to have a controlling financial interest when it has both the ability to direct the activities that most significantly impact the economic performance of the VIE and the obligation to absorb losses or right to receive benefits from the VIE that could potentially be significant to the VIE. Based on the Company's assessment, if it determines it is the primary beneficiary, the Company consolidates the VIE in the Company's Condensed Consolidated Financial Statements. As of March 31, 2018 and December 31, 2017 the Company did not hold any VIEs for which it was the primary beneficiary.

## 3. Investments (continued)

*Non-Consolidated VIEs*

The Company, through normal investment activities, makes passive investments in limited partnerships and other alternative investments. The Company has determined it is not the primary beneficiary as it has no ability to direct activities that could significantly affect the economic performance of the investments.  The Company's maximum exposure to loss as of March 31, 2018 and December 31, 2017 is limited to the total carrying value of $875 and $900, respectively, which are included in limited partnerships and other alternative investments in the Company's Condensed Consolidated Balance Sheets.  As of March 31, 2018 and December 31, 2017, the Company has outstanding commitments totaling $638 and $673, respectively, whereby the Company is committed to fund these investments and may be called by the partnership during the commitment period to fund the purchase of new investments and partnership expenses. These investments are generally of a passive nature in that the Company does not take an active role in management.  For further discussion of these investments, see Equity Method Investments within Note 3 - Investments of Notes to Consolidated Financial Statements included in the Company's 2017 Form 10-K Annual Report.

In addition, the Company also makes passive investments in structured securities issued by VIEs for which the Company is not the manager. These investments are included in ABS, CDOs, CMBS and RMBS in the Available for Sale Securities table and fixed maturities, FVO, in the Company's Condensed Consolidated Balance Sheets. The Company has not provided financial or other support with respect to these investments other than its original investment. For these investments, the Company determined it is not the primary beneficiary due to the relative size of the Company's investment in comparison to the principal amount of the structured securities issued by the VIEs, the level of credit subordination which reduces the Company's obligation to absorb losses or right to receive benefits and the Company's inability to direct the activities that most significantly impact the economic performance of the VIEs. The Company's maximum exposure to loss on these investments is limited to the amount of the Company's investment.

**Securities Lending, Repurchase Agreements and Other Collateral Transactions**

The Company enters into securities financing transactions as a way to earn additional income or manage liquidity, primarily through securities lending and repurchase agreements.

**Securities Lending**

Under a securities lending program, the Company lends certain fixed maturities within the corporate, foreign government/government agencies, and municipal sectors as well as equity securities to qualifying third-party borrowers in return for collateral in the form of cash or securities. For domestic and non-domestic loaned securities, respectively, borrowers provide collateral of 102% and 105% of the fair value of the securities lent at the time of the loan. Borrowers will return the securities to the Company for cash or securities collateral at maturity dates generally of 90 days or less.  Security collateral on deposit from counterparties in connection with securities lending transactions may not be sold or re-pledged, except in the event of default by the counterparty, and is not reflected on the Company's Condensed Consolidated Balance Sheets. Additional collateral is obtained if the fair value of the collateral falls below 100% of the fair value of the loaned securities. The agreements provide the counterparty the right to sell or re-pledge the securities loaned. If cash, rather than securities, is received as collateral, the cash is typically invested in short-term investments or fixed maturities and is reported as an asset on the Company's Condensed Consolidated Balance Sheets. Income associated with securities lending transactions is reported as a component of net investment income in the Company's Condensed Consolidated Statements of Operations.

**Repurchase Agreements**

From time to time, the Company enters into repurchase agreements to manage liquidity or to earn incremental income.  A repurchase agreement is a transaction in which one party (transferor) agrees to sell securities to another party (transferee) in return for cash (or securities), with a simultaneous agreement to repurchase the same securities at a specified price at a later date. These transactions generally have a contractual maturity of ninety days or less. Repurchase agreements include master netting provisions that provide both counterparties the right to offset claims and apply securities held by them with respect to their obligations in the event of a default. Although the Company has the contractual right to offset claims, the Company's current positions do not meet the specific conditions for net presentation.

Under repurchase agreements, the Company transfers collateral of U.S. government and government agency securities and receives cash. For repurchase agreements, the Company obtains cash in an amount equal to at least 95% of the fair value of the securities transferred. The agreements require additional collateral to be transferred when necessary and provide the counterparty the right to sell or re-pledge the securities transferred.  The cash received from the repurchase program is typically invested in short-term investments or fixed maturities and is reported as an asset on the Company's Condensed Consolidated Balance Sheets. The Company accounts for the repurchase agreements as collateralized borrowings. The securities transferred under repurchase agreements are included in fixed maturities, AFS with the obligation to repurchase those securities recorded in other liabilities on the Company's Condensed Consolidated Balance Sheets.

## 3. Investments (continued)

From time to time, the Company enters into reverse repurchase agreements where the Company purchases securities and simultaneously agrees to resell the same or substantially the same securities. The agreements require additional collateral to be transferred to the Company when necessary and the Company has the right to sell or re-pledge the securities received. The Company accounts for reverse repurchase agreements as collateralized financing.

**Securities Lending and Repurchase Agreements**

| | March 31, 2018 | December 31, 2017 |
|---|---|---|
| | Fair Value | Fair Value |
| **Securities Lending Transactions:** | | |
| Gross amount of securities on loan | $ 585 | $ 674 |
| Gross amount of associated liability for collateral received [1] | $ 597 | $ 689 |
| **Repurchase agreements:** | | |
| Gross amount of recognized liabilities for repurchase agreements | $ 192 | $ 202 |
| Gross amount of collateral pledged related to repurchase agreements [2] | $ 200 | $ 206 |

*[1] Cash collateral received is reinvested in fixed maturities, AFS and short term investments which are included in the Condensed Consolidated Balance Sheets. Amount includes additional securities collateral received of $14 and $1 which are excluded from the Company's Condensed Consolidated Balance Sheets as of March 31, 2018 and December 31, 2017, respectively.*

*[2] Collateral pledged is included within fixed maturities, AFS and short term investments in the Company's Condensed Consolidated Balance Sheets.*

**Other Collateral Transactions**

The Company is required by law to deposit securities with government agencies in certain states in which it conducts business. As of both March 31, 2018 and December 31, 2017, the fair value of securities on deposit was $22.

For disclosure of collateral in support of derivative transactions, refer to the Derivative Collateral Arrangements section of Note 4 - Derivative Instruments.

## 4. Derivative Instruments

The Company utilizes a variety of OTC, OTC-cleared and exchange traded derivative instruments as a part of its overall risk management strategy as well as to enter into replication transactions. Derivative instruments are used to manage risk associated with interest rate, equity market, credit spread, issuer default, price and currency exchange rate risk or volatility. Replication transactions are used as an economical means to synthetically replicate the characteristics and performance of assets that are permissible investments under the Company's investment policies. The Company also may enter into and has previously issued financial instruments and products that either are accounted for as free-standing derivatives, such as certain reinsurance contracts, or as embedded derivative instruments, such as certain GMWB riders included with certain variable annuity products.

**Strategies that Qualify for Hedge Accounting**

Some of the Company's derivatives satisfy hedge accounting requirements as outlined in Note 1 - Basis of Presentation and Significant Accounting Policies of Notes to Consolidated Financial Statements included in the Company's 2017 Form 10-K Annual Report. Typically, these hedging instruments include interest rate swaps and, to a lesser extent, foreign currency swaps where the terms or expected cash flows of the hedged item closely match the terms of the swap. The interest rate swaps are typically used to manage interest rate duration of certain fixed maturity securities or liability contracts. The hedge strategies by hedge accounting designation include:

*Cash Flow Hedges*

Interest rate swaps are predominantly used to manage portfolio duration and better match cash receipts from assets with cash disbursements required to fund liabilities. These derivatives primarily convert interest receipts on floating-rate fixed maturity securities to fixed rates. The Company has also entered into forward starting swap agreements to hedge the interest rate exposure related to the future purchase of fixed-rate securities, primarily to hedge interest rate risk inherent in the assumptions used to price certain product liabilities.

Foreign currency swaps are used to convert foreign currency-denominated cash flows related to certain investment receipts and liability payments to U.S. dollars in order to reduce cash flow fluctuations due to changes in currency rates.

**Non-qualifying Strategies**

Derivative relationships that do not qualify for hedge accounting ("non-qualifying strategies") primarily include the hedge program for the Company's variable annuity products as well as the hedging and replication strategies that utilize credit default swaps. In addition, hedges of interest rate, foreign currency and equity risk of certain fixed maturities, equities and liabilities do not qualify for hedge accounting.

The non-qualifying strategies include:

*Interest Rate Swaps, Swaptions, and Futures*

The Company uses interest rate swaps, swaptions, and futures to manage interest rate duration between assets and liabilities in certain investment portfolios. In addition, the Company enters into interest rate swaps to terminate existing swaps, thereby offsetting the changes in value of the original swap. As of March 31, 2018 and December 31, 2017, the notional amount of interest rate swaps in offsetting relationships was $2.7 billion.

*Foreign Currency Swaps and Forwards*

The Company enters into foreign currency swaps to convert the foreign currency exposures of certain foreign currency-denominated fixed maturity investments to U.S. dollars. The Company also enters into foreign currency forwards to hedge non-U.S. dollar denominated cash and, previously, to hedge equity securities.

*Fixed Payout Annuity Hedge*

The Company has obligations for certain yen denominated fixed payout annuities under an assumed reinsurance contract. The Company invests in U.S. dollar denominated assets to support the assumed reinsurance liability. The Company has in place pay U.S. dollar, receive yen swap contracts to hedge the currency and yen interest rate exposure between the U.S. dollar denominated assets and the yen denominated fixed liability reinsurance payments.

*Credit Contracts*

Credit default swaps are used to purchase credit protection on an individual entity or referenced index to economically hedge against default risk and credit-related changes in the value of fixed maturity securities. Credit default swaps are also used to assume credit risk related to an individual entity or referenced index as a part of replication transactions. These contracts require the Company to pay or receive a periodic fee in exchange for compensation from the counterparty should the referenced security issuers experience a credit

## 4. Derivative Instruments (continued)

event, as defined in the contract. In addition, the Company enters into credit default swaps to terminate existing credit default swaps, thereby offsetting the changes in value of the original swap going forward.

