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

FORM 10-K

The registrant meets the conditions set forth in General Instruction (I)(1)(a) and (b) of Form 10-K and is therefore filing this Form with the reduced disclosure format.

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 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 0-31248

ALLSTATE LIFE INSURANCE COMPANY
(Exact name of registrant as specified in its charter)

Illinois	**36-2554642**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

3075 Sanders Road, Northbrook, Illinois 60062
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (847) 402-5000

Securities registered pursuant to Section 12(b) of the Act: None

Securities registered pursuant to Section 12(g) of the Act: Common Stock, par value $227.00 per share

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes ___ No _X_

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes ___ No _X_

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes _X_ No ___

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. _X_

Indicate by check mark 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 the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ____	Accelerated filer ____
Non-accelerated filer _X_	Smaller reporting company ____
	Emerging growth company ____

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

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

None of the common equity of the registrant is held by non-affiliates. Therefore, the aggregate market value of the common equity held by non-affiliates of the registrant is zero.

As of February 22, 2019, the registrant had 23,800 common shares, $227 par value, outstanding, all of which are held by Allstate Insurance Company.

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* Omitted pursuant to General Instruction I(2) of Form 10-K

Part I

Item 1. Business

Allstate Life Insurance Company was organized in 1957 as a stock life insurance company under the laws of the State of Illinois. Allstate Life Insurance Company, together with its subsidiaries, provides life insurance and voluntary accident and health insurance. In this document, we refer to Allstate Life Insurance Company as "Allstate Life" or "ALIC" and to Allstate Life and its wholly owned subsidiaries as the "Allstate Life Group" or the "Company".

Allstate Life is a wholly owned subsidiary of Allstate Insurance Company, a stock property-liability insurance company organized under the laws of the State of Illinois. All of the outstanding stock of Allstate Insurance Company is owned by Allstate Insurance Holdings, LLC, which is wholly owned by The Allstate Corporation, a publicly owned holding company incorporated under the laws of the State of Delaware. In this document, we refer to Allstate Insurance Company as "AIC" and to The Allstate Corporation and its consolidated subsidiaries as "Allstate", the "Parent Group" or the "Corporation". The Allstate Corporation is one of the largest publicly held personal lines insurers in the United States. Widely known through the "You're In Good Hands With Allstate®" slogan, Allstate is the 3rd largest personal property and casualty insurer in the United States on the basis of 2017 statutory direct premiums written according to A.M. Best.

In this annual report on Form 10-K, we occasionally refer to statutory financial information. All domestic United States insurance companies are required to prepare statutory-basis financial statements. As a result, industry data is available that enables comparisons between insurance companies, including competitors that are not required to prepare financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP"). We frequently use industry publications containing statutory financial information to assess our competitive position.

Products and Distribution

The Allstate Life Group sells life insurance through Allstate exclusive agencies and exclusive financial specialists. We also sell voluntary accident and health insurance through workplace enrolling independent agents in New York. We previously offered and continue to have in force deferred fixed annuities and immediate fixed annuities (including standard and sub-standard structured settlements). We also previously offered variable annuities and substantially all of this business is reinsured. Allstate exclusive agencies and exclusive financial specialists also sell non-proprietary products, including mutual funds, fixed and variable annuities, disability insurance, and long-term care insurance to provide a broad suite of protection and retirement products.

The table below lists our current distribution channels with the associated products and target customers.

Distribution Channels	Proprietary Products	Target Customers
Allstate exclusive agencies and exclusive financial specialists	Term life insurance Whole life insurance Interest-sensitive life insurance Variable life insurance (in New York only effective September 2017)	Customers who prefer local personalized advice and service and are brand-sensitive
Workplace enrolling independent agents in New York	Workplace life and voluntary accident and health insurance: Interest-sensitive and term life insurance Short-term disability income insurance Accident and critical illness insurance	Middle market consumers in New York with family financial protection needs employed by small, medium, and large size firms

Competition

We compete on a variety of factors, including product offerings, brand recognition, financial strength and ratings, price, distribution and the level of customer service. The market for life insurance continues to be highly fragmented and competitive. As of December 31, 2017, there were approximately 360 groups of life insurance companies in the United States. According to A.M. Best, as of December 31, 2017, the Allstate Life Group is the nation's 21st largest issuer of life insurance and related business on the basis of 2017 ordinary life insurance in force and 39th largest on the basis of 2017 statutory admitted assets.

Geographic Markets

We sell life insurance throughout the United States. We also sell voluntary accident and health insurance in New York. The Allstate Life Group is authorized to sell various types of these products in all 50 states, the District of Columbia and Puerto Rico.

The following table reflects, in percentages, the principal geographic distribution of direct statutory premiums and annuity considerations for the Allstate Life Group for 2018, based on information contained in statements filed with state insurance departments. Direct statutory premiums and annuity considerations exclude reinsurance assumed. No other jurisdiction accounted for more than 5 percent of the direct statutory premiums and annuity considerations.

New York	29.1%
California	8.8
Texas	7.3
Florida	5.6
Illinois	5.2

Strategy

Our overall strategy is to broaden Allstate's customer relationships and value proposition. We also distribute non-proprietary retirement products offered by third-party providers. Our target customers are those who prefer local personalized advice and service and are brand-sensitive.

Our product positioning provides solutions to help meet customer needs during various phases of life. Term and whole life insurance products offer basic life protection solutions. Universal life and financial planning solutions cover more advanced needs and are provided primarily in New York. Allstate exclusive agencies partner with exclusive financial specialists to deliver life and retirement solutions. These specialists have expertise with advanced life and retirement cases and other more complex customer needs. Successful partnerships assist agencies with building stronger and deeper customer relationships. Sales producer education and technology improvements are being made to ensure agencies have the tools and information needed to help customers meet their needs and build personal relationships as trusted advisors.

We exited the continuing sale of annuities over an eight year period from 2006 to 2014, reflecting our expectations of declining returns. As a result, the declining volume of business is managed with a focus on increasing lifetime economic value. Both the deferred and immediate annuity businesses have been adversely impacted by the historically low interest rate environment. Our immediate annuity business has also been impacted by medical advancements that have resulted in annuitants living longer than anticipated when many of these contracts were originated. We focus on the distinct risk and return profiles of the specific products when developing investment and liability management strategies. The level of legacy deferred annuities in force has been significantly reduced and the investment portfolio and crediting rates are proactively managed to improve profitability of the business while providing appropriate levels of liquidity. The investment portfolio supporting our immediate annuities is managed to ensure the assets match the characteristics of the liabilities and provide the long-term returns needed to support this business. To better match the long-term nature of our immediate annuities, we use performance-based investments in which we have ownership interests and a greater proportion of return is derived from idiosyncratic assets or operating performance. We continue to review strategic options to reduce exposure and improve returns of the business. As a result, we may take additional operational and financial actions that offer return improvement and risk reduction opportunities.

REGULATION

The Allstate Life Group is subject to extensive regulation, primarily at the state level. The method, extent and substance of such regulation vary by state but generally have their source in statutes that establish standards and requirements for conducting the business of insurance and that also delegate regulatory authority to a state agency. These rules have a substantial effect on our business and relate to a wide variety of matters, including insurer solvency and statutory surplus sufficiency, reserve adequacy, insurance company licensing and examination, agent licensing, policy forms, rate setting, the nature and amount of investments, claims practices, participation in guaranty funds, transactions with affiliates, the payment of dividends, underwriting standards, statutory accounting methods, trade practices, privacy regulation and data security, corporate governance and risk management. In addition, state legislators and insurance regulators continue to examine the appropriate nature and scope of state insurance regulation. For a discussion of statutory financial information, see Note 14 of the consolidated financial statements. For a discussion of regulatory contingencies, see Note 11 of the consolidated financial statements. Notes 11 and 14 are incorporated in this Part I, Item 1 by reference.

As part of an effort to strengthen the regulation of the financial services market, the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") was enacted in 2010. Dodd-Frank created the Federal Insurance Office ("FIO") within the U.S. Department of the Treasury. The FIO monitors the insurance industry, provides advice to the Financial Stability Oversight Council ("FSOC"), represents the U.S. on international insurance matters, and studies the current regulatory system.

Additional regulations or new requirements may emerge from the activities of various regulatory entities, including the Federal Reserve Board, FIO, FSOC, the National Association of Insurance Commissioners ("NAIC"), and the International Association of Insurance Supervisors ("IAIS"), that are evaluating solvency and capital standards for insurance company groups. In addition, the NAIC has adopted amendments to its model holding company law that have been adopted by some jurisdictions. The outcome of these actions is uncertain; however, these actions may result in changes in the level of capital and liquidity required by insurance holding companies.

We cannot predict whether any specific state or federal measures will be adopted to change the nature or scope of the regulation of insurance or what effect any such measures would have on Allstate.

Agent and Broker Compensation. In recent years, several states considered new legislation or regulations regarding the compensation of agents and brokers by insurance companies. The proposals ranged in nature from new disclosure requirements to new duties on insurance agents and brokers in dealing with customers.

Limitations on Dividends by Insurance Subsidiaries. Allstate Life may receive dividends from time to time from its subsidiaries. When received, these dividends represent a source of cash from which Allstate Life may meet some of its obligations. If a subsidiary is an insurance company, its ability to pay dividends may be restricted by state laws regulating insurance companies. For additional information regarding those restrictions, see Note 14 of the consolidated financial statements.

Guaranty Funds. Under state insurance guaranty fund laws, insurers doing business in a state can be assessed, up to prescribed limits, in order to cover certain obligations of insolvent insurance companies. We do not anticipate any material adverse financial impact from these assessments.