*Equity Index Swaps and Options*

The Company enters into equity index options to hedge the impact of a decline in the equity markets on the investment portfolio. The Company previously entered into total return swaps to hedge equity risk of specific common stock investments which were accounted for using fair value option in order to align the accounting treatment within net realized capital gains (losses). In addition, the Company formerly offered certain equity indexed products that remain in force, a portion of which contained embedded derivatives that require changes in value to be bifurcated from the host contract. The Company uses equity index swaps to economically hedge the equity volatility risk associated with the equity indexed products.

*GMWB Derivatives, net*

The Company formerly offered certain variable annuity products with GMWB riders. The GMWB product is a bifurcated embedded derivative (“GMWB product derivatives”) that has a notional value equal to the GRB. The Company uses reinsurance contracts to transfer a portion of its risk of loss due to GMWB. The reinsurance contracts covering GMWB (“GMWB reinsurance contracts”) are accounted for as free-standing derivatives with a notional amount equal to the GRB reinsured.

The Company utilizes derivatives (“GMWB hedging instruments”) as part of a dynamic hedging program designed to hedge a portion of the capital market risk exposures of the non-reinsured GMWB riders. The GMWB hedging instruments hedge changes in interest rates, equity market levels, and equity volatility. These derivatives include customized swaps, interest rate swaps and futures, and equity swaps, options and futures, on certain indices including the S&P 500 index, EAFE index and NASDAQ index. The Company retains the risk for differences between assumed and actual policyholder behavior and between the performance of the actively managed funds underlying the separate accounts and their respective indices.

**GMWB Hedging Instruments**

| | Notional Amount | | Fair Value | |
|---|---|---|---|---|
| | **March 31, 2018** | **December 31, 2017** | **March 31, 2018** | **December 31, 2017** |
| Customized swaps | $ 4,739 | $ 5,023 | $ 57 | $ 59 |
| Equity swaps, options, and futures | 761 | 1,407 | (20) | (31) |
| Interest rate swaps and futures | 3,076 | 3,022 | 30 | 39 |
| **Total** | **$ 8,576** | **$ 9,452** | **$ 67** | **$ 67** |

*Macro Hedge Program*

The Company utilizes equity swaps, options, forwards and futures to provide partial protection against the statutory tail scenario risk arising from GMWB and the guaranteed minimum death benefits ("GMDB") liabilities on the Company's statutory surplus. These derivatives cover some of the residual risks not otherwise covered by the dynamic hedging program.

*Modified Coinsurance Reinsurance Contracts*

As of March 31, 2018, and December 31, 2017, the Company had approximately $836 and $861, respectively, of invested assets supporting other policyholder funds and benefits payable reinsured under a modified coinsurance arrangement in connection with the sale of the Individual Life business, which was structured as a reinsurance transaction. The assets are primarily held in a trust established by the Company. The Company pays or receives cash quarterly to settle the operating results of the reinsured business, including the investment results. As a result of this modified coinsurance arrangement, the Company has an embedded derivative that transfers to the reinsurer certain unrealized changes in fair value of investments subject to interest rate and credit risk. The notional amount of the embedded derivative reinsurance contracts are the invested assets which are carried at fair value and support the reinsured reserves.

## 4. Derivative Instruments (continued)

### Derivative Balance Sheet Classification

For reporting purposes, the Company has elected to offset within assets or liabilities based upon the net of the fair value amounts, income accruals, and related cash collateral receivables and payables of OTC derivative instruments executed in a legal entity and with the same counterparty under a master netting agreement, which provides the Company with the legal right of offset. The following fair value amounts do not include income accruals or related cash collateral receivables and payables, which are netted with derivative fair value amounts to determine balance sheet presentation. Derivatives in the Company's separate accounts, where the associated gains and losses accrue directly to policyholders, are not included in the table below. The Company's derivative instruments are held for risk management purposes, unless otherwise noted in the following table. The notional amount of derivative contracts represents the basis upon which pay or receive amounts are calculated and is presented in the table to quantify the volume of the Company's derivative activity. Notional amounts are not necessarily reflective of credit risk. The following tables exclude investments that contain an embedded credit derivative for which the Company has elected the fair value option. For further discussion, see the Fair Value Option section in Note 2 - Fair Value Measurements of Notes to the Condensed Consolidated Financial Statements.

**Derivative Balance Sheet Presentation**

| | Net Derivatives | | | | Asset Derivatives | | Liability Derivatives | |
|---|---|---|---|---|---|---|---|---|
| | Notional Amount | | Fair Value | | Fair Value | | Fair Value | |
| | Mar 31, 2018 | Dec 31, 2017 | Mar 31, 2018 | Dec 31, 2017 | Mar 31, 2018 | Dec 31, 2017 | Mar 31, 2018 | Dec 31, 2017 |
| **Cash flow hedges** | | | | | | | | |
| Interest rate swaps | $ 1,421 | $ 1,486 | $ (3) | $ — | $ 18 | $ 6 | $ (21) | $ (6) |
| Foreign currency swaps | 182 | 182 | (12) | (12) | 4 | 5 | (16) | (17) |
| **Total cash flow hedges** | **1,603** | **1,668** | **(15)** | **(12)** | **22** | **11** | **(37)** | **(23)** |
| **Non-qualifying strategies** | | | | | | | | |
| *Interest rate contracts* | | | | | | | | |
| Interest rate swaps and futures | 3,216 | 3,219 | (326) | (356) | 306 | 339 | (632) | (695) |
| *Foreign exchange contracts* | | | | | | | | |
| Foreign currency swaps and forwards | 41 | 342 | — | (6) | — | — | — | (6) |
| Fixed payout annuity hedge | 540 | 540 | (149) | (170) | — | — | (149) | (170) |
| *Credit contracts* | | | | | | | | |
| Credit derivatives that purchase credit protection | 51 | 80 | (2) | (3) | — | — | (2) | (3) |
| Credit derivatives that assume credit risk [1] | 380 | 380 | 6 | 3 | 7 | 9 | (1) | (6) |
| Credit derivatives in offsetting positions | 62 | 200 | — | 1 | 6 | 9 | (6) | (8) |
| *Variable annuity hedge program* | | | | | | | | |
| GMWB product derivatives [2] | 11,021 | 11,390 | (53) | (75) | — | — | (53) | (75) |
| GMWB reinsurance contracts | 2,308 | 2,372 | 31 | 35 | 31 | 35 | — | — |
| GMWB hedging instruments | 8,576 | 9,452 | 67 | 67 | 127 | 120 | (60) | (53) |
| Macro hedge program | 6,497 | 7,252 | 35 | 23 | 48 | 45 | (13) | (22) |
| *Other* | | | | | | | | |
| Modified coinsurance reinsurance contracts | 836 | 861 | 81 | 55 | 81 | 55 | — | — |
| **Total non-qualifying strategies** | **33,528** | **36,088** | **(310)** | **(426)** | **606** | **612** | **(916)** | **(1,038)** |
| **Total cash flow hedges and non-qualifying strategies** | **$ 35,131** | **$ 37,756** | **$ (325)** | **$ (438)** | **$ 628** | **$ 623** | **$ (953)** | **$ (1,061)** |
| **Balance Sheet Location** | | | | | | | | |
| Fixed maturities, available-for-sale | $ 39 | $ 39 | $ — | $ — | $ — | $ — | $ — | $ — |
| Other investments | 6,765 | 10,340 | 78 | 135 | 100 | 302 | (22) | (167) |
| Other liabilities | 14,162 | 12,754 | (462) | (588) | 416 | 231 | (878) | (819) |
| Reinsurance recoverables | 3,144 | 3,233 | 112 | 90 | 112 | 90 | — | — |
| Other policyholder funds and benefits payable | 11,021 | 11,390 | (53) | (75) | — | — | (53) | (75) |
| **Total derivatives** | **$ 35,131** | **$ 37,756** | **$ (325)** | **$ (438)** | **$ 628** | **$ 623** | **$ (953)** | **$ (1,061)** |

*[1] The derivative instruments related to this strategy are held for other investment purposes.*
*[2] These derivatives are embedded within liabilities and are not held for risk management purposes.*

## 4. Derivative Instruments (continued)

*Offsetting of Derivative Assets/Liabilities*

The following tables present the gross fair value amounts, the amounts offset, and net position of derivative instruments eligible for offset in the Company's Condensed Consolidated Balance Sheets. Amounts offset include fair value amounts, income accruals and related cash collateral receivables and payables associated with derivative instruments that are traded under a common master netting agreement, as described in the preceding discussion. Also included in the tables are financial collateral receivables and payables, which are contractually permitted to be offset upon an event of default, although are disallowed for offsetting under U.S. GAAP.

**Offsetting Derivative Assets and Liabilities**

| | (i) | (ii) | (iii) = (i) - (ii) | | (iv) | (v) = (iii) - (iv) |
|---|---|---|---|---|---|---|
| | | | Net Amounts Presented in the Statement of Financial Position | | Collateral Disallowed for Offset in the Statement of Financial Position | |
| | Gross Amounts of Recognized Assets (Liabilities) | Gross Amounts Offset in the Statement of Financial Position | Derivative Assets [1] (Liabilities) [2] | Accrued Interest and Cash Collateral Received [3] Pledged [2] | Financial Collateral Received [4] | Net Amount |
| **As of March 31, 2018** | | | | | | |
| Other investments | $ 516 | $ 478 | $ 78 | $ (40) | $ 1 | $ 37 |
| Other liabilities | $ (900) | $ (301) | $ (462) | $ (137) | $ (596) | $ (3) |
| **As of December 31, 2017** | | | | | | |
| Other investments | $ 533 | $ 491 | $ 135 | $ (93) | $ — | $ 42 |
| Other liabilities | $ (986) | $ (307) | $ (588) | $ (91) | $ (674) | $ (5) |

*[1] Included in other invested assets in the Company's Condensed Consolidated Balance Sheets.*
*[2] Included in other liabilities in the Company's Condensed Consolidated Balance Sheets and is limited to the net derivative receivable associated with each counterparty.*
*[3] Included in other investments in the Company's Condensed Consolidated Balance Sheets and is limited to the net derivative payable associated with each counterparty.*
*[4] Excludes collateral associated with exchange-traded derivative instruments.*

**Cash Flow Hedges**

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative is reported as a component of OCI and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative representing hedge ineffectiveness are recognized in current period earnings. All components of each derivative’s gain or loss were included in the assessment of hedge effectiveness.

**Derivatives in Cash Flow Hedging Relationships**

| | Gain (Loss) Recognized in OCI on Derivative (Effective Portion) | |
|---|---|---|
| | Three Months Ended March 31, | |
| | 2018 | 2017 |
| Interest rate swaps | $ (16) | $ (4) |
| Foreign currency swaps | — | 1 |
| **Total** | **$ (16)** | **$ (3)** |

## 4. Derivative Instruments (continued)

**Derivatives in Cash Flow Hedging Relationships**

| | | Gain or (Loss) Reclassified from AOCI into Income (Effective Portion) | |
|---|---|---|---|
| | | Three Months Ended March 31, | |
| | | 2018 | 2017 |
| Interest rate swaps | Net investment income | 5 | 7 |
| Foreign currency swaps | Net realized capital gains | 2 | 1 |
| **Total** | | **$ 7** | **$ 8** |

During the three months ended March 31, 2018, and March 31, 2017, the Company had no ineffectiveness recognized in income within net realized capital gains (losses).

As of March 31, 2018, the before tax deferred net gains on derivative instruments recorded in AOCI that are expected to be reclassified to earnings during the next twelve months are $11. This expectation is based on the anticipated interest payments on hedged investments in fixed maturity securities that will occur over the next twelve months, at which time the Company will recognize the deferred net gains (losses) as an adjustment to net investment income over the term of the investment cash flows.

During the three months ended March 31, 2018, and March 31, 2017, the Company had no net reclassifications from AOCI to earnings resulting from the discontinuance of cash-flow hedges due to forecasted transactions that were no longer probable of occurring.

## 4. Derivative Instruments (continued)

### Non-qualifying Strategies

For non-qualifying strategies, including embedded derivatives that are required to be bifurcated from their host contracts and accounted for as derivatives, the gain or loss on the derivative is recognized currently in earnings within net realized capital gains (losses).

**Non-Qualifying Strategies Recognized within Net Realized Capital Gains (Losses)**

| | Three Months Ended March 31, | |
|---|---|---|
| | **2018** | **2017** |
| ***Variable annuity hedge program*** | | |
| GMWB product derivatives | $ 39 | $ 101 |
| GMWB reinsurance contracts | (13) | (18) |
| GMWB hedging instruments | (22) | (65) |
| Macro hedge program | 18 | (86) |
| *Total variable annuity hedge program* | 22 | (68) |
| ***Foreign exchange contracts*** | | |
| Foreign currency swaps and forwards | (3) | (4) |
| Fixed payout annuity hedge | 20 | 21 |
| *Total foreign exchange contracts* | 17 | 17 |
| ***Other non-qualifying derivatives*** | | |
| *Interest rate contracts* | | |
| Interest rate swaps, swaptions, and futures | (30) | 2 |
| *Credit contracts* | | |
| Credit derivatives that purchase credit protection | — | (6) |
| Credit derivatives that assume credit risk | (1) | 8 |
| *Equity contracts* | | |
| Equity index swaps and options | — | 1 |
| *Other* | | |
| Modified coinsurance reinsurance contracts | 26 | (2) |
| *Total other non-qualifying derivatives* | (5) | 3 |
| **Total [1]** | **$ 34** | **$ (48)** |

*[1] Excludes investments that contain an embedded credit derivative for which the Company has elected the fair value option. For further discussion, see the Fair Value Option section in Note 2 - Fair Value Measurements.*

### Credit Risk Assumed through Credit Derivatives

The Company enters into credit default swaps that assume credit risk of a single entity or referenced index in order to synthetically replicate investment transactions that are permissible under the Company's investment policies. The Company will receive periodic payments based on an agreed upon rate and notional amount and will only make a payment if there is a credit event. A credit event payment will typically be equal to the notional value of the swap contract less the value of the referenced security issuer’s debt obligation after the occurrence of the credit event. A credit event is generally defined as a default on contractually obligated interest or principal payments or bankruptcy of the referenced entity. The credit default swaps in which the Company assumes credit risk primarily reference investment grade single corporate issuers and baskets, which include standard diversified portfolios of corporate and CMBS issuers. The diversified portfolios of corporate issuers are established within sector concentration limits and may be divided into tranches that possess different credit ratings.

## 4. Derivative Instruments (continued)

**Credit Derivatives by Type**

**As of March 31, 2018**

| Credit Derivative type by derivative risk exposure | | Notional Amount [2] | | Fair Value | Weighted Average Years to Maturity | Underlying Referenced Credit Obligation(s) [1] Type | Average Credit Rating | | Offsetting Notional Amount [3] | | Offsetting Fair Value [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Single name credit default swaps | | | | | | | | | | | |
| Investment grade risk exposure | $ | 120 | $ | 3 | 5 years | Corporate Credit/ Foreign Gov. | A- | $ | — | $ | — |
| Basket credit default swaps [4] | | | | | | | | | | | |
| Investment grade risk exposure | | 250 | | 4 | 5 years | Corporate Credit | BBB+ | | — | | — |
| Investment grade risk exposure | | 13 | | (1) | 5 years | CMBS Credit | A- | | 3 | | — |
| Below investment grade risk exposure | | 28 | | (5) | Less than 1 Year | CMBS Credit | CCC | | 28 | | 5 |
| **Total [5]** | **$** | **411** | **$** | **1** | | | | **$** | **31** | **$** | **5** |

**As of December 31, 2017**

| Credit Derivative type by derivative risk exposure | | Notional Amount [2] | | Fair Value | Weighted Average Years to Maturity | Underlying Referenced Credit Obligation(s) [1] Type | Average Credit Rating | | Offsetting Notional Amount [3] | | Offsetting Fair Value [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Single name credit default swaps | | | | | | | | | | | |
| Investment grade risk exposure | $ | 120 | $ | 3 | 5 years | Corporate Credit/ Foreign Gov. | A- | $ | — | $ | — |
| Below investment grade risk exposure | | 43 | | — | Less than 1 Year | Corporate Credit | B | | 43 | | — |
| Basket credit default swaps [4] | | | | | | | | | | | |
| Investment grade risk exposure | | 250 | | — | 5 years | Corporate Credit | BBB+ | | — | | — |
| Below investment grade risk exposure | | 22 | | 2 | 3 years | Corporate Credit | B+ | | 22 | | — |
| Investment grade risk exposure | | 15 | | (1) | 4 years | CMBS Credit | A | | 5 | | — |
| Below investment grade risk exposure | | 30 | | (5) | Less than 1 Year | CMBS Credit | CCC | | 30 | | 5 |
| **Total [5]** | **$** | **480** | **$** | **(1)** | | | | **$** | **100** | **$** | **5** |

*[1] The average credit ratings are based on availability and are generally the midpoint of the available ratings among Moody's, S&P, Fitch, and Morningstar. If no rating is available from a rating agency, then an internally developed rating is used.*
*[2] Notional amount is equal to the maximum potential future loss amount. These derivatives are governed by agreements, clearing house rules, and applicable law, which include collateral posting requirements. There is no additional specific collateral related to these contracts or recourse provisions included in the contracts to offset losses.*
*[3] The Company has entered into offsetting credit default swaps to terminate certain existing credit default swaps, thereby offsetting the future changes in value of, or losses paid related to, the original swap.*
*[4] Comprised of swaps of standard market indices of diversified portfolios of corporate and CMBS issuers referenced through credit default swaps. These swaps are subsequently valued based upon the observable standard market index.*
*[5] Excludes investments that contain an embedded credit derivative for which the Company has elected the fair value option. For further discussion, see the Fair Value Option section in Note 2 - Fair Value Measurements.*

### Derivative Collateral Arrangements

The Company enters into various collateral arrangements in connection with its derivative instruments, which require both the pledging and accepting of collateral. As of March 31, 2018 and December 31, 2017, the Company pledged cash collateral associated with derivative instruments with a fair value of $7 and $6, respectively, for which the collateral receivable has been recorded in other assets or other liabilities on the Company's Condensed Consolidated Balance Sheets as determined by the Company's election to offset on the balance sheet. The Company also pledged securities collateral associated with derivative instruments with a fair value of $640 and $729, respectively, as of March 31, 2018 and December 31, 2017, which have been included in fixed maturities on the Condensed

## 4. Derivative Instruments (continued)

Consolidated Balance Sheets. The counterparties have the right to sell or re-pledge these securities. In addition, as of March 31, 2018 and December 31, 2017, the Company has pledged initial margin of cash and securities to clearinghouses and exchanges related to OTC-cleared and exchange traded derivatives of $133 and $136, respectively.

As of March 31, 2018 and December 31, 2017 the Company accepted cash collateral associated with derivative instruments of $300 and $310, respectively, which was invested and recorded in the Company's Condensed Consolidated Balance Sheets in fixed maturities and short-term investments with corresponding amounts recorded in other investments or other liabilities as determined by the Company's election to offset on the balance sheet. The Company also accepted securities collateral as of March 31, 2018, with a fair value of $3 all of which the Company has the ability to sell or repledge. As of March 31, 2018, the Company had not repledged securities and did not sell any securities. The non-cash collateral accepted was held in separate custodial accounts and was not included in the Company’s Condensed Consolidated Balance Sheets. As of December 31, 2017, the Company did not hold any securities collateral.

## 5. Deferred Policy Acquisition Costs

**Changes in the DAC Balance**

| | Three months ended March 31, | |
|---|---|---|
| | **2018** | **2017** |
| **Balance, beginning of period** | **$ 405** | **$ 463** |
| Deferred costs | — | 1 |
| Amortization — DAC | (8) | (13) |
| Amortization — Unlock benefit (charge), pre-tax | (3) | 5 |
| Adjustments to unrealized gains and losses on securities AFS and other | 23 | (4) |
| **Balance, end of period** | **$ 417** | **$ 452** |