Investment Regulation. Our insurance subsidiaries are subject to regulations that require investment portfolio diversification and that limit the amount of investment in certain categories. Failure to comply with these rules leads to the treatment of non-conforming investments as non-admitted assets for purposes of measuring statutory surplus. Further, in some instances, these rules require divestiture of non-conforming investments.

Variable Life Insurance and Registered Fixed Annuities. The sale and administration of variable life insurance and registered fixed annuities with market value adjustment features are subject to extensive regulatory oversight at the federal and state level, including regulation and supervision by the Securities and Exchange Commission ("SEC") and the Financial Industry Regulatory Authority ("FINRA").

Broker-Dealers, Investment Advisors and Investment Companies. The Allstate Life Group entities that operate as broker-dealers, registered investment advisors, and investment companies are subject to regulation and supervision by the SEC, FINRA and/or, in some cases, state securities administrators. Certain state and federal regulators, such as the SEC, are considering implementation of "best interest" standards. Such proposals, if effective, could impact products provided by Allstate agencies, their sales processes, volumes, and producer compensation arrangements.

Division Statute. On November 27, 2018, the Illinois General Assembly passed legislation authorizing a statute that makes available a process by which a domestic insurance company may divide into two or more domestic insurance companies. The statute could be used to isolate an existing block of life, health or annuity business for sale to a third party. The statute could also be used to divide continuing blocks of insurance business from insurance business that is no longer marketed, or otherwise has been discontinued, into separate companies with separate capital. Before a plan of division can be effected, it must be approved according to the organizational documents of the dividing insurer and submitted for approval by the Illinois Department of Insurance. The bill was effective January 1, 2019. The Illinois Department of Insurance will likely promulgate rules and the rule-making process will take several months.

Privacy Regulation and Data Security. Federal law and the laws of many states require financial institutions to protect the security and confidentiality of customer information and to notify customers about their policies and practices relating to collection and disclosure of customer information and their policies relating to protecting the security and confidentiality of that information. Federal law and the laws of many states also regulate disclosures and disposal of customer information. Congress, state legislatures, and regulatory authorities are expected to consider additional regulation relating to privacy and other aspects of customer information.

EMPLOYEES AND OTHER SHARED SERVICES

The Allstate Life Group has no employees. Instead, we primarily use the services of employees of AIC, our direct parent. We also make use of other services and facilities provided by AIC and other members of the Parent Group. These services and facilities include space rental, utilities, building maintenance, human resources, investment management, finance, information technology and legal services. We reimburse our affiliates for these services and facilities under a variety of agreements.

OTHER INFORMATION

"Allstate" is a very well-recognized brand name in the United States. We use the name "Allstate" extensively in our business, along with related service marks, logos, and slogans, such as "You're In Good Hands With Allstate®". Our rights in the United States to these names, service marks, logos and slogans continue as long as we continue to use them in commerce. Many service marks used by Allstate are the subject of renewable U.S. and/or foreign service mark registrations. We believe that these service marks are important to our business and we intend to maintain our rights to them.

Forward-Looking Statements

This report contains “forward-looking statements” that anticipate results based on our estimates, assumptions and plans that are subject to uncertainty. These statements are made subject to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements do not relate strictly to historical or current facts and may be identified by their use of words like “plans,” “seeks,” “expects,” “will,” “should,” “anticipates,” “estimates,” “intends,” “believes,” “likely,” “targets” and other words with similar meanings. These statements may address, among other things, our strategy for growth, product development, investment results, regulatory approvals, market position, expenses, financial results, litigation and reserves. We believe that these statements are based on reasonable estimates, assumptions and plans. Forward-looking statements speak only as of the date on which they are made, and we assume no obligation to update any forward-looking statements as a result of new information or future events or developments. In addition, forward-looking statements are subject to certain risks or uncertainties that could cause actual results to differ materially from those communicated in these forward-looking statements. These risks and uncertainties include, but are not limited to, those described in Part 1, “Item 1A. Risk Factors” and elsewhere in this report and those described from time to time in our other reports filed with the Securities and Exchange Commission.

Item 1A. Risk Factors

In addition to the normal risks of business, significant risks and uncertainties, including those listed below, apply to us as an insurer, investor and provider of other products and financial services. Risks have been categorized as follows: insurance industry, financial, investment, operational, regulatory and legal, and strategic risks. These cautionary statements should be considered carefully together with other factors discussed elsewhere in this document, in filings with the Securities and Exchange Commission ("SEC") or in materials incorporated therein by reference.

Insurance Industry Risks

Reinsurance may be unavailable at current levels and prices, which may limit our ability to write new business

Market conditions beyond our control impact the availability and cost of the reinsurance we purchase. No assurances can be made that reinsurance will remain continuously available to us to the same extent and on the same terms and rates as is currently available. If we were unable to maintain our current level of reinsurance or purchase new reinsurance protection in amounts that we consider sufficient at acceptable prices, we would have to either accept an increase in our risk exposure, reduce our insurance writings, or develop or seek other alternatives.

Reinsurance subjects us to counterparty risk and may not be adequate to protect us against losses arising from ceded insurance, which could have a material effect on our results of operations and financial condition

The collectability of reinsurance recoverables is subject to uncertainty arising from a number of factors, including changes in market conditions, whether insured losses meet the qualifying conditions of the reinsurance contract and whether reinsurers or their affiliates have the financial capacity and willingness to make payments under the terms of a reinsurance treaty or contract. Our inability to recover from a reinsurer could have a material effect on our results of operations and financial condition.

Underwriting changes and actual experience could materially affect profitability and financial condition

Our product pricing includes long-term assumptions regarding investment returns, mortality, morbidity, persistency and operating costs and expenses of the business. We establish target returns for each product based upon these factors and the average amount of capital we must hold to support in-force contracts taking into account rating agencies and regulatory requirements. We monitor and manage pricing and overall sales mix to achieve target new business returns on a portfolio basis, which could result in the discontinuation or de-emphasis of products and a decline in sales. Profitability from new business emerges over a period of years depending on the nature and life of the product and is subject to variability as actual results may differ from pricing assumptions. Additionally, many of our products have fixed or guaranteed terms that limit our ability to increase revenues or reduce benefits, including credited interest, once the product has been issued.

Profitability depends on the sufficiency of premiums and contract charges to cover mortality and morbidity benefits, the adequacy of investment spreads, the persistency of policies, the management of market and credit risks associated with investments, and the management of operating costs and expenses within anticipated pricing allowances. Legislation and regulation of the insurance marketplace and products could also affect our profitability and financial condition.

Changes in reserve estimates may adversely affect our results of operations

The reserve for life-contingent contract benefits payable under insurance policies, including traditional life insurance, life-contingent immediate annuities and voluntary accident and health insurance products, is computed on the basis of long-term actuarial assumptions of future investment yields, mortality, morbidity, persistency and expenses. Future investment yields may be lower than our current projections. Mortality may improve due to medical advancements, resulting in policyholders living longer than anticipated. We periodically review the adequacy of these reserves and if future experience differs significantly from assumptions, adjustments to reserves and amortization of deferred policy acquisition costs ("DAC") may be required that could have a material effect on our results of operations. We also review these policies for circumstances where projected profits would be recognized in early years followed by projected losses in later years. If this circumstance exists, we will be required to accrue a liability during the period of profits to offset the losses at such time as the future losses are expected to commence. Changes to accounting guidance for long-duration insurance contracts such as traditional life, life-contingent immediate annuities and certain voluntary accident and health insurance products may have a material effect on reserves and shareholder's equity and could adversely impact financial strength ratings. For a description of changes in accounting standards see Note 2 of the consolidated financial statements.

Changes in estimates of profitability on interest-sensitive life products may adversely affect our profitability and financial condition

DAC related to interest-sensitive life contracts is amortized in proportion to actual historical gross profits and estimated future gross profits ("EGP") over the estimated lives of the contracts. The principal assumptions for determining the amount of EGP are mortality, persistency, expenses, investment returns, including capital gains and losses on assets supporting contract liabilities, interest crediting rates to contractholders, and the effects of any hedges. Updates to these assumptions, commonly referred to as

"DAC unlocking," could result in accelerated amortization of DAC and thereby adversely affect our profitability and financial condition. In addition, assumption changes impact the reserve for secondary guarantees on interest-sensitive life insurance and could also lead to volatility in net income.

Financial Risks

Conditions in the global economy and capital markets could adversely affect our business and results of operations

Conditions in the global economy and capital markets could have an adverse effect on our business and results of operations. This includes high and sustained unemployment in certain regions and lower labor participation rates in others, reduced consumer spending, low economic growth, lower real estate prices, substantial increases in delinquencies on consumer debt, the relatively low availability of credit and ineffective central bank monetary policies.

Stressed conditions, volatility and disruptions in global capital markets, particular markets or financial asset classes could adversely affect our investment portfolio. Disruptions in one market or asset class can also spread to other markets or asset classes. In addition, events in the U.S. or foreign markets, such as the United Kingdom's planned exit from the European Union in March 2019, can impact the global economy and capital markets. The impact of such events is difficult to predict.

In the years since the financial crisis, the central banks of most developed countries have pursued highly accommodative monetary policies. Higher volatility and less certainty in capital markets may continue as the U.S. Federal Reserve adjusts interest rates and as global monetary policies diverge.

On July 27, 2017, the U.K. Financial Conduct Authority (the "FCA"), which regulates the London interbank offered rate ("LIBOR"), announced that the FCA will no longer persuade or compel banks to submit rates for the calculation of LIBOR after 2021. This announcement indicates that the continuation of LIBOR on the current basis is not guaranteed after 2021, and LIBOR may be discontinued or modified by 2021.

The Federal Reserve Bank of New York began publishing the Secured Overnight Financing Rate ("SOFR") in April 2018 as an alternative for LIBOR. SOFR is a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. A transition away from the widespread use of LIBOR to SOFR or another benchmark rate may occur over the course of the next few years.