## 6. Reserves for Future Policy Benefits and Separate Account Liabilities

**Changes in Reserves for Future Policy Benefits**

| | Universal Life-Type Contracts | | | |
|---|---|---|---|---|
| | GMDB/GMWB [1] | Universal Life Secondary Guarantees | Traditional Annuity and Other Contracts [2] [4] | Total Future Policy Benefits |
| **Liability balance as of January 1, 2018** | **$ 873** | **$ 2,940** | **$ 10,669** | **$ 14,482** |
| Incurred [3] | 35 | 87 | 105 | 227 |
| Paid | (28) | — | (194) | (222) |
| Change in unrealized investment gains and losses | — | — | (205) | (205) |
| **Liability balance as of March 31, 2018** | **$ 880** | **$ 3,027** | **$ 10,375** | **$ 14,282** |
| **Reinsurance recoverable asset, as of January 1, 2018** | **$ 464** | **$ 2,940** | **$ 1,742** | **$ 5,146** |
| Incurred [3] | 22 | 87 | (55) | 54 |
| Paid | (22) | — | (12) | (34) |
| **Reinsurance recoverable asset, as of March 31, 2018** | **$ 464** | **$ 3,027** | **$ 1,675** | **$ 5,166** |

| | Universal Life-Type Contracts | | | |
|---|---|---|---|---|
| | GMDB/GMWB [1] | Universal Life Secondary Guarantees | Traditional Annuity and Other Contracts [2] [4] | Total Future Policy Benefits |
| **Liability balance as of January 1, 2017** | **$ 786** | **$ 2,627** | **$ 10,587** | **$ 14,000** |
| Incurred [3] | 24 | 79 | 179 | 282 |
| Paid | (27) | — | (193) | (220) |
| Change in unrealized investment gains and losses | — | — | 28 | 28 |
| **Liability balance as of March 31, 2017** | **$ 783** | **$ 2,706** | **$ 10,601** | **$ 14,090** |
| **Reinsurance recoverable asset, as of January 1, 2017** | **$ 432** | **$ 2,627** | **$ 1,697** | **$ 4,756** |
| Incurred [3] | 17 | 79 | 25 | 121 |
| Paid | (23) | — | (11) | (34) |
| **Reinsurance recoverable asset, as of March 31, 2017** | **$ 426** | **$ 2,706** | **$ 1,711** | **$ 4,843** |

*[1] These liability balances include all GMDB benefits, plus the life-contingent portion of GMWB benefits in excess of the return of the GRB. GMWB benefits up to the return of the GRB are embedded derivatives held at fair value and are excluded from these balances.*
*[2] Represents life-contingent reserves for which the company is subject to insurance and investment risk.*
*[3] Includes the portion of assessments established as additions to reserves as well as changes in estimates affecting the reserves.*
*[4] As of March 31, 2018 and 2017, respectively, includes $277 and $314 of gross reserves and includes $277 and $314 of reinsurance recoverables that relates to business HLIC cedes to Hartford Life and Accident Insurance Company ("HLA").*

## 6. Reserves for Future Policy Benefits and Separate Account Liabilities (continued)

**Account Value by GMDB/GMWB Type as of March 31, 2018**

| | Account Value ("AV") [8] | Net Amount at Risk ("NAR") [9] | Retained Net Amount at Risk ("RNAR") [9] | Weighted Average Attained Age of Annuitant |
|---|---|---|---|---|
| Maximum anniversary value ("MAV") [1] | | | | |
| MAV only | $ 13,276 | $ 2,010 | $ 311 | 71 |
| With 5% rollup [2] | 1,115 | 135 | 45 | 72 |
| With Earnings Protection Benefit Rider ("EPB") [3] | 3,380 | 517 | 80 | 71 |
| With 5% rollup & EPB | 463 | 104 | 23 | 73 |
| Total MAV | 18,234 | 2,766 | 459 | |
| Asset Protection Benefit (APB) [4] | 9,614 | 140 | 95 | 70 |
| Lifetime Income Benefit (LIB) – Death Benefit [5] | 432 | 5 | 5 | 71 |
| Reset [6] (5-7 years) | 2,396 | 6 | 5 | 70 |
| Return of Premium [7] /Other | 8,588 | 58 | 55 | 72 |
| **Subtotal Variable Annuity with GMDB/GMWB [10]** | **$ 39,264** | **$ 2,975** | **$ 619** | **71** |
| Less: General Account Value with GMDB/GMWB | 3,546 | | | |
| **Subtotal Separate Account Liabilities with GMDB** | **35,718** | | | |
| Separate Account Liabilities without GMDB | 72,675 | | | |
| **Total Separate Account Liabilities** | **$ 108,393** | | | |

*[1] MAV GMDB is the greatest of current AV, net premiums paid and the highest AV on any anniversary before age 80 years (adjusted for withdrawals).*
*[2] Rollup GMDB is the greatest of the MAV, current AV, net premium paid and premiums (adjusted for withdrawals) accumulated at generally 5% simple interest up to the earlier of age 80 years or 100% of adjusted premiums.*
*[3] EPB GMDB is the greatest of the MAV, current AV, or contract value plus a percentage of the contract's growth. The contract's growth is AV less premiums net of withdrawals, subject to a cap of 200% of premiums net of withdrawals.*
*[4] APB GMDB is the greater of current AV or MAV, not to exceed current AV plus 25% times the greater of net premiums and MAV (each adjusted for premiums in the past 12 months).*
*[5] LIB GMDB is the greatest of current AV; net premiums paid; or, for certain contracts, a benefit amount generally based on market performance that ratchets over time.*
*[6] Reset GMDB is the greatest of current AV, net premiums paid and the most recent five to seven year anniversary AV before age 80 years (adjusted for withdrawals).*
*[7] ROP GMDB is the greater of current AV or net premiums paid.*
*[8] AV includes the contract holder's investment in the separate account and the general account.*
*[9] NAR is defined as the guaranteed minimum death benefit in excess of the current AV. RNAR represents NAR reduced for reinsurance. NAR and RNAR are highly sensitive to equity markets movements and increase when equity markets decline.*
*[10] Some variable annuity contracts with GMDB also have a life-contingent GMWB that may provide for benefits in excess of the return of the GRB. Such contracts included in this amount have $5.9 billion of total account value and weighted average attained age of 73 years. There is no NAR or retained NAR related to these contracts. Includes $1.9 billion of account value for contracts that had a GMDB at issue but no longer have a GMDB due to certain elections made by policyholders or their beneficiaries.*

**Account Balance Breakdown of Variable Separate Account Investments for Contracts with Guarantees**

| Asset type | As of March 31, 2018 | As of December 31, 2017 |
|---|---|---|
| Equity securities (including mutual funds) | $ 33,097 | $ 34,496 |
| Cash and cash equivalents | 2,621 | 2,712 |
| **Total** | **$ 35,718** | **$ 37,208** |

As of March 31, 2018 and December 31, 2017, approximately 15% and 15%, respectively, of the equity securities (including mutual funds) in the preceding table were funds invested in fixed income securities and approximately 85% and 85%, respectively, were funds invested in equity securities.

For further information on guaranteed living benefits that are accounted for at fair value, such as GMWB, see Note 2 - Fair Value Measurements of Notes to Condensed Consolidated Financial Statements.

## 7. Income Taxes

A reconciliation of the tax provision at the U.S. Federal statutory rate to the provision for income taxes is as follows:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2018 | 2017 |
| Tax provision at the U.S. federal statutory rate | $ 30 | $ 30 |
| Dividends-received deduction ("DRD") | (7) | (18) |
| Foreign related investments | (2) | (1) |
| Tax reform | (2) | — |
| Other | 1 | — |
| **Provision for income taxes** | **$ 20** | **$ 11** |

The separate account DRD is estimated for the current year using information from the most recent return, adjusted for current year equity market performance and other appropriate factors, including estimated levels of corporate dividend payments and level of policy owner equity account balances. The actual current year DRD can vary from estimates based on, but not limited to, changes in eligible dividends received in the mutual funds, amounts of distributions from these mutual funds, and the Company's taxable income before the DRD. The Company evaluates its DRD computations on a quarterly basis.

The Company believes it is more likely than not that all deferred tax assets will be fully realized. In assessing the need for a valuation allowance, management considered future taxable temporary difference reversals, future taxable income exclusive of reversing temporary differences and carryovers, taxable income in open carry back years and other tax planning strategies. From time to time, tax planning strategies could include holding a portion of debt securities with market value losses until recovery, making investments which have specific tax characteristics and business considerations such as asset-liability matching.

Net deferred income taxes include the future tax benefits associated with the net operating loss carryover, alternative minimum tax credit carryover and foreign tax credit carryover as follows:

*Net Operating Loss Carryover*

As of March 31, 2018 and December 31, 2017, the net deferred tax asset included the expected tax benefit attributable to net operating losses of $3,232 and $3,243, respectively. These losses were generated prior to 2017 and are thus eligible for carryback, subject to limits on the period for which they can be carried forward. If not utilized, $3,229 of the losses will expire from 2023 to 2031. Utilization of these loss carryovers is dependent upon the generation of sufficient future taxable income.

Most of the net operating loss carryover originated from the Company's U.S. annuity business, including from the hedging program. Given the continued runoff of the U.S. fixed and variable annuity business, the exposure to taxable losses is significantly lessened. Accordingly, given the expected future ultimate parent's consolidated group earnings, the Company believes sufficient taxable income will be generated in the future to utilize its net operating loss carryover. Although the Company believes there will be sufficient future taxable income to fully recover the remainder of the loss carryover, the Company's estimate of the likely realization may change over time. As a condition of the close, in connection with the pending sale of HLI and subsidiaries, the Company will forego approximately $440 of deferred tax assets associated with net operating loss carryovers and foreign tax credits that will be retained by The Hartford. These deferred tax assets continue to be reflected as an asset in the accompanying financial statements as non-recoverability is contingent on the closing of the sale of the business.

*Alternative Minimum Tax Credit*

As of March 31, 2018 and December 31, 2017, the Company had an alternative minimum tax credit (AMT) carryover, net of a sequestration fee payable, of $218 and $235, respectively, which is reflected as a current income tax receivable within Other Assets in the accompanying condensed consolidated balance sheet. AMT credits may be used to offset a regular tax liability for any taxable year beginning after December 31, 2017 and are refundable at an amount equal to 50 percent of the excess of the minimum tax credit for the taxable year over the amount of the credit allowable for the year against regular tax liability. Any remaining credits not used are refundable for the 2021 tax year to be collected in 2022.

## 7. Income Taxes (continued)

*Foreign Tax Credit Carryover*

As of March 31, 2018 and December 31, 2017, the net deferred tax asset included the expected tax benefit attributable to foreign tax credit carryovers of $18 and $23, respectively. The foreign tax credit carryovers expire from 2023 to 2024. These credits are available to offset regular federal income taxes from future taxable income and although the Company believes there will be sufficient future regular federal taxable income, there can be no certainty that future events will not affect the ability to utilize the credits. Additionally, the use of the foreign tax credits generally depends on the generation of sufficient taxable income to first utilize all of the U.S. net operating loss carryover. However, the Company has identified and purchased certain investments which allow for utilization of the foreign tax credits without first using the net operating loss carryover. Consequently, the Company believes it is more likely than not the foreign tax credit carryover will be fully realized. Accordingly, no valuation allowance has been provided on either the alternative minimum tax carryover or foreign tax credit carryover.

## 8. Commitments and Contingencies

### Litigation

The Company is involved in claims litigation arising in the ordinary course of business with respect to life, disability and accidental death and dismemberment insurance policies and with respect to annuity contracts. The Company accounts for such activity through the establishment of reserves for future policy benefits. Management expects that the ultimate liability, if any, with respect to such ordinary-course claims litigation, after consideration of provisions made for potential losses and costs of defense, will not be material to the consolidated financial condition, results of operations or cash flows of the Company.

The Company is also involved in other kinds of legal actions, some of which assert claims for substantial amounts. Such actions have alleged, for example, bad faith in the handling of insurance claims and improper sales practices in connection with the sale of insurance and investment products. Some of these actions also seek punitive damages. Management expects that the ultimate liability, if any, with respect to such lawsuits, after consideration of provisions made for estimated losses, will not be material to the consolidated financial condition of the Company. Nonetheless, given the large or indeterminate amounts sought in certain of these actions, and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material adverse effect on the Company’s consolidated financial condition, results of operations or cash flows in particular quarterly or annual periods.

### Derivative Commitments

Certain of the Company’s derivative agreements contain provisions that are tied to the financial strength ratings, as set by nationally recognized statistical agencies, of the individual legal entity that entered into the derivative agreement. If the legal entity’s financial strength were to fall below certain ratings, the counterparties to the derivative agreements could demand immediate and ongoing full collateralization and in certain instances enable the counterparties to terminate the agreements and demand immediate settlement of all outstanding derivative positions traded under each impacted bilateral agreement. The settlement amount is determined by netting the derivative positions transacted under each agreement. If the termination rights were to be exercised by the counterparties, it could impact the legal entity’s ability to conduct hedging activities by increasing the associated costs and decreasing the willingness of counterparties to transact with the legal entity. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that are in a net liability position as of March 31, 2018 is $598. Of this $598, the legal entities have posted collateral of $644, which is inclusive of initial margin requirements in the normal course of business. In addition, the Company has posted collateral of $29 associated with a customized GMWB derivative. Based on derivative market values as of March 31, 2018, a downgrade of one or two levels below the current financial strength ratings by either Moody's or S&P would not require additional assets to be posted as collateral. These collateral amounts could change as derivative market values change, as a result of changes in our hedging activities or to the extent changes in contractual terms are negotiated. The nature of the collateral that we post, when required, would be primarily in the form of U.S. Treasury bills, U.S. Treasury notes and government agency securities.

## 9. Transactions with Affiliates

### Parent Company Transactions

Transactions of the Company with Hartford Fire Insurance Company ("Hartford Fire"), Hartford Holdings Inc. ("HHI") and its affiliates relate principally to tax settlements, reinsurance, insurance coverage, rental and service fees, payment of dividends and capital contributions, and employee costs. In addition, the Company has issued structured settlement contracts to fund claims settlements of property casualty insurance companies and self-insured entities. In many cases, the structured settlement contracts are to fund claim settlements of the Company's affiliated property and casualty companies whereby these property and casualty companies transferred funds to another affiliate of the Company to purchase the contracts. Reserves for annuities issued by the Company to The Hartford's property and casualty subsidiaries to fund structured settlement payments where the claimant has not released The Hartford's property and casualty subsidiaries of their primary obligation totaled $675 and $682 as of March 31, 2018 and December 31, 2017, respectively.

Substantially all general insurance expenses related to the Company are initially paid by The Hartford. Expenses are allocated to the Company using specific identification if available, or other applicable methods, that would include a blend of revenue, expense and capital.

In 1990, Hartford Fire guaranteed the obligations of the Company with respect to life, accident and health insurance and annuity contracts issued after January 1, 1990. The guarantee was issued to provide an increased level of security to potential purchasers of the Company's products. Although the guarantee was terminated in 1997, it still covers policies that were issued from 1990 to 1997. As of March 31, 2018 and December 31, 2017, no recoverables have been recorded for this guarantee, as the Company was able to meet these policyholder obligations.

### Reinsurance Ceded to Affiliates

The Company maintains a reinsurance agreement with HLA whereby the Company cedes both group life and group accident and health risk. Under this agreement, the Company ceded group life premium of $6 and $6 for the three months ended March 31, 2018 and 2017, respectively. The Company ceded accident and health premiums to HLA of $16 and $18 for the three months ended March 31, 2018 and 2017, respectively.

## 10. Changes in and Reclassifications From Accumulated Other Comprehensive Income

**Changes in AOCI, Net of Tax for the Three Months Ended March 31, 2018**

| | Changes in | | | |
|---|---|---|---|---|
| | Net Unrealized Gain on Securities | Net Gain on Cash Flow Hedging Instruments | Foreign Currency Translation Adjustments | AOCI, net of tax |
| **Beginning balance** | **$ 1,022** | **$ 4** | **$ (3)** | **$ 1,023** |
| Cumulative effect of accounting changes, net of tax [1] | 182 | — | — | 182 |
| **Adjusted balance, beginning of period** | **1,204** | **4** | **(3)** | **1,205** |
| OCI before reclassifications | (301) | (12) | 1 | (312) |
| Amounts reclassified from AOCI | (3) | (6) | — | (9) |
| OCI, net of tax | (304) | (18) | 1 | (321) |
| **Ending balance** | **$ 900** | **$ (14)** | **$ (2)** | **$ 884** |

*[1] Includes reclassification to retained earnings of $193 of stranded tax effects and $11 of net unrealized gains, after tax, related to equity securities. Refer to Note 1 - Basis of Presentation and Significant Accounting Policies for further information.*

**Reclassifications from AOCI**

| | Three Months Ended March 31, 2018 | Affected Line Item in the Condensed Consolidated Statement of Operations |
|---|---|---|
| **Net Unrealized Gain on Securities** | | |
| Available-for-sale securities | $ 4 | Net realized capital gains (losses) |
| | **4** | **Income before income taxes** |
| | 1 | Income tax expense |
| | **3** | **Net income** |
| **Net Gains on Cash Flow Hedging Instruments** | | |
| Interest rate swaps | 5 | Net investment income |
| Foreign currency swaps | 2 | Net realized capital gains (losses) |
| | **7** | **Income before income taxes** |
| | 1 | Income tax expense |
| | **6** | **Net income** |
| **Total amounts reclassified from AOCI** | **$ 9** | **Net income** |

## 10. Changes in and Reclassifications From Accumulated Other Comprehensive Income (continued)

**Changes in AOCI, Net of Tax for the Three Months Ended March 31, 2017**

| | Changes in | | | |
|---|---|---|---|---|
| | Net Unrealized Gain on Securities | Net Gain on Cash Flow Hedging Instruments | Foreign Currency Translation Adjustments | AOCI, net of tax |
| **Beginning balance** | **$ 693** | **$ 32** | **$ (3)** | **$ 722** |
| OCI before reclassifications | 58 | (2) | — | 56 |
| Amounts reclassified from AOCI | (14) | (5) | — | (19) |
| OCI, net of tax | 44 | (7) | — | 37 |
| **Ending balance** | **$ 737** | **$ 25** | **$ (3)** | **$ 759** |

**Reclassified from AOCI**

| | Three Months Ended March 31, 2017 | Affected Line Item in the Condensed Consolidated Statement of Operations |
|---|---|---|
| **Net Unrealized Gain on Securities** | | |
| Available-for-sale securities | $ 21 | Net realized capital gains (losses) |
| | **21** | **Income before income taxes** |
| | 7 | Income tax expense (benefit) |
| | **14** | **Net income** |
| **Net Gains on Cash Flow Hedging Instruments** | | |
| Interest rate swaps | — | Net realized capital gains (losses) |
| Interest rate swaps | 7 | Net investment income |
| Foreign currency swaps | 1 | Net realized capital losses |
| | **8** | **Income before income taxes** |
| | 3 | Income tax expense (benefit) |
| | **5** | **Net income** |
| **Total amounts reclassified from AOCI** | **$ 19** | **Net income** |

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

*(Dollar amounts in millions, unless otherwise stated)*

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") addresses the financial condition of Hartford Life Insurance Company and its subsidiaries ("Hartford Life Insurance Company" or the "Company") as of and for the period ended March 31, 2018 compared with the comparable 2017 period.

The Company meets the conditions specified in General Instruction H(1) of Form 10-Q and is filing this Form with the reduced disclosure format permitted for wholly-owned subsidiaries of reporting entities. The Company has omitted, from this Form 10-Q, certain information in Part I Item 2 Management's Discussion and Analysis of Financial Condition and Results of Operations. The Company has included, under Item 2, Consolidated Results of Operations to explain any material changes in revenue and expense items for the periods presented. Certain reclassifications have been made to prior period financial information to conform to the current period classifications. This discussion should be read in conjunction with MD&A in Hartford Life Insurance Company's 2017 Form 10-K Annual Report.

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## CONSOLIDATED RESULTS OF OPERATIONS

| Operating Summary | Three Months Ended March 31, | | |
|---|---|---|---|
| | 2018 | 2017 | Change |
| Fee income and other | $ 231 | $ 221 | 5% |
| Earned premiums | 27 | 36 | (25%) |
| Net investment income | 312 | 316 | (1%) |
| Net realized capital gains (losses) | 21 | (46) | 146% |
| **Total revenues** | **591** | **527** | **12%** |
| Benefits, losses and loss adjustment expenses | 325 | 330 | (2%) |
| Amortization of deferred policy acquisition costs ("DAC") | 11 | 8 | 38% |
| Insurance operating costs and other expenses | 108 | 103 | 5% |
| Dividends to policyholders | 2 | — | NM |
| **Total benefits, losses and expenses** | **446** | **441** | **1%** |
| **Income before income taxes** | **145** | **86** | **69%** |
| Income tax expense | 20 | 11 | 82% |
| **Net income** | **$ 125** | **$ 75** | **67%** |

***Three months ended March 31, 2018 compared to the three months ended March 31, 2017***

Net income increased for the three months ended March 31, 2018, as compared to the prior year period, primarily due to higher fee income and other and a change to net realized capital gains, partially offset by lower earned premiums, higher insurance operating costs and other expenses, and higher income tax expense.

Fee income and insurance operating costs and other expenses increased for the three months ended March 31, 2018, as compared to the prior year period, in part related to fee income on certain Hartford HLS mutual funds held in the Company's separate accounts.

Earned premiums were lower primarily due to the run off of the annuity block of business.  Benefits, losses and loss adjustment expenses decreased for the three months ended March 31, 2018, as compared to the prior year period, due to lower death benefits and interest credited primarily due to the continued run off of the annuity block of business.

The increase in DAC amortization for the three months ended March 31, 2018 was due to an unfavorable unlock compared to a prior year favorable unlock, partially offset by the run off of the variable annuity block. For further discussion of the unlock, see MD&A - Estimated Gross Profits.