We have exposure to LIBOR-based financial instruments, such as derivatives held in our investment portfolio. Certain of our contracts allow for the use of an alternative benchmark rate if LIBOR is no longer available. At this time, we cannot predict the overall effect of the modification or discontinuation of LIBOR or the establishment of alternative benchmark rates.

Protectionist trade policy actions, such as tariffs and quotas, could have an adverse effect on our investment results, as an increase in the scope and size of tariffs could disrupt global supply chains and increase inflationary pressures which may have an adverse effect on economic activity.

General economic conditions could adversely affect us by impacting consumer behavior and pressuring investment results. Consumer behavior changes may include decreased demand for our products. In addition, holders of interest-sensitive life insurance and annuity products may engage in an elevated level of discretionary withdrawals of contractholder funds. Investment results could be adversely affected as deteriorating financial and business conditions affect the issuers of the securities in the investment portfolio.

A downgrade in financial strength ratings may have an adverse effect on our competitive position, the marketability of our product offerings, liquidity, results of operations and financial condition

Financial strength ratings are important factors in establishing the competitive position of insurance companies and generally have an effect on an insurance company's business. Rating agencies continuously review our financial performance and condition. They could downgrade or change the outlook on our ratings due to a change in the financial profile of one of our insurance companies, a change in a rating agency's determination of the amount of risk-adjusted capital required to maintain a particular rating, an increase in the perceived risk of our investment portfolio, a reduced confidence in management or our business strategy, as well as a number of other considerations that may or may not be under our control. Our insurance financial strength ratings from A.M. Best, S&P Global Ratings and Moody's are subject to continuous review and the retention of current ratings cannot be assured. A downgrade in any of these ratings could have a material effect on our sales, competitiveness, retention, the marketability of our product offerings, liquidity, results of operations and financial condition.

Adverse capital and credit market conditions may significantly affect our ability to meet liquidity needs or obtain credit on acceptable terms

In periods of extreme volatility and disruption in the capital and credit markets, liquidity and credit capacity may be severely restricted. In such circumstances, our ability to obtain capital to fund operating expenses, financing costs, capital expenditures or acquisitions may be limited, and the cost of any such capital may be significant. Our access to additional financing depends on a variety of factors such as market conditions, the general availability of credit, the overall availability of credit to our industry, our credit ratings and credit capacity, as well as lenders' perception of our long- or short-term financial prospects. Similarly, our access to funds may be impaired if regulatory authorities or rating agencies take negative actions. If a combination of these factors were to occur, our internal sources of liquidity may prove to be insufficient and in such case, we may not be able to successfully obtain additional financing on favorable terms.

The realization of deferred tax assets is subject to uncertainty

The realization of our deferred tax assets, net of valuation allowance, if any, is based on the assumption that we will be able to fully utilize the deductions that are ultimately recognized for tax purposes. However, actual results may differ from our assumptions if adequate levels of taxable income are not attained.

Investment Risks

Our investment portfolio is subject to market risk and declines in credit quality, which may adversely affect investment income and cause realized and unrealized losses

We continually reevaluate investment management strategies since we are subject to the risk of loss due to adverse changes in interest rates, credit spreads, equity prices, currency exchange rates and the liquidity of investments. Such adverse changes may occur due to changes in monetary policy and the economic climate, the liquidity of a market or market segment, investor return expectations and/or risk tolerance, insolvency or financial distress of key market makers or participants, or changes in market perceptions of credit worthiness. The performance and value of our investment portfolio is also subject to market risk related to investments in real estate, loans and securities collateralized by real estate. Moreover, some of our investment strategies target individual investments with unique risks that are less highly correlated with broad market risks. Although we expect these investments to increase total portfolio returns over time, their performance may vary from and under-perform relative to the market.

Our investment portfolio is subject to risks associated with potential declines in credit quality related to specific issuers or specific industries and a general weakening of the economy, which are typically reflected through credit spreads. Credit spread is the additional yield on fixed income securities and loans above the risk-free rate, typically referenced as the yield on U.S. Treasury securities, that market participants require to compensate them for assuming credit, liquidity and/or prepayment risks. Credit spreads vary in response to the market's perception of risk and liquidity in a specific issuer or specific sector. Additionally, credit spreads are influenced by the credit ratings, and the reliability of those ratings, published by external rating agencies. Although we have the ability to use derivative financial instruments to manage these risks, the effectiveness of such instruments varies with liquidity and other conditions that may impact derivative and bond markets. Adverse economic conditions or other factors could cause declines in the quality and valuation of our investment portfolio that would result in realized and unrealized losses. The concentration of our investment portfolio in any particular issuer, industry, collateral type, group of related industries, geographic sector or risk type could have an adverse effect on our investment portfolio and consequently on our results of operations and financial condition.

A decline in market interest rates or credit spreads could have an adverse effect on investment income as we invest cash in new investments that may earn less than the portfolio's average yield. In a low interest rate environment, borrowers may prepay or redeem securities more quickly than expected as they seek to refinance at lower rates. Sustained low interest rates could also lead to purchases of longer-term or riskier assets in order to obtain adequate investment yields, which could also result in a duration gap when compared to the duration of liabilities. Alternatively, longer-term assets may be sold and reinvested in shorter-term assets that may have lower yields in anticipation of rising interest rates. An increase in market interest rates or credit spreads or a decrease in liquidity could have an adverse effect on the value of our investment portfolio by decreasing the fair values of the fixed income securities that comprise a substantial majority of our investment portfolio.

The amount and timing of net investment income from our performance-based investments, which primarily includes limited partnership interests, can fluctuate significantly as a result of the underlying investments' performance. Additionally, the timing of capital contributions and distributions depends on particular events, schedules for making distributions, and cash needs related to the investments. As a result, the amount of net investment income recognized and cash contributed to or received from these investments can vary substantially from quarter to quarter. Significant volatility or market downturns could adversely impact net investment income, valuation and returns on these investments. Additionally, these investments are less liquid than similar, publicly-traded investments. A decline in market liquidity could impact our ability to sell these investments.

The determination of the amount of realized capital losses recorded for impairments of our investments includes subjective judgments and could materially impact our results of operations and financial condition

The determination of the amount of realized capital losses recorded for impairments vary by investment type and is based upon our ongoing evaluation and assessment of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available. We update our evaluations regularly and reflect changes in other-than-temporary impairments in our results of operations. The assessment of whether other-than-temporary impairments have occurred is based on our case-by-case evaluation of the underlying reasons for the decline in fair value. Our conclusions on such assessments are judgmental and include assumptions and projections of future cash flows and price recovery which may ultimately prove to be incorrect as assumptions, facts and circumstances change. Furthermore, historical trends may not be indicative of future impairments and additional impairments may need to be recorded in the future.

The determination of the fair value of our fixed income and equity securities includes subjective judgments and could materially impact our results of operations and financial condition

In determining fair values, we principally use the market approach which utilizes market transaction data for the same or similar instruments. The degree of judgment involved in determining fair values is inversely related to the availability of market observable information. The fair value of assets may differ from the actual amount received upon the sale of an asset in an orderly transaction between market participants at the measurement date. Moreover, the use of different valuation assumptions may have a material effect on the assets' fair values. The difference between amortized cost and fair value for fixed income securities, net of deferred income taxes and related DAC, deferred sales inducement costs and reserves for life-contingent contract benefits, is reflected as a component of accumulated other comprehensive income in shareholder's equity. Changing market conditions could materially affect the determination of the fair value of securities and, as a result, unrealized net capital gains and losses associated with fixed income securities and realized capital gains and losses associated with equity securities recorded in net income could vary significantly.

Changes in market interest rates or performance-based investment returns may lead to a significant decrease in the profitability of spread-based products

Our ability to manage the in force spread-based products, such as fixed annuities, is dependent upon maintaining profitable spreads between investment returns and interest crediting rates. When market interest rates decrease or remain at low levels, proceeds from investments that have matured or have been prepaid or sold may be reinvested at lower yields, reducing investment spread. Lowering interest crediting rates on some products in such an environment can partially offset decreases in investment yield. However, these changes could be limited by regulatory minimum rates or contractual minimum rate guarantees on many contracts and may not match the timing or magnitude of changes in investment yields. Increases in market interest rates can have negative effects, for example by increasing the attractiveness of other investments to our customers, which can lead to increased surrenders at a time when fixed income investment asset values are lower as a result of the increase in interest rates. This could lead to the sale of fixed income securities at a loss. In addition, changes in market interest rates impact the valuation of derivatives embedded in equity-indexed annuity contracts that are not hedged, which could lead to volatility in net income. Additionally, the amount of net investment income from performance-based investments backing the immediate annuity liabilities can vary substantially from quarter to quarter. Significant volatility or market downturns could adversely impact net investment income, valuation, returns, and collectability of undistributed appreciation. We have certain international limited partnership investments that could be impacted by investment, economic, regulatory and legal risks that could adversely affect our operating results.

Operational Risks

The failure in cyber or other information security controls, as well as the occurrence of events unanticipated in our disaster recovery systems and business continuity planning, could result in a loss or disclosure of confidential information, damage to our reputation, additional costs and impairment of our ability to conduct business effectively

We depend heavily on computer systems, mathematical algorithms and data to perform necessary business functions. We collect, use, store or transmit an increasingly large amount of confidential, proprietary, and other information (including personal information of customers or employees) in connection with the operation of our business. Despite our implementation of a variety of security measures, we are increasingly exposed to the risk that our computer systems could be subject to cyberattacks and unauthorized access, such as physical and electronic break-ins or unauthorized tampering. We have experienced threats to our data and systems, including malware and computer virus attacks, unauthorized access, system failures and disruptions. Events such as these could jeopardize the information processed and stored in, and transmitted through, our computer systems and networks, or otherwise cause interruptions or malfunctions in our operations, which could result in damage to our reputation, financial losses, litigation, increased costs, regulatory penalties and/or customer dissatisfaction or loss. These risks may increase in the future as we continue to expand internet and mobile strategies and develop additional remote connectivity solutions to serve our employees and customers.