Net investment income decreased for the three months ended March 31, 2018, compared to the prior year periods, primarily due to lower income from fixed maturities driven by lower asset levels partially offset by an increase in income from limited partnerships and other alternative investments. Income from limited partnership and other alternative investments was above the prior year due to higher returns on private equity investments. For further discussion, see MD&A - Investments Results, Net Investment Income.

Net realized capital gains, before tax, for the three months ended March 31, 2018, were greater than net realized capital losses before tax, in the prior year period, primarily due to a change from losses in 2017 to gains in 2018 on the macro hedging program, partially offset by losses in 2018 on non-qualifying interest rate derivatives. For further discussion of the results, see MD&A - Investment Results, Net Realized Capital Gains (Losses).

The effective tax rate differs from the U.S. statutory rate of 21% and 35% in 2018 and 2017, respectively, primarily due to the separate account dividends received deduction ("DRD"). Income tax expense increased for the three months ended March 31, 2018 compared to the prior year period, primarily due to an increase in income before income taxes, partially offset by a reduction in the U.S. statutory rate to 21% and a reduction in the DRD benefit. For a reconciliation of the income tax provision at the U.S. Federal statutory rate to the provision for income taxes, see Note 7 - Income Taxes of Notes to Condensed Consolidated Financial Statements.

## INVESTMENT RESULTS

**Net Investment Income**

| | Three Months Ended March 31, | | | |
|---|---|---|---|---|
| | 2018 | | 2017 | |
| *(Before tax)* | Amount | Yield [1] | Amount | Yield [1] |
| Fixed maturities [2] | $ 236 | 4.6 % | $ 253 | 4.5 % |
| Equity securities | 3 | 6.6 % | — | 1.0 % |
| Mortgage loans | 34 | 4.8 % | 32 | 4.6 % |
| Policy loans | 18 | 5.0 % | 19 | 5.1 % |
| Limited partnerships and other alternative investments | 24 | 9.7 % | 12 | 5.1 % |
| Other [3] | 8 | | 15 | |
| Investment expense | (11) | | (15) | |
| **Total net investment income** | **312** | **4.6%** | **316** | **4.4%** |
| **Total net investment income excluding limited partnerships and other alternative investments** | **$ 288** | **4.5%** | **$ 304** | **4.4%** |

*[1] Yields calculated using annualized net investment income divided by the monthly average invested assets at amortized cost as applicable, excluding repurchase agreement and securities lending collateral, if any, and derivatives amortized cost.*

*[2] Includes net investment income on short-term investments.*

*[3] Primarily includes income from derivatives that qualify for hedge accounting and hedge fixed maturities.*

***Three months ended March 31, 2018 compared to the three months ended March 31, 2017***

Total net investment income decreased for the three months ended March 31, 2018 compared to the three months ended March 31, 2017 primarily due to lower income from fixed maturities driven by lower asset levels, partially offset by an increase in income from limited partnerships and other alternative investments. Income from limited partnership and other alternative investments was above the prior year due to higher returns on private equity investments.

The annualized net investment income yield, excluding limited partnerships and other alternative investments, was 4.5% for the three months ended March 31, 2018, up from 4.4% for the three months ended March 31, 2017. Excluding non-routine items, which primarily include make-whole payments on fixed maturities, the annualized investment income yield, excluding limited partnerships and other alternative investments, was 4.4% for the three months ended March 31, 2018, up from 4.3% for the three months ended March 31, 2017.

The new money yield for the three months ended March 31, 2018, excluding certain U.S. Treasury securities and cash equivalent securities, was approximately 4.1%, which was above the average yield of sales and maturities of 4.0% for the same period. For the three months ended March 31, 2018, the new money yield of 4.1% increased from 3.9% for the three months ended March 31, 2017 due to higher interest rates.

We expect the annualized net investment income yield for the 2018 calendar year, excluding limited partnerships and other alternative investments, to be slightly above the portfolio yield earned in 2017 due to the run-off of lower yielding businesses. This assumes that reinvestment rates continue to be above the average yield of sales and maturities. The estimated impact on net investment income is subject to change as the composition of the portfolio changes through portfolio management and trading activities and changes in market conditions.

**Net Realized Capital Gains (Losses)**

| | Three Months Ended March 31, | |
|---|---|---|
| *(Before tax)* | 2018 | 2017 |
| Gross gains on sales | $ 21 | $ 50 |
| Gross losses on sales | (17) | (29) |
| Equity Securities [1] | 11 | — |
| Results of variable annuity hedge program | | |
| GMWB derivatives, net | 4 | 18 |
| Macro hedge program | 18 | (86) |
| Total results of variable annuity hedge program | 22 | (68) |
| Transactional foreign currency revaluation | (14) | (18) |
| Non-qualifying foreign currency derivatives | 17 | 17 |
| Other, net [2] | (19) | 2 |
| **Net realized capital gains (losses)** | **$ 21** | **$ (46)** |

*[1] Effective January 1, 2018, with adoption of new accounting standards for equity securities, includes all changes in fair value and trading gains and losses for equity securities at fair value.*

*[2] Primarily consists of changes in value of non-qualifying derivatives, including credit derivatives, interest rate derivatives used to manage duration, and embedded derivatives associated with modified coinsurance reinsurance contracts.*

*Gross Gains and Losses on Sales*

- Gross gains and losses on sales for the three months ended March 31, 2018 were primarily the result of duration, liquidity and credit management within corporate and US Treasury securities.
- Gross gains and losses on sales for the three months ended March 31, 2017 were primarily the result of duration, liquidity and credit management within corporate, residential mortgage-backed securities ("RMBS") and US Treasury securities.

*Variable Annuity Hedge Program*

- For the three months ended March 31, 2018, the net gain on the combined GMWB derivative, net which include the GMWB product, reinsurance and hedging derivatives was primarily due to non-market factors.
- For the three months ended March 31, 2018,the gains on the macro hedge program were primarily due to gains of $24 driven by an increase in equity market volatility and $18 driven by a decline in domestic equity markets, partially offset by losses of $21 driven by time decay on options and $4 driven by increases in long term interest rates.
- For the three months ended March 31, 2017, the net gain on the combined GMWB derivatives, net, which include the GMWB product, reinsurance and hedging derivatives, was primarily due to gains of $10 due to a decline in equity market volatility and $7 driven by policyholder behavior.
- For the three months ended March 31, 2017, the losses on the macro hedge program were primarily due to losses of $46 driven by an improvement in domestic equity markets, $26 driven by a decline in equity market volatility and $19 driven by time decay on options

*Other, Net*

- Other, net loss for the three months ended March 31, 2018, included losses on interest rate derivatives partially offset by gains associated with modified coinsurance reinsurance contracts driven by an increase in interest rates. Modified coinsurance reinsurance contracts are accounted for as embedded derivatives and transfer to the reinsurer of the investment experience related to the assets supporting the reinsured policies.
- Other, net gain for the three months ended March 31, 2017 primarily related to gains on interest rate derivatives used to manage duration.

## CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements, in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"), requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ, and in the past have differed, from those estimates. The Company's critical accounting estimates are discussed in Part II, Item 7 MD&A in the Company's 2017 Form 10-K Annual Report. The following discussion updates certain of the Company's critical accounting estimates as of March 31, 2018.

***Estimated Gross Profits***

Estimated gross profits ("EGPs") are used in the valuation and amortization of the DAC asset. Portions of EGPs are also used in the valuation of reserves for death and other insurance benefit features on variable annuity and other universal life-type contracts.

**Significant EGP-based Balances**

| | As of March 31, 2018 | As of December 31, 2017 |
|---|---|---|
| DAC [1] | $ 417 | $ 405 |
| Death and Other Insurance Benefit Reserves, net of reinsurance [2] | $ 416 | $ 409 |

*[1] For additional information on DAC, see Note 5 - Deferred Policy Acquisition Costs of Notes to Condensed Consolidated Financial Statements.*
*[2] For additional information on death and other insurance benefit reserves, see Note 6 - Reserves for Future Policy Benefits and Separate Account Liabilities of Notes to Condensed Consolidated Financial Statements.*

**Benefit (Charge) to Income, Net of Tax, as a Result of Unlock**

| | Three Months Ended March 31, | |
|---|---|---|
| | **2018** | **2017** |
| DAC | $ (3) | $ 5 |
| Death and Other Insurance Benefit Reserves | — | 5 |
| **Total (pre tax)** | **(3)** | **10** |
| Income tax effect | (1) | 4 |
| **Total (after tax)** | **$ (2)** | **$ 6** |

The Unlock charge, after tax, for the three months ended March 31, 2018 was primarily due to separate account returns being below our aggregated estimated returns during the period largely due to a decrease in equity markets.

The Unlock benefit, after tax, for the three months ended March 31, 2017 was largely due to separate account returns being above our aggregated estimated returns during the period, partially offset by higher than expected lapses.

**Use of Estimated Gross Profits in Amortization and Reserving**

For most variable annuity contracts, the Company estimates gross profits over 20 years as EGPs emerging subsequent to that time frame are immaterial. Products sold in a particular year are aggregated into cohorts. Future gross profits for each cohort are projected over the estimated lives of the underlying contracts, based on future account value projections for variable annuity products. The projection of future account values requires the use of certain assumptions including: separate account returns; separate account fund mix; fees assessed against the contract holder's account balance; full and partial surrender rates; interest credited; mortality; and the extent and duration of hedging activities and hedging costs. Changes in these assumptions and changes to other policyholder behavior assumptions such as GMWB utilization, reaction to price increases, and asset allocations cause EGPs to fluctuate which impacts earnings.

The Company determines EGPs from a single deterministic reversion to mean ("RTM") separate account return projection which is an estimation technique commonly used by insurance entities to project future separate account returns. Through this estimation technique, the Company's DAC model is adjusted to reflect actual account values at the end of each quarter. Through consideration of recent market returns, the Company will unlock, or adjust, projected returns over a future period so that the account value returns to the long-term expected rate of return, providing that those projected returns do not exceed certain caps.

**Market Unlocks**

In addition to updating assumptions in the fourth quarter of each year, an Unlock revises EGPs, on a quarterly basis, to reflect the Company's current best estimate assumptions and market updates of policyholder account value. The Unlock for future separate account returns is determined each quarter. Under RTM, the expected long term rate of return is 8.3%. The annual return assumed over the next five years of approximately 0.0% was calculated based on the return needed over that period to produce an 8.3% return since March of 2009, the date the Company adopted the RTM estimation technique to project future separate account returns. Based on the expected trend of policy lapses and annuitizations, the Company expects approximately 55% of its block of variable annuities to run off in the next 5 years.

**Aggregate Recoverability**

After each quarterly Unlock, the Company also tests the aggregate recoverability of DAC by comparing the DAC balance to the present value of future EGPs. The margin between the DAC balance and the present value of future EGPs for variable annuities was 35% as of March 31, 2018. If the margin between the DAC asset and the present value of future EGPs is exhausted, then further reductions in EGPs would cause portions of DAC to be unrecoverable and the DAC asset would be written down to equal future EGPs.

## CAPITAL RESOURCES AND LIQUIDITY

Capital resources and liquidity represent the financial resources of Hartford Life Insurance Company and its ability to generate strong cash flows, borrow funds at competitive rates and raise new capital to meet operating needs over the next twelve months.

### Liquidity Requirements and Sources of Capital

The Hartford has an intercompany liquidity agreement that allows for short-term advances of funds among The Hartford Financial Services Group, Inc. ("HFSG Holding Company") and certain affiliates of up to $2.0 billion for liquidity and other general corporate purposes. The Connecticut Insurance Department ("CTDOI") granted approval for certain affiliated insurance companies that are parties to the agreement to treat receivables from a parent, including the HFSG Holding Company, as admitted assets for statutory accounting purposes. As of March 31, 2018, there were no amounts outstanding or borrowed by the Company.

### Derivative Commitments

Certain of the Company's derivative agreements contain provisions that are tied to the financial strength ratings, as set by nationally recognized statistical rating agencies, of the individual legal entity that entered into the derivative agreement. If the legal entity's financial strength were to fall below certain ratings, the counterparties to the derivative agreements could demand immediate and ongoing full collateralization and in certain instances demand immediate settlement of all outstanding derivative positions traded under each impacted bilateral agreement. The settlement amount is determined by netting the derivative positions transacted under each agreement. If the termination rights were to be exercised by the counterparties, it could impact the legal entity's ability to conduct hedging activities by increasing the associated costs and decreasing the willingness of counterparties to transact with the legal entity. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that are in a net liability position as of March 31, 2018 is $598. This $598, the legal entities have posted collateral of $644, which is inclusive of initial margin requirements in the normal course of business. In addition, the Company has posted collateral of $29 associated with a customized GMWB derivative. Based on derivative market values as of March 31, 2018, a downgrade of one or two levels below the current financial strength ratings by either Moody's or S&P would not require additional assets to be posted as collateral. These collateral amounts could change as derivative market values change, as a result of changes in our hedging activities or to the extent changes in contractual terms are negotiated. The nature of the collateral that we would post, if required, would be primarily in the form of U.S. Treasury bills, U.S. Treasury notes and government agency securities.

### Insurance Operations

Total general account contractholder obligations are supported by $29 billion of cash and total general account invested assets, which includes the following fixed maturity securities and short-term investments to meet liquidity needs.

| | As of March 31, 2018 |
|---|---|
| Fixed maturities | $ 21,810 |
| Short-term investments | 1,493 |
| Cash | 277 |
| Less: Derivative collateral | 940 |
| **Total** | **$ 22,640** |

Capital resources available to fund liquidity upon contractholder surrender or termination are a function of the legal entity in which the liquidity requirement resides. Obligations related to life and annuity insurance products will be generally funded by both HLIC and Hartford Life and Annuity Insurance Company ("HLAI"); obligations related to retirement and institutional investment products will be generally funded by HLIC.

The Company is a member of the Federal Home Loan Bank of Boston ("FHLBB"). Membership allows the Company access to collateralized advances, which may be used to support various spread-based business and enhance liquidity management. FHLBB membership requires the company to own member stock and advances require the purchase of activity stock. The amount of advances that can be taken are dependent on the asset types pledged to secure the advances. The CTDOI will permit the Company to pledge up to $0.9 billion in qualifying assets to secure FHLBB advances for 2018. The pledge limit is recalculated annually based on statutory admitted assets and capital and surplus. The Company would need to seek the prior approval of the CTDOI in order to exceed these limits. As of March 31, 2018, HLIC had no advances outstanding under the FHLBB facility.

**Contractholder Obligations**

| | | As of March 31, 2018 |
|---|---|---|
| Total Contractholder obligations | $ | 151,600 |
| Less: Separate account assets [1] | | 108,393 |
| **General account contractholder obligations** | **$** | **43,207** |
| **Composition of General Account Contractholder Obligations** | | |
| Contracts without a surrender provision and/or fixed payout dates [2] | $ | 18,588 |
| Fixed MVA annuities [3] | | 4,593 |
| Other [4] | | 20,026 |
| **General account contractholder obligations** | **$** | **43,207** |

[1] *In the event customers elect to surrender separate account assets, the Company will use the proceeds from the sale of the assets to fund the surrender, and the Company's liquidity position will not be impacted. In many instances the Company will receive a percentage of the surrender amount as compensation for early surrender (surrender charge), increasing the Company's liquidity position. In addition, a surrender of variable annuity separate account or general account assets (see the following) will decrease the Company's obligation for payments on guaranteed living and death benefits.*

[2] *Relates to contracts such as payout annuities, institutional notes, term life, group benefit contracts, or death and living benefit reserves, which cannot be surrendered for cash.*

[3] *Relates to annuities that are recorded in the general account under U.S. GAAP as the contractholders are subject to the Company's credit risk, although these annuities are held in a statutory separate account. In the statutory separate account, the Company is required to maintain invested assets with a fair value greater than or equal to the MVA surrender value of the Fixed MVA contract. In the event assets decline in value at a greater rate than the MVA surrender value of the Fixed MVA contract, the Company is required to contribute additional capital to the statutory separate account. The Company will fund these required contributions with operating cash flows or short-term investments. In the event that operating cash flows or short-term investments are not sufficient to fund required contributions, the Company may have to sell other invested assets at a loss, potentially resulting in a decrease in statutory surplus. As the fair value of invested assets in the statutory separate account are at least equal to the MVA surrender value of the Fixed MVA contract, surrender of Fixed MVA annuities will have an insignificant impact on the liquidity requirements of the Company.*

[4] *Surrenders of, or policy loans taken from, as applicable, these general account liabilities, may be funded through operating cash flows of the Company, available short-term investments, or the Company may be required to sell fixed maturity investments to fund the surrender payment. These obligations include the general account option for individual variable annuities and the variable life contracts of the former Individual Life business, the general account option for annuities of the former Retirement Plans business and universal life contracts sold by the former Individual Life business. Sales of fixed maturity investments could result in the recognition of significant realized losses and insufficient proceeds to fully fund the surrender amount. In this circumstance, the Company may need to take other actions, including enforcing certain contract provisions which could restrict surrenders and/or slow or defer payouts. The Company has ceded reinsurance in connection with the sales of its Retirement Plans and Individual Life businesses to MassMutual and Prudential, respectively. The reinsurance transactions do not extinguish the Company's primary liability on the insurance policies issued under these businesses.*

### Off-Balance Sheet Arrangements and Aggregate Contractual Obligations

There have been no material changes to the Company's off-balance sheet arrangements and aggregate contractual obligations since the filing of the Company's 2017 Form 10-K Annual Report.

### Dividends

Dividends to the Company from its insurance subsidiaries are restricted by insurance regulation. The payment of dividends by Connecticut-domiciled insurers is limited under the insurance holding company laws of Connecticut. These laws require notice to and approval by the state insurance commissioner for the declaration or payment of any dividend, which, together with other dividends or distributions made within the preceding twelve months, exceeds the greater of (i) 10% of the insurer's policyholder surplus as of December 31 of the preceding year or (ii) net income (or net gain from operations, if such company is a life insurance company) for the twelve-month period ending on the thirty-first day of December last preceding, in each case determined under statutory insurance accounting principles. In addition, if any dividend of a domiciled insurer exceeds the insurer's earned surplus or certain other thresholds as calculated under applicable state insurance law, the dividend requires the prior approval of the domestic regulator. In addition to statutory limitations on paying dividends, the Company also takes other items into consideration when determining dividends from subsidiaries. These considerations include, but are not limited to, expected earnings and capitalization of the subsidiary, regulatory capital requirements and liquidity requirements of the individual operating company.

On December 4, 2017, the Hartford announced it had entered into a definitive agreement to sell the Company's parent, Hartford Life Inc., to a group of investors led by Cornell Capital LLC, Atlas Merchant Capital LLC, TRB Advisors LP, Global Atlantic Financial Group, Pine Brook and J. Safra Group. Prior to the expected close in 2018, the Company anticipates paying $300 in dividends to its parent, subject to approval by the Connecticut Insurance Commissioner. Other intercompany transactions between HLIC and HFSG Holding Company will be net settled prior to closing. During the first three months of 2018, there were no HLIC dividends. The sale is anticipated to close by June 30, 2018, subject to regulatory approval and other closing conditions.

**Cash Flows**

| | Three Months Ended March 31, | |
|---|---|---|
| | 2018 | 2017 |
| Net cash provided by operating activities | $ 267 | $ 342 |
| Net cash used for investing activities | $ (187) | $ (467) |
| Net cash used for financing activities | $ (340) | $ (193) |
| Cash - end of period | $ 277 | $ 236 |

Net cash provided by operating activities decreased in 2018 as compared to 2017 primarily due to a decrease in income tax refunds received and a decrease in net operating cash received due to the continued runoff of the business.

Net cash used by investing activities in 2018 primarily relates to net payments for short-term investments of $460 and net payments for derivatives of $156, partially offset by net proceeds from available-for-sale securities of $393, net proceeds from mortgage loans of $35 and net proceeds from equity securities at fair value of $24. Net cash used by investing activities in 2017 primarily relates to net payments for short-term investments of $289 and net payments for derivatives of $51.

Net cash used for financing activities in 2018 relates to net payments for deposits, transfers and withdrawals for investments and universal life-type contracts of $200, in combination with a net decrease in securities loaned or sold under agreements to repurchase of $136. Net cash used for financing activities in 2017 relates to net payments for deposits, transfers and withdrawals for investments and universal life-type contracts of $307, and return of capital to parent of $298, partially offset by net decrease in securities loaned or sold under agreements to repurchase of $419.

Operating cash flows in both periods have been adequate to meet liquidity requirements.

**Ratings**

Ratings can have an impact the Company's reinsurance and derivative contracts. There can be no assurance that the Company's ratings will continue for any given period of time or that they will not be changed. In the event the Company's ratings are downgraded, reinsurance contracts may be adversely impacted and the Company may be required to post additional collateral on certain derivative contracts.