Third parties to whom we outsource certain of our functions are also subject to these risks. While we review and assess our third party providers' cybersecurity controls, as appropriate, and make changes to our business processes to manage these risks, we cannot assure that our attempts to keep such information confidential will always be successful.

Our increased use of third party services (e.g. cloud technology and software as a service) can make it more difficult to identify and respond to cyberattacks in any of the above situations due to the dynamic nature of these technologies. These risks could increase as vendors adopt and use more cloud-based software services rather than software services which can be run within Allstate data centers.

Personal information, as described above, is subject to an increasing number of federal, state, local and international laws and regulations regarding privacy and data security, as well as contractual commitments. The European Commission adopted the

General Data Protection Regulation, which greatly increases the jurisdictional reach of its laws and adds a broad array of requirements for handling personal data, such as the public disclosure of significant data breaches, privacy impact assessments, data portability and the appointment of data protection officers. Further, the New York State Department of Financial Services has issued cybersecurity regulations for financial services institutions, including banking and insurance entities, that impose a variety of detailed security measures on covered entities. The NAIC has also adopted the Insurance Data Security Model Law, which, if adopted as state legislation, would establish standards for data security and for the investigation of and notification to insurance commissioners of cybersecurity events. See the Regulation section, Privacy Regulation and Data Security, for additional information. Any failure or perceived failure by us to comply with such obligations may result in governmental enforcement actions and fines, litigation, or public statements against us by consumer advocacy groups or others, and could cause our employees and customers to lose trust in us, which could have an adverse effect on our reputation and business.

Our cyber and information security program is continually enhanced in order to be resilient against emerging threats and improve our ability to detect and respond to attempts to gain unauthorized access to our data and systems. Cybersecurity system changes we implement that are designed to update and enhance our protective measures to address new threats may increase the risk of a system or process failure or the creation of a gap in our security measures due to the complexity and interconnectedness of our systems and processes. Any such failure or gap could adversely affect our business, reputation, results of operations or financial condition.

From time to time, The Allstate Corporation and its Audit Committee engage independent advisors to assess and consult on cybersecurity matters. We also perform an on-going assessment of the quality of our program and identify opportunities to strengthen our cybersecurity controls. However, due to the increasing frequency and sophistication of such cyberattacks and changes in technology, there can be no assurance that a cyberattack will not take place with negative consequences, including an adverse effect to our business, results of operations and financial condition.

The occurrence of a disaster, such as a natural catastrophe, pandemic, industrial accident, blackout, terrorist attack, war, cyberattack, computer virus, insider threat, unanticipated problems with our disaster recovery systems, or a support failure from external providers, could have an adverse effect on our ability to conduct business and on our results of operations and financial condition, particularly if those events affect our computer-based data processing, transmission, storage, and retrieval systems or destroy data. If a significant number of employees were unavailable in the event of a disaster, our ability to effectively conduct business could be severely compromised. Our systems are also subject to compromise from internal threats. Our policies, procedures and technical safeguards may be insufficient to prevent or detect improper access to confidential, personal or proprietary information by employees, vendors and other third parties who may have otherwise legitimate access to our systems.

Any of these may result in our incurring substantial costs and other negative consequences, including an adverse effect on our business, results of operations and financial condition.

Misconduct or fraudulent acts by employees, agents and third parties may adversely affect our profitability and financial condition

The insurance industry is inherently susceptible to both past and future misconduct or fraudulent activities by its employees, representative agents, vendors, customers and other third parties. These activities could include, but are not limited to, fraud against the company, its employees and its customers through illegal or prohibited activities, unauthorized acts or representations, unauthorized use or disclosure of personal or proprietary information, deception, and misappropriation of funds or other benefits.

Management has implemented a risk management framework and a supporting system of internal controls that seeks to provide oversight and monitoring of key activities, designed control and technology systems to mitigate such exposures, and regularly conducts assessments and measurements of certain, key supporting controls. However, the system of controls may not sufficiently contemplate all potential exposures and the performance of these controls may not be consistently executed in a manner necessary to sufficiently mitigate these risks. As a result, we could be exposed to financial loss, disruption of business, regulatory assessments and reputational harm. These impacts have the potential to have a material adverse effect on our profitability and financial condition.

A large-scale pandemic, the continued threat or occurrence of terrorism or military actions may have an adverse effect on the level of claim losses we incur, the value of our investment portfolio, our competitive position, marketability of product offerings, liquidity and results of operations

A large-scale pandemic, the continued threat or occurrence of terrorism, within the U.S. and abroad, or military and other actions, and heightened security measures in response to these types of threats may cause significant volatility and losses in our investment portfolio from declines in the equity markets and from interest rate changes in the U.S., Europe and elsewhere, and result in loss of life, property damage, disruptions to commerce and reduced economic activity. Some of the assets in our investment portfolio may be adversely affected by declines in the equity markets and reduced economic activity caused by a large-scale pandemic or the continued threat of terrorism. Additionally, a large-scale pandemic or terrorist act could have a material effect on sales, profitability, competitiveness, marketability of product offerings, liquidity and operating results.

Loss of key vendor relationships or failure of a vendor to protect our data, confidential and proprietary information, or personal information of our customers or employees could affect our operations

We rely on services and products provided by many vendors in the U.S. and abroad. These include, for example, vendors of computer hardware and software, and vendors of investment management services. In the event that any vendor suffers a bankruptcy or otherwise becomes unable to continue to provide products or services, or fails to protect our confidential, proprietary, and other information (including personal information of customers or employees), we may suffer operational impairments and financial losses.

We may be subject to the risks and costs associated with intellectual property infringement, misappropriation and third party claims

We rely on a combination of contractual rights and copyright, trademark, patent and trade secret laws to establish and protect our intellectual property. Although we use a broad range of measures to protect intellectual property rights, third parties may infringe or misappropriate intellectual property. We may have to litigate to enforce and protect intellectual property and to determine its scope, validity or enforceability, which could divert significant resources and prove unsuccessful. An inability to protect intellectual property could have a material effect on our business.

We may be subject to claims by third parties for patent, trademark or copyright infringement or breach of usage rights. Any such claims and any resulting litigation could result in significant expense and liability. If third party providers or we are found to have infringed a third-party intellectual property right, either of us could be enjoined from providing certain products or services or from utilizing and benefiting from certain methods, processes, copyrights, trademarks, trade secrets or licenses. Alternatively, we could be required to enter into costly licensing arrangements with third parties or implement a costly work-around. Any of these scenarios could have a material effect on our business and results of operations.

Regulatory and Legal Risks

Regulatory reforms, and the more stringent application of existing regulations, may make it more expensive for us to conduct our business

The federal government has enacted comprehensive regulatory reforms for financial services entities. As part of a larger effort to strengthen the regulation of the financial services market, certain reforms are applicable to the insurance industry.

The Federal Insurance Office ("FIO") and Financial Stability Oversight Council ("FSOC") were established and the federal government may enact reforms that affect the state insurance regulatory framework. We can make no assurances regarding the potential impact of state or federal measures that change the nature or scope of insurance and financial regulation.

Such regulatory reforms, additional legislative or regulatory requirements and any further stringent enforcement of existing regulations, including increased privacy and cybersecurity regulations, may make it more expensive for us to conduct business and limit our ability to grow or to achieve profitability.

Changes in tax laws may affect our operations, decrease sales and profitability of products and adversely affect our financial condition

Under current federal and state income tax law, certain products, primarily life insurance, receive beneficial tax treatment. This favorable treatment may give some products a competitive advantage over noninsurance products. Congress and various state legislatures occasionally consider legislation that could reduce or eliminate the beneficial policyholder tax treatment currently applicable to life insurance. Congress and state legislatures also consider proposals to reduce the taxation of certain products or investments that may compete with life insurance. Legislation that increases the taxation on insurance products or reduces the taxation on competing products could lessen the advantage or create a disadvantage for some products by making them less competitive. Such proposals, if adopted, could impact the demand for certain of our life insurance products that offer income tax deferrals and may have a material effect on our profitability and financial condition and could result in the surrender of some existing contracts and policies.

We may not be able to mitigate the capital impact associated with statutory reserving and capital requirements, potentially resulting in a need to increase prices, reduce sales of certain products, and/or accept a return on equity below original levels assumed in pricing

Regulatory capital and reserving requirements affect the amount of capital required to be maintained by our insurance companies. Changes to capital or reserving requirements or regulatory interpretations may result in additional capital held in our insurance companies. To support statutory reserves for certain life insurance products, we currently utilize reinsurance and captive reserve financing solutions for financing a portion of our statutory reserve requirements deemed to be non-economic. Changes to capital or reserving requirements or an inability to continue existing financing as a result of market conditions or otherwise could require us to increase prices, reduce our sales of certain products, and/or accept a return on equity below original levels assumed in pricing.

Changes in accounting standards issued by the Financial Accounting Standards Board or other standard-setting bodies may adversely affect our results of operations and financial condition

Our financial statements are subject to the application of generally accepted accounting principles, which are periodically revised, interpreted and/or expanded. Accordingly, we may be required to adopt new guidance or interpretations, which may have a material effect on our results of operations and financial condition that is either unexpected or has a greater impact than expected and could adversely impact financial strength ratings. For a description of changes in accounting standards that are currently pending and, if known, our estimates of their expected impact, see Note 2 of the consolidated financial statements.

Losses from legal and regulatory actions may be material to our results of operations, cash flows and financial condition

We are involved in various legal actions, which may include class action litigation, challenging a range of company practices and coverage provided by our insurance products, some of which involve claims for substantial or indeterminate amounts. We are also involved in various regulatory actions and inquiries, including market conduct exams by state insurance regulatory agencies. In the event of an unfavorable outcome in any of these matters, the ultimate liability may be in excess of amounts currently accrued, if any, and may be material to our results of operations, cash flows and financial condition.

We are subject to extensive regulation and potential further restrictive regulation may increase operating costs and limit growth

As insurance companies, broker-dealers, investment advisers, and investment companies, many of our subsidiaries are subject to extensive laws and regulations that are complex and subject to change. Changes may lead to additional expenses, increased legal exposure, increased required reserves or capital, and limits on our ability to grow or to achieve targeted profitability. Moreover, laws and regulations are administered and enforced by a number of governmental authorities, each of which exercises a degree of interpretive latitude, including state insurance regulators; state securities administrators; state attorneys general as well as federal agencies including the SEC, the Financial Industry Regulatory Authority, the Department of Labor, and the U.S. Department of Justice. Consequently, we are subject to the risk that compliance with any particular regulator's or enforcement authority's interpretation of a legal issue may not result in compliance with another's interpretation of the same issue, particularly when compliance is judged in hindsight.

In addition, there is risk that any particular regulator's or enforcement authority's interpretation of a legal issue may change over time to our detriment. There is also a risk that changes in the overall legal environment may cause us to change our views regarding the actions we need to take from a legal risk management perspective. This would necessitate changes to our practices that may adversely impact our business. Furthermore, in some cases, these laws and regulations are designed to protect or benefit the interests of a specific constituency rather than a range of constituencies. For example, state insurance laws and regulations are generally intended to protect or benefit purchasers or users of insurance products. These laws and regulations may limit our ability to grow or to improve the profitability of our business.

Strategic Risks

Our future growth and profitability are dependent in part on our ability to successfully operate in an insurance industry that is highly competitive

Many of our primary competitors have well-established national reputations and market similar products.

Because of the competitive nature of the insurance industry, there can be no assurance that we will continue to compete effectively within the industry, or that competitive pressures will not have a materially unfavorable effect on our business, results of operations or financial condition. This includes competition for producers such as exclusive financial specialists. Growth and retention may be materially affected if we are unable to attract and retain effective producers or if those producers further emphasize sales of non-life insurance products. Similarly, growth and retention may be impacted if customer preferences change, including customer demand for direct distribution channels or an increase in point-of-sale distribution channels. Furthermore, certain competitors operate using a different company structure and therefore may have dissimilar profitability and return targets.

Our ability to successfully operate may also be impaired if we are not effective in developing the talent and skills of our human resources, attracting and assimilating new executive talent into our organization, retaining experienced and qualified employees or deploying human resource talent consistently to achieve our business goals. Factors that affect our ability to attract and retain such employees include our compensation and benefits and our reputation.

Competition from within the insurance industry and from businesses outside the insurance industry, including the technology industry, for qualified employees has often been intense and we have experienced increased competition in hiring and retaining employees. The unexpected loss of key personnel, control functions, information technology, operations or other areas could have a material adverse impact on our business because of the loss of their skills, knowledge of our products and offerings and years of industry experience and, in some cases, the difficulty of promptly finding qualified replacement personnel.

Divestitures of businesses may not produce anticipated benefits resulting in operating difficulties, which may adversely affect our results of operations and financial condition

We may divest portions of our businesses either through a sale or financial arrangements. These transactions may result in continued financial involvement in the divested businesses, such as through reinsurance, guarantees or other financial arrangements, following the transaction. Nonperformance or decline in the financial strength ratings by those divested businesses could affect our future financial results through an increase in policy lapses, decreased future premiums, additional payment obligations, higher costs or asset write-downs. We reinsure life insurance and payout annuity business from Lincoln Benefit Life Company ("LBL"). Premiums and contract charges assumed from LBL totaled $690 million in 2018. A decline in LBL's financial strength ratings could adversely affect our results of operations by decreasing future premiums.

Reducing our concentration in spread-based business and exiting certain distribution channels may adversely affect reported results

We have been reducing our concentration in spread-based business since 2008 and discontinued offering fixed annuities effective January 1, 2014. We also exited the independent master brokerage agencies and structured settlement annuity brokers distribution channels in 2013 and sold LBL on April 1, 2014. The reduction in sales of these products has and will continue to reduce investment portfolio levels. It may also affect the settlement of contract benefits, including sales of assets with unrealized capital losses and affect insurance reserves deficiency testing.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our home office is part of the Parent Group's home office complex in Northbrook, Illinois. As of December 31, 2018, the home office complex consists of several buildings totaling 1.9 million square feet of office space on a 186-acre site. In addition, the Parent Group operates various administrative, data processing, claims handling and other support facilities around the world.

All of the facilities from which we operate are owned or leased by our direct parent, AIC. Expenses associated with facilities owned or leased by AIC are allocated to us. We believe that these facilities are suitable and adequate for our current operations.

The locations where Allstate exclusive agencies and exclusive financial specialists operate in the U.S. are normally leased by the agencies and financial specialists.

Item 3. Legal Proceedings

Information required for Item 3 is incorporated by reference to the discussion under the heading "Regulation and compliance" in Note 11 of the consolidated financial statements.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

No established public trading market exists for Allstate Life’s common stock. All of its outstanding common stock is owned by Allstate Life’s parent, AIC. All of the outstanding common stock of AIC is owned by Allstate Insurance Holdings, LLC, which is wholly owned by The Allstate Corporation.

Item 6. Selected Financial Data

5-YEAR SUMMARY OF SELECTED FINANCIAL DATA

($ in millions)	2018	2017	2016	2015	2014
Consolidated Operating Results					
Premiums	$ 704	$ 690	$ 592	$ 600	$ 589
Contract charges	695	703	717	738	847
Other revenue	38	40	45	44	37
Net investment income	1,585	1,777	1,659	1,819	2,081
Realized capital gains and losses	(175)	49	(77)	265	143
Total revenues	2,847	3,259	2,936	3,466	3,697
Net income	365	996	319	561	526
Consolidated Financial Position					
Investments	$ 32,683	$ 34,438	$ 35,067	$ 34,962	$ 37,466
Total assets	40,142	42,605	43,239	43,678	46,735
Reserve for life-contingent contract benefits and contractholder funds	28,709	30,217	30,792	31,936	33,382
Notes due to related parties	140	140	465	275	275
Shareholder’s equity	6,692	6,855	6,409	5,933	6,347

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

OVERVIEW

The following discussion highlights significant factors influencing the consolidated financial position and results of operations of Allstate Life Insurance Company (referred to in this document as "we," "our," "us," the "Company" or "ALIC"). It should be read in conjunction with the 5-year summary of selected financial data, consolidated financial statements and related notes found under Part II. Item 6. and Item 8. contained herein. We operate as a single segment entity based on the manner in which we use financial information to evaluate business performance and to determine the allocation of resources.

The most important factors we monitor to evaluate the financial condition and performance of our company include:

- For operations: benefit and investment spread, asset-liability matching, expenses, net income, and premiums and contract charges.
- For investments: exposure to market risk, asset allocation, credit quality/experience, total return, net investment income, cash flows, realized capital gains and losses, unrealized capital gains and losses, stability of long-term returns, and asset and liability duration.
- For financial condition: liquidity, financial strength ratings, capital position, and return on equity.

2018 HIGHLIGHTS

- Net income was $365 million in 2018 compared to $996 million in 2017.
- On December 22, 2017, the Tax Cuts and Jobs Act of 2017 ("Tax Legislation") became effective, permanently reducing the U.S. corporate income tax rate from 35% to 21% beginning January 1, 2018. As a result, the corporate tax rate is not comparable between years.
  - During 2017, we revalued deferred tax assets and liabilities and recorded liabilities related to the transition to the modified territorial system for international taxation, resulting in a $514 million reduction to income tax expense.
  - During 2018, the impact of the Tax Legislation was adjusted from our preliminary estimate due to, among other things, changes in interpretations and assumptions we previously made, guidance that was issued and actions we took as a result of the Tax Legislation. During 2018, we recognized a net tax benefit of $53 million, as a reduction to income tax expense related to the provisional amounts.
- Premiums and contract charges totaled $1.40 billion in 2018, an increase of 0.4% from $1.39 billion in 2017.
- Investments totaled $32.68 billion as of December 31, 2018, reflecting a decrease of $1.76 billion from $34.44 billion as of December 31, 2017. Net investment income decreased 10.8% to $1.59 billion in 2018 from $1.78 billion in 2017.
- Net realized capital losses totaled $175 million in 2018 compared to net realized capital gains of $49 million in 2017.
- Contractholder funds totaled $17.47 billion as of December 31, 2018, reflecting a decrease of $1.12 billion from $18.59 billion as of December 31, 2017. Reserve for life-contingent contract benefits totaled $11.24 billion as of December 31, 2018 compared to $11.63 billion as of December 31, 2017.

OPERATIONS

Summary analysis Summarized financial data for the years ended December 31 is presented in the following table.

($ in millions)	2018	2017	2016
Revenues			
Premiums	$ 704	$ 690	$ 592
Contract charges	695	703	717
Other revenue	38	40	45
Net investment income	1,585	1,777	1,659
Realized capital gains and losses	(175)	49	(77)
Total revenues	2,847	3,259	2,936
Costs and expenses			
Contract benefits	(1,446)	(1,430)	(1,387)
Interest credited to contractholder funds	(601)	(639)	(677)
Amortization of DAC	(146)	(152)	(134)
Operating costs and expenses	(271)	(321)	(264)
Restructuring and related charges	(2)	(2)	(1)
Interest expense	(5)	(4)	(15)
Total costs and expenses	(2,471)	(2,548)	(2,478)
Gain on disposition of operations	6	7	5
Income tax (expense) benefit	(17)	278	(144)
Net income	$ 365	$ 996	$ 319

Net income was $365 million in 2018 compared to $996 million in 2017. 2018 and 2017 results include a net tax benefit of $53 million and $514 million, respectively, related to the Tax Legislation. Net income decreased $170 million, excluding the impact of the Tax Legislation, primarily due to net realized capital losses in 2018 compared to net realized capital gains in 2017 and lower net investment income, partially offset by a lower effective tax rate from the Tax Legislation, lower operating costs and expenses and decreased interest credited to contractholder funds.

Net income was $996 million in 2017 compared to $319 million in 2016. 2017 net income included a $514 million Tax Legislation benefit. Net income increased $163 million, excluding the impact of the Tax Legislation, primarily due to net realized capital gains in 2017 compared to net realized capital losses in 2016, higher net investment income, higher premiums and lower interest credited to contractholder funds, partially offset by higher operating costs and expenses and contract benefits.

Analysis of revenues Total revenues decreased 12.6% or $412 million in 2018 compared to 2017, primarily due to net realized capital losses in 2018 compared to net realized capital gains in 2017 and lower net investment income. Total revenues increased 11.0% or $323 million in 2017 compared to 2016, primarily due to net realized capital gains in 2017 compared to net realized capital losses in 2016, higher net investment income and higher premiums.

Premiums represent revenues generated from traditional life insurance, accident and health insurance products, and immediate annuities with life contingencies that have significant mortality or morbidity risk.

Contract charges are revenues generated from interest-sensitive and variable life insurance and fixed annuities for which deposits are classified as contractholder funds or separate account liabilities. Contract charges are assessed against the contractholder account values for maintenance, administration, cost of insurance and surrender prior to contractually specified dates.

The following table summarizes premiums and contract charges by product for the years ended December 31.

($ in millions)	2018	2017	2016
Underwritten products			
Traditional life insurance premiums	$ 582	$ 579	$ 502
Accident and health insurance premiums	122	111	90
Interest-sensitive life insurance contract charges	680	689	703
Subtotal	1,384	1,379	1,295
Annuities			
Fixed annuity contract charges	15	14	14
Premiums and contract charges (1)	$ 1,399	$ 1,393	$ 1,309

(1) Contract charges related to the cost of insurance totaled $495 million, $493 million and $495 million in 2018, 2017, and 2016, respectively.

Premiums and contract charges increased 0.4% or $6 million in 2018 compared to 2017, primarily due to growth in voluntary accident and health insurance and higher premiums on traditional life insurance, partially offset by lower contract charges on interest-sensitive life insurance.

Premiums and contract charges increased 6.4% or $84 million in 2017 compared to 2016, primarily due to higher traditional life insurance premiums related to the reinsurance agreement with Allstate Assurance Company ("AAC") to assume certain term life policies effective January 1, 2017 and growth in voluntary accident and health insurance.

Analysis of costs and expenses Total costs and expenses decreased 3.0% or $77 million in 2018 compared to 2017, primarily due to lower operating costs and expenses and lower interest credited to contractholder funds, partially offset by higher contract benefits. Total costs and expenses increased 2.8% or $70 million in 2017 compared to 2016, primarily due to higher operating costs and expenses and contract benefits, partially offset by lower interest credited to contractholder funds.

Contract benefits increased 1.1% or $16 million in 2018 compared to 2017, primarily due to higher claim experience on both traditional and interest-sensitive life insurance, partially offset by immediate annuity mortality experience that was favorable in comparison to the prior year. Our 2018 annual review of assumptions resulted in a $3 million increase in reserves, primarily for guaranteed withdrawal benefits on equity-indexed annuities due to higher projected guaranteed benefits and secondary guarantees on interest-sensitive life insurance due to higher than anticipated policyholder persistency.

Contract benefits increased 3.1% or $43 million in 2017 compared to 2016, primarily due to the reinsurance agreement with AAC effective January 1, 2017, unfavorable mortality experience on interest-sensitive life insurance, and growth in voluntary accident and health insurance. Our 2017 annual review of assumptions resulted in a $13 million increase in reserves, primarily for secondary guarantees on interest-sensitive life insurance due to increased projected exposure to benefits paid under secondary guarantees resulting from continued low interest rates.

As of December 31, 2018, our premium deficiency and profits followed by losses evaluations concluded that no adjustments were required to be recognized. For further detail on these evaluations, see Reserve for life-contingent contract benefits estimation in the Application of Critical Accounting Estimates section.

We analyze our mortality and morbidity results using the difference between premiums and contract charges earned for the cost of insurance and contract benefits excluding the portion related to the implied interest on immediate annuities with life contingencies ("benefit spread"). This implied interest totaled $492 million, $501 million and $510 million in 2018, 2017 and 2016, respectively.

The benefit spread by product group for the years ended December 31 is disclosed in the following table.

($ in millions)	2018	2017	2016
Life insurance	$ 254	$ 282	$ 256
Accident and health insurance	59	56	40
Annuities	(68)	(84)	(86)
Total benefit spread	$ 245	$ 254	$ 210

Benefit spread decreased 3.5% or $9 million in 2018 compared to 2017, primarily due to higher claim experience on traditional and interest-sensitive life insurance, partially offset by immediate annuity mortality experience that was favorable in comparison to the prior year.

Benefit spread increased 21.0% or $44 million in 2017 compared to 2016, primarily due to the reinsurance agreement with AAC effective January 1, 2017 and growth in voluntary accident and health insurance, partially offset by unfavorable mortality experience on interest-sensitive life insurance.

Interest credited to contractholder funds decreased 5.9% or $38 million in 2018 compared to 2017 and 5.6% or $38 million in 2017 compared to 2016. The decreases in both periods were primarily due to lower average contractholder funds. Valuation changes on derivatives embedded in equity-indexed annuity contracts that are not hedged decreased interest credited to contractholder funds by $3 million in 2018 compared to increases of $1 million and $3 million in 2017 and 2016, respectively.

In order to analyze the impact of net investment income and interest credited to contractholders on net income, we monitor the difference between net investment income and the sum of interest credited to contractholder funds and the implied interest on immediate annuities with life contingencies, which is included as a component of contract benefits on the Consolidated Statements of Operations and Comprehensive Income ("investment spread").

The investment spread is shown in the following table.

($ in millions)	2018	2017	2016
Investment spread before valuation changes on embedded derivatives not hedged	$ 489	$ 638	$ 475
Valuation changes on derivatives embedded in equity-indexed annuity contracts that are not hedged	3	(1)	(3)
Total investment spread	$ 492	$ 637	$ 472

Investment spread before valuation changes on embedded derivatives not hedged decreased 23.4% or $149 million in 2018 compared to 2017, primarily due to lower investment income, mainly from limited partnership interests, partially offset by lower credited interest. Investment spread before valuation changes on embedded derivatives not hedged increased 34.3% or $163 million in 2017 compared to 2016, primarily due to higher net investment income related to strong performance-based results and lower credited interest.

To further analyze investment spreads, the following table summarizes the weighted average investment yield on assets supporting product liabilities and capital, interest crediting rates and investment spreads. Investment spreads may vary significantly between periods due to the variability in investment income, particularly for immediate fixed annuities where the investment portfolio includes performance-based investments.

	Weighted average investment yield			Weighted average interest crediting rate			Weighted average investment spreads		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Interest-sensitive life insurance	5.1%	5.3%	5.1%	3.7%	3.7%	3.9%	1.4%	1.6%	1.2%
Deferred fixed annuities and institutional products	4.1	4.3	4.1	2.8	2.8	2.8	1.3	1.5	1.3
Immediate fixed annuities with and without life contingencies	6.4	8.0	6.5	6.0	6.0	5.9	0.4	2.0	0.6
Investments supporting capital, traditional life and other products	3.6	3.6	3.8	n/a	n/a	n/a	n/a	n/a	n/a

The following table summarizes the weighted average guaranteed crediting rates and weighted average current crediting rates as of December 31, 2018 for certain fixed annuities and interest-sensitive life contracts where management has the ability to change the crediting rate, subject to contractual minimums. Other products, including equity-indexed, variable and immediate annuities, and equity-indexed and variable life totaling $5.15 billion of contractholder funds, have been excluded from the analysis because management does not have the ability to change the crediting rate or the minimum crediting rate is not considered meaningful in this context.

($ in millions)	Weighted average guaranteed crediting rates	Weighted average current crediting rates	Contractholder funds
Annuities with annual crediting rate resets	3.14%	3.14%	$ 4,555
Annuities with multi-year rate guarantees [1]:			
Resettable in next 12 months	1.27	3.23	198
Resettable after 12 months	2.14	2.67	660
Interest-sensitive life insurance	3.91	3.91	6,910

[1] These contracts include interest rate guarantee periods which are typically 5, 6 or 10 years.

Amortization of DAC The components of amortization of DAC for the years ended December 31 are summarized in the following table.

($ in millions)	2018	2017	2016
Amortization of DAC before amortization relating to realized capital gains and losses, valuation changes on embedded derivatives not hedged and changes in assumptions	$ 134	$ 151	$ 134
Amortization relating to realized capital gains and losses [(1)] and valuation changes on embedded derivatives not hedged	10	15	6
Amortization acceleration (deceleration) for changes in assumptions ("DAC unlocking")	2	(14)	(6)
Total amortization of DAC	$ 146	$ 152	$ 134

(1) The impact of realized capital gains and losses on amortization of DAC is dependent upon the relationship between the assets that give rise to the gain or loss and the product liability supported by the assets. Fluctuations result from changes in the impact of realized capital gains and losses on actual and expected gross profits.

Amortization of DAC decreased 3.9% or $6 million in 2018 compared to 2017, primarily due to lower gross profits on interest-sensitive life insurance, partially offset by amortization acceleration in 2018 compared to amortization deceleration in 2017 for changes in assumptions.

Amortization of DAC increased 13.4% or $18 million in 2017 compared to 2016, primarily due to higher gross profits and net realized capital gains on interest-sensitive life insurance, partially offset by higher amortization deceleration for changes in assumptions.

Our annual comprehensive review of assumptions underlying estimated future gross profits for our interest-sensitive life, fixed annuities and other investment contracts covers assumptions for mortality, persistency, expenses, investment returns, including capital gains and losses, interest crediting rates to policyholders, and the effect of any hedges in all product lines. In 2018, the review resulted in an acceleration of DAC amortization (decrease to income) of $2 million related to interest-sensitive life insurance. The acceleration primarily related to the investment margin component of estimated gross profits and was due to lower projected investment returns. This was partially offset by DAC amortization deceleration (increase to income) for changes in the benefit margin due to a decrease in projected mortality.

In 2017, the review resulted in a deceleration of DAC amortization (increase to income) of $14 million related to interest-sensitive life insurance. The deceleration primarily related to the benefit margin component of estimated gross profits and was due to a decrease in projected mortality. This was partially offset by DAC amortization acceleration (decrease to income) for changes in the investment margin due to continued low interest rates and lower projected investment returns.

In 2016, the review resulted in a deceleration of DAC amortization of $6 million. DAC amortization deceleration for changes in the investment margin component of estimated gross profits related to interest-sensitive life insurance and was due to increased projected investment margins from a favorable asset portfolio mix. DAC amortization deceleration for changes in the expense margin component of estimated gross profits related primarily to variable life insurance and was due to a decrease in projected expenses.

For additional detail related to the DAC annual review, see the Application of Critical Accounting Estimates section of this document.

The changes in DAC for the years ended December 31 are detailed in the following table.

($ in millions)	Traditional life and accident and health		Interest-sensitive life insurance		Fixed annuities		Total	
	2018	2017	2018	2017	2018	2017	2018	2017
Beginning balance	$ 516	$ 439	$ 606	$ 708	$ 34	$ 40	$ 1,156	$ 1,187
Acquisition costs deferred	46	84	32	38	—	—	78	122
Amortization of DAC before amortization relating to realized capital gains and losses, valuation changes on embedded derivatives not hedged and changes in assumptions [1]	(55)	(52)	(72)	(93)	(7)	(6)	(134)	(151)
Amortization relating to realized capital gains and losses and valuation changes on embedded derivatives not hedged [1]	—	—	(10)	(15)	—	—	(10)	(15)
Amortization (acceleration) deceleration for changes in assumptions ("DAC unlocking") [1]	—	—	(2)	14	—	—	(2)	14
Effect of unrealized capital gains and losses [2]	—	—	144	(46)	—	—	144	(46)
Reinsurance assumed [3]	—	45	—	—	—	—	—	45
Ending balance	$ 507	$ 516	$ 698	$ 606	$ 27	$ 34	$ 1,232	$ 1,156

(1) Included as a component of amortization of DAC on the Consolidated Statements of Operations and Comprehensive Income.

(2) Represents the change in the DAC adjustment for unrealized capital gains and losses. The DAC adjustment represents the amount by which the amortization of DAC would increase or decrease if the unrealized gains and losses in the respective product portfolios were realized.

(3) 2017 includes a reinsurance agreement with AAC.

Operating costs and expenses decreased 15.6% or $50 million in 2018 compared to 2017, primarily due to lower non-deferred acquisition-related costs as we stopped assuming new term life business from AAC effective January 1, 2018. Operating costs and expenses increased 21.6% or $57 million in 2017 compared to 2016, primarily due to the reinsurance agreement with AAC effective January 1, 2017 and higher net distribution expenses reflecting increased regulatory compliance costs, partially offset by lower non-deferrable commissions.

Analysis of reserves and contractholder funds

The following table summarizes our product liabilities as of December 31.

($ in millions)	2018	2017	2016
Traditional life insurance	$ 2,517	$ 2,458	$ 2,375
Accident and health insurance	203	238	232
Immediate fixed annuities with life contingencies			
Sub-standard structured settlements and group pension terminations [1]	4,990	5,304	5,029
Standard structured settlements and SPIA [2]	3,420	3,540	3,586
Other	109	85	100
Reserve for life-contingent contract benefits	$ 11,239	$ 11,625	$ 11,322
Interest-sensitive life insurance	$ 7,369	$ 7,387	$ 7,312
Deferred fixed annuities	7,123	8,093	8,884
Immediate fixed annuities without life contingencies	2,522	2,697	3,009
Other	456	415	265
Contractholder funds	$ 17,470	$ 18,592	$ 19,470

(1) Comprises structured settlement annuities for annuitants with severe injuries or other health impairments which increased their expected mortality rate at the time the annuity was issued ("sub-standard structured settlements") and group annuity contracts issued to sponsors of terminated pension plans ("ABO"). Sub-standard structured settlements comprise 5% of our immediate annuity policies in force and 53% of the immediate annuity reserve for life-contingent contract benefits.

(2) Comprises structured settlement annuities for annuitants with standard life expectancy ("standard structured settlements") and single premium immediate annuities ("SPIA") with life contingencies.

Contractholder funds represent interest-bearing liabilities arising from the sale of products such as interest-sensitive life insurance, fixed annuities and funding agreements. The balance of contractholder funds is equal to the cumulative deposits received and interest credited to the contractholder less cumulative contract benefits, surrenders, withdrawals, maturities and contract charges for mortality or administrative expenses.

The following table shows the changes in contractholder funds for the years ended December 31.

($ in millions)	2018	2017	2016
Contractholder funds, beginning balance	$ 18,592	$ 19,470	$ 20,542
Deposits			
Interest-sensitive life insurance	848	881	927
Fixed annuities	15	28	42
Total deposits	863	909	969
Interest credited	597	635	672
Benefits, withdrawals, maturities and other adjustments			
Benefits	(810)	(871)	(947)
Surrenders and partial withdrawals	(1,095)	(960)	(1,014)
Maturities of and interest payments on institutional products	—	—	(86)
Contract charges	(645)	(655)	(665)
Net transfers from separate accounts	7	4	5
Other adjustments [1]	(39)	60	(6)
Total benefits, withdrawals, maturities and other adjustments	(2,582)	(2,422)	(2,713)
Contractholder funds, ending balance	$ 17,470	$ 18,592	$ 19,470

[1] The table above illustrates the changes in contractholder funds, which are presented gross of reinsurance recoverables on the Consolidated Statements of Financial Position. The table above is intended to supplement our discussion and analysis of revenues, which are presented net of reinsurance on the Consolidated Statements of Operations and Comprehensive Income. As a result, the net change in contractholder funds associated with products reinsured to third parties is reflected as a component of the other adjustments line.

Contractholder funds decreased 6.0% and 4.5% in 2018 and 2017, respectively, primarily due to the continued runoff of our deferred fixed annuity business. We discontinued the sale of annuities over an eight year period from 2006 to 2014, but still accept additional deposits on existing contracts.

Surrenders and partial withdrawals on deferred fixed annuities and interest-sensitive life insurance products increased 14.1% to $1.10 billion in 2018 from $960 million in 2017. 2018 had elevated surrenders on fixed annuities resulting from an increased number of contracts reaching the 30-45 day period (typically at their 5, 7 or 10 year anniversary) during which there is no surrender charge. Surrenders and partial withdrawals decreased 5.3% to $960 million in 2017 from $1.01 billion in 2016, primarily due to decreases in deferred fixed annuities. The surrender and partial withdrawal rate on deferred fixed annuities and interest-sensitive life insurance products, based on the beginning of year contractholder funds, was 7.4% in 2018 compared to 6.2% in both 2017 and 2016.

Maturities of and interest payments on institutional products included an $85 million maturity in 2016. There were no institutional products outstanding as of December 31, 2018, 2017 or 2016.

Reinsurance Ceded

In the normal course of business, we seek to limit exposure to losses by purchasing reinsurance. In addition, we have used reinsurance to effect the disposition of certain blocks of business. We retain primary liability as a direct insurer for all risks ceded to reinsurers. As of December 31, 2018 and 2017, 20% and 21%, respectively, of our face amount of life insurance in force was reinsured. Additionally, we ceded substantially all of the risk associated with our variable annuity business to Prudential Insurance Company of America.

Our reinsurance recoverables, summarized by reinsurer as of December 31, are shown in the following table.

($ in millions)	S&P financial strength rating [1]	Reinsurance recoverable on paid and unpaid benefits	
		2018	2017
Prudential Insurance Company of America	AA-	$ 1,364	$ 1,353
Allstate Assurance Company [2]	N/A	420	437
RGA Reinsurance Company	AA-	208	229
Swiss Re Life and Health America, Inc.	AA-	155	159
Munich American Reassurance	AA-	87	91
Transamerica Life Group	AA-	80	81
Scottish Re (U.S.), Inc. [3]	N/A	66	87
John Hancock Life & Health Insurance Company	AA-	53	54
Triton Insurance Company [4]	N/A	45	47
American Health & Life Insurance Company [4]	N/A	34	37
Lincoln National Life Insurance	AA-	25	28
Security Life of Denver	A	24	27
SCOR Global Life	AA-	14	17
American United Life Insurance Company	AA-	13	14
Other [5]		17	19
Total		$ 2,605	$ 2,680

(1) N/A reflects no S&P Global Ratings ("S&P") rating available.

(2) Affiliate company. A.M. Best rating is A+.

(3) Scottish Re (U.S.), Inc. was last rated by S&P in 2009 and A.M. Best removed their rating in 2011. Scottish Re (U.S.), Inc. remains current on claims payments to the Company.

(4) A.M. Best rating is B+.

(5) As of December 31, 2018 and 2017, the other category includes $9 million and $19 million, respectively, of recoverables due from reinsurers rated A- or better by S&P.

We continuously monitor the creditworthiness of reinsurers in order to determine our risk of recoverability on an individual and aggregate basis, and a provision for uncollectible reinsurance is recorded if needed. No amounts have been deemed unrecoverable in the three-years ended December 31, 2018.

INVESTMENTS

Overview and strategy The return on our investment portfolio is an important component of our ability to offer good value to customers and earn an acceptable return on capital. We identify a strategic asset allocation which considers both the nature of the liabilities and the risk and return characteristics of the various asset classes in which we invest. This allocation is informed by our long-term and market expectations, as well as other considerations such as risk appetite, portfolio diversification, duration, desired liquidity and capital. Within appropriate ranges relative to strategic allocations, tactical allocations are made in consideration of prevailing and potential future market conditions. We manage risks that involve uncertainty related to interest rates, credit spreads, equity returns and currency exchange rates.

Our portfolio is comprised of assets chosen to generate returns to support corresponding liabilities within an asset-liability framework that targets an appropriate return on capital. For shorter-term annuity liability cash flows and life insurance liabilities, we invest primarily in fixed income securities and commercial mortgage loans with maturity profiles aligned with liability cash flow requirements. For longer-term immediate annuity liability cash flows, we invest primarily in performance-based investments, such as limited partnerships, and public equity securities.

We utilize two primary strategies to manage risks and returns and to position our portfolio to take advantage of market opportunities while attempting to mitigate adverse effects. As strategies and market conditions evolve, the asset allocation may change or assets may be moved between strategies.

Market-based strategies include investments primarily in public fixed income and equity securities. *Market-based core* seeks to deliver predictable earnings aligned to business needs and returns consistent with the markets in which we invest. Private fixed income assets, such as commercial mortgages, bank loans and privately placed debt that provide liquidity premiums are also included in this category. *Market-based active* seeks to outperform within the public markets through tactical positioning and by taking advantage of short-term opportunities. This category may generate results that meaningfully deviate from those achieved by market indices, both favorably and unfavorably.

The *Performance-based* strategy seeks to deliver attractive risk-adjusted returns and supplement market risk with idiosyncratic risk. Returns are impacted by a variety of factors including general macroeconomic and public market conditions as public benchmarks are often used in the valuation of underlying investments. Variability in earnings will also result from the performance of the underlying assets or business and the timing of sales of those investments. Earnings from the sales of investments may be recorded as net investment income or realized capital gains and losses. The portfolio, which primarily includes private equity and real estate with a majority being limited partnerships, is diversified across a number of characteristics, including managers or partners, vintage years, strategies, geographies (including international) and industry sectors or property types. These investments are generally illiquid in nature, often require specialized expertise, typically involve a third party manager, and often enhance returns and income through transformation at the company or property level. A portion of these investments seek returns in markets or asset classes that are dislocated or special situations, primarily in private markets.

Investments outlook

In December 2018, the Federal Open Market Committee ("FOMC") tightened monetary policy by setting the new target range for the federal funds rate at 2-1/4 percent to 2-1/2 percent and maintained their inflation target of 2 percent. We plan to focus on the following priorities:

- Enhance investment portfolio returns through use of a dynamic capital allocation framework and focus on tax efficiency.
- Leverage our broad capabilities to shift the portfolio mix to earn higher risk-adjusted returns on capital.
- Invest for the specific needs and characteristics of our business, including our liability profile.

Invested assets and market-based income are expected to decline with reductions in contractholder funds and income related to performance-based investments will result in variability of our earnings.

Adopted Recognition and Measurement of Financial Assets and Financial Liabilities

Beginning January 1, 2018, equity securities are reported at fair value with changes in fair value recognized in realized capital gains and losses.

Limited partnerships previously reported using the cost method are now reported at fair value with changes in fair value recognized in net investment income.

See Note 2 of the consolidated financial statements.

Portfolio composition The composition of the investment portfolio is presented in the following table.

($ in millions)	December 31, 2018	Percent to total
Fixed income securities [(1)]	$ 21,400	65.5%
Mortgage loans	3,995	12.2
Equity securities [(2)]	1,325	4.0
Limited partnership interests	3,292	10.1
Short-term investments [(3)]	810	2.5
Policy loans	561	1.7
Other	1,300	4.0
Total	$ 32,683	100.0%

[(1)] Fixed income securities are carried at fair value. Amortized cost basis for these securities was $21.06 billion.

[(2)] Equity securities are carried at fair value. The fair value of equity securities held as of December 31, 2018 was $128 million in excess of cost. These net gains were primarily concentrated in the consumer goods, technology and capital goods sectors. Beginning January 1, 2018 the periodic changes in fair value are reflected in realized capital gains and losses.

[(3)] Short-term investments are carried at fair value.

Investments totaled $32.68 billion as of December 31, 2018, decreasing from $34.44 billion as of December 31, 2017, primarily due to net reductions in contractholder funds, lower fixed income valuations and dividends paid to Allstate Insurance Company ("AIC"), partially offset by positive operating cash flows.

Portfolio composition by investment strategy The following table presents the investment portfolio by strategy as of December 31, 2018.

($ in millions)	Market-based core	Market-based active	Performance-based	Total
Fixed income securities	$ 20,335	$ 1,057	$ 8	$ 21,400
Mortgage loans	3,995	—	—	3,995
Equity securities	1,156	73	96	1,325
Limited partnership interests	119	—	3,173	3,292
Short-term investments	697	113	—	810
Policy loans	561	—	—	561
Other	1,053	2	245	1,300
Total	$ 27,916	$ 1,245	$ 3,522	$ 32,683
Percent to total	85.4%	3.8%	10.8%	100.0%
Unrealized net capital gains (losses)				
Fixed income securities	$ 360	$ (17)	$ —	$ 343
Total	$ 360	$ (17)	$ —	$ 343

During 2018, strategic actions focused on optimizing portfolio yield, return and risk in the rising interest rate environment. We maintained the maturity profile of fixed income securities in our portfolio. Invested assets and market-based income declined with reductions in contractholder funds. Performance-based investments and equity securities will continue to be allocated primarily to the longer-term immediate annuity liabilities to reduce the risk that investment returns are below levels required to meet their funding needs while shorter-term annuity liabilities will be invested in market-based investments.

Fixed income securities by type are listed in the following table.

($ in millions)	Fair value as of December 31, 2018	Fair value as of December 31, 2017
U.S. government and agencies	$ 773	$ 804
Municipal	2,195	2,273
Corporate	17,573	19,136
Foreign government	179	299
Asset-backed securities ("ABS")	429	385
Residential mortgage-backed securities ("RMBS")	197	253
Commercial mortgage-backed securities ("CMBS")	40	97
Redeemable preferred stock	14	14
Total fixed income securities	$ 21,400	$ 23,261

Fixed income securities are rated by third party credit rating agencies and/or are internally rated. As of December 31, 2018, 88.0% of the fixed income securities portfolio was rated investment grade, which is defined as a security having a rating of Aaa, Aa, A or Baa from Moody's, a rating of AAA, AA, A or BBB from S&P, a comparable rating from another nationally recognized rating agency, or a comparable internal rating if an externally provided rating is not available. Credit ratings below these designations are considered low credit quality or below investment grade, which includes high yield bonds. Market prices for certain securities may have credit spreads which imply higher or lower credit quality than the current third party rating. Our initial investment decisions and ongoing monitoring procedures for fixed income securities are based on a thorough due diligence process which includes, but is not limited to, an assessment of the credit quality, sector, structure, and liquidity risks of each issue.

The following table summarizes the fair value and unrealized net capital gains (losses) for fixed income securities by credit quality as of December 31, 2018.

($ in millions)	**Investment grade**		**Below investment grade**		**Total**	
	Fair value	**Unrealized gain/(loss)**	**Fair value**	**Unrealized gain/(loss)**	**Fair value**	**Unrealized gain/(loss)**
U.S. government and agencies	$ 773	$ 33	$ —	$ —	$ 773	$ 33
Municipal	2,159	199	36	(1)	2,195	198
Corporate						
Public	10,531	85	1,393	(60)	11,924	25
Privately placed	4,722	63	927	(36)	5,649	27
Foreign government	170	9	9	—	179	9
ABS						
Collateralized debt obligations ("CDO")	23	(1)	9	—	32	(1)
Consumer and other asset-backed securities ("Consumer and other ABS")	397	1	—	—	397	1
RMBS						
U.S. government sponsored entities ("U.S. Agency")	25	1	—	—	25	1
Non-agency	17	1	155	41	172	42
CMBS	2	—	38	7	40	7
Redeemable preferred stock	14	1	—	—	14	1
Total fixed income securities	$ 18,833	$ 392	$ 2,567	$ (49)	$ 21,400	$ 343

Municipal bonds totaled $2.20 billion as of December 31, 2018 with 98.4% rated investment grade and an unrealized net capital gain of $198 million. The municipal bond portfolio includes general obligations of state and local issuers and revenue bonds (including pre-refunded bonds, which are bonds for which an irrevocable trust has been established to fund the remaining payments of principal and interest).

Our practice for acquiring and monitoring municipal bonds is predominantly based on the underlying credit quality of the primary obligor. We