The following table summarizes Hartford Life Insurance Company's significant member companies' financial ratings from the major independent rating organizations as of April 24, 2018:

| ***Insurance Financial Strength Ratings:*** | A.M. Best | Standard & Poor's | Moody's |
|---|---|---|---|
| Hartford Life Insurance Company | B++ | BBB | Baa3 |
| Hartford Life and Annuity Insurance Company | B++ | BBB | Baa3 |

These ratings are not a recommendation to buy or hold any of the Company's securities and they may be revised or revoked at any time at the sole discretion of the rating organization.

The agencies consider many factors in determining the final rating of an insurance company. One consideration is the relative level of statutory capital and surplus (referred to collectively as "statutory capital") necessary to support the business written and is reported in accordance with accounting practices prescribed by the applicable state insurance department.

**Statutory Capital**

The Company's aggregate statutory capital, as prepared in accordance with the National Association of Insurance Commissioners' Accounting Practices and Procedures Manual ("US STAT"), was $3.6 billion as of March 31, 2018 and December 31, 2017. The statutory capital amount as of December 31, 2017 is based on actual statutory filings with the applicable regulatory authorities. The statutory capital amount as of March 31, 2018, is an estimate, as the first quarter 2018 statutory filings have not yet been made.

## IMPACT OF NEW ACCOUNTING STANDARDS

For a discussion of accounting standards, see Note 1 - Basis of Presentation and Significant Accounting Policies of Notes to Consolidated Financial Statements included in the Company's 2017 Form 10-K Annual Report and Note 1 - Basis of Presentation and Significant Accounting Policies of Notes to Condensed Consolidated Financial Statements in this Form 10-Q.

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

The information contained in the Financial Risk Management section of Management's Discussion and Analysis of Financial Condition and Results of Operations of the Company's 2017 Form 10-K Annual Report is incorporated herein by reference.

## Item 4. CONTROLS AND PROCEDURES

### *Evaluation of Disclosure Controls and Procedures*

The Company's principal executive officer and its principal financial officer, based on their evaluation of the Company's disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) have concluded that the Company's disclosure controls and procedures are effective for the purposes set forth in the definition thereof in Exchange Act Rule 13a-15(e) as of March 31, 2018.

### *Changes in Internal Control Over Financial Reporting*

There was no change in the Company's internal control over financial reporting that occurred during the Company's current fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

## Part II. OTHER INFORMATION

### Item 1. LEGAL PROCEEDINGS

The Company is involved in claims litigation arising in the ordinary course of business with respect to group and individual insurance products, such as life, disability and accidental death and dismemberment insurance policies, and with respect to annuity contracts. The Company accounts for such activity through the establishment of reserves for future policy benefits. Management expects that the ultimate liability, if any, with respect to such ordinary-course claims litigation, after consideration of provisions made for potential losses and costs of defense, will not be material to the consolidated financial condition, results of operations or cash flows of the Company.

The Company is also involved in other kinds of legal actions, some of which assert claims for substantial amounts. Such actions have alleged, for example, bad faith in the handling of insurance claims and improper sales practices in connection with the sale of insurance and investment products. Some of these actions also seek punitive damages. Management expects that the ultimate liability, if any, with respect to such lawsuits, after consideration of provisions made for estimated losses, will not be material to the consolidated financial condition of the Company. Nonetheless, given the large or indeterminate amounts sought in certain of these actions, and the inherent unpredictability of litigation, it is possible that an adverse outcome in certain matters could, from time to time, have a material adverse effect on the Company’s consolidated financial condition, results of operations or cash flows in particular quarterly or annual periods.

### Item 1A. RISK FACTORS

Investing in the Company involves risk. In deciding whether to invest in the securities of the Company, you should carefully consider the risk factors disclosed in Item 1A of Part I of the Company's Annual Report on Form 10-K for the year ended December 31, 2017, any of which could have a significant or material adverse effect on the business, financial condition, operating results or liquidity of the Company. This information should be considered carefully together with the other information contained in this report and the other reports and materials filed by the Company with the SEC.

### Item 6. EXHIBITS

See Exhibits Index on page 62

## HARTFORD LIFE INSURANCE COMPANY AND SUBSIDIARIES
## FORM 10-Q

## FOR THE QUARTER ENDED MARCH 31, 2018
## EXHIBITS INDEX

| Exhibit No. | |
|---|---|
| **3.01** | Restated Certificate of Incorporation of Hartford Life Insurance Company (the "Company"), effective April 2, 1982, as amended by Amendment No. 1, effective August 3, 1984, as amended by Amendment No. 2 effective December 31, 1996, as amended by Amendment No. 3, effective July 25, 2000 (incorporated herein by reference to Exhibit 3.01 to the Company's Form 10-K for the fiscal year ended December 31, 2004) |
| **3.02** | Amended and Restated By-Laws of Hartford Life Insurance Company, effective March 15, 2013, (incorporated herein by reference to Exhibit 3.01 to the Company's Form 10-Q for the quarterly period ended March 31, 2013) |
| **12.01** | Computation of Ratio of Earnings to Fixed Charges ** |
| **15.01** | Deloitte & Touche LLP Letter of Awareness ** |
| **31.01** | Certification of Brion S. Johnson pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 ** |
| **31.02** | Certification of Peter F. Sannizzaro pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 ** |
| **32.01** | Certification of Brion S. Johnson pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 ** |
| **32.02** | Certification of Peter F. Sannizzaro 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.DEF** | XBRL Taxonomy Extension Definition Linkbase ** |
| **101.LAB** | XBRL Taxonomy Extension Label Linkbase ** |
| **101.PRE** | XBRL Taxonomy Extension Presentation Linkbase ** |

**Filed with the Securities and Exchange Commission as an Exhibit to this report.

## SIGNATURE

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 hereunto duly authorized.

HARTFORD LIFE INSURANCE COMPANY

/s/ Peter F. Sannizzaro

Peter F. Sannizzaro
Senior Vice President and Principal Accounting Officer
(Principal Financial Officer and duly authorized signatory)

April 30, 2018

**Exhibit 12.01**

**HARTFORD LIFE INSURANCE COMPANY**

**COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES**

*(In millions)*

| | Three Months Ended March 31, | Years Ended December 31, | | | |
|---|---|---|---|---|---|
| | **2018** | **2017** | **2016** | **2015** | **2014** |
| **EARNINGS:** | | | | | |
| Income before income taxes | $ 145 | $ 376 | $ 356 | $ 530 | $ 861 |
| Add: Total fixed charges, before interest credited to contractholders | — | — | — | — | — |
| Total earnings, before interest credited to contractholders | $ 145 | $ 376 | $ 356 | $ 530 | $ 861 |
| Interest credited to contractholders [1] | 156 | 628 | 631 | 682 | 725 |
| **Total earnings** | **$ 301** | **$ 1,004** | **$ 987** | **$ 1,212** | **$ 1,586** |
| | | | | | |
| **FIXED CHARGES:** | | | | | |
| Total fixed charges, before interest credited to contractholders | $ — | $ — | $ — | $ — | $ — |
| Interest credited to contractholders [1] | 156 | 628 | 631 | 682 | 725 |
| **Total fixed charges** | **$ 156** | **$ 628** | **$ 631** | **$ 682** | **$ 725** |
| **RATIOS:** | | | | | |
| Total earnings to total fixed charges [2] | 1.9 | 1.6 | 1.6 | 1.8 | 2.2 |

*[1] Interest credited to contractholders includes interest credited on general account assets and interest credited on consumer notes.*

*[2] Ratios of less than one-to-one are presented as "NM" or not meaningful.*

**Exhibit 15.01**

April 30, 2018

Hartford Life Insurance Company
One Hartford Plaza
Hartford, Connecticut

We have reviewed, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the unaudited interim financial information of Hartford Life Insurance Company and subsidiaries (the “Company”) for the periods ended March 31, 2018, and 2017, as indicated in our report dated April 30, 2018; because we did not perform an audit, we expressed no opinion on that information.

We are aware that our report referred to above, which is included in the Company’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, is incorporated by reference in Registration Statement Nos. 333-214334, 333-214335, 333-214336, 333-214337, 333-214338, 333-214339, 333-223485, and 333-223486 on Form S-3.

We also are aware that the aforementioned report, pursuant to Rule 436(c) under the Securities Act of 1933, is not considered a part of the Registration Statement prepared or certified by an accountant or a report prepared or certified by an accountant within the meaning of Sections 7 and 11 of that Act.

/s/ DELOITTE & TOUCHE LLP
Hartford, Connecticut

**Exhibit 31.01**

**HARTFORD LIFE INSURANCE COMPANY**

**CERTIFICATION PURSUANT TO**
**18 U.S.C. SECTION 1350**
**AS ENACTED BY SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Brion S. Johnson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Hartford Life Insurance Company;

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 controls 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 officers 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: April 30, 2018

By: /s/ Brion S. Johnson
Brion S. Johnson
President

**Exhibit 31.02**

**HARTFORD LIFE INSURANCE COMPANY**

**CERTIFICATION PURSUANT TO**
**18 U.S.C. SECTION 1350**
**AS ENACTED BY SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Peter F. Sannizzaro, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Hartford Life Insurance Company;

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 controls 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 officers 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: | April 30, 2018 |
| By: | /s/ Peter F. Sannizzaro |
| | Peter F. Sannizzaro |
| | Senior Vice President and Principal Accounting Officer |

**Exhibit 32.01**

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ENACTED BY SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q for the period ended March 31, 2018 of Hartford Life Insurance Company (the “Company”), filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned hereby certifies, pursuant to 18 U.S.C. section 1350 as enacted by section 906 of the Sarbanes-Oxley Act of 2002, that:

1) The Report fully complies with the requirements of section 13(a) or section 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Brion S. Johnson

Brion S. Johnson
President
Date: April 30, 2018

**Exhibit 32.02**

**CERTIFICATION PURSUANT TO**
**18 U.S.C. SECTION 1350**
**AS ENACTED BY SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q for the period ended March 31, 2018 of Hartford Life Insurance Company (the "Company"), filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned hereby certifies, pursuant to 18 U.S.C. section 1350 as enacted by section 906 of the Sarbanes-Oxley Act of 2002, that:

1) The Report fully complies with the requirements of section 13(a) or section 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Peter F. Sannizzaro

Peter F. Sannizzaro
Senior Vice President and Principal Accounting Officer
Date: April 30, 2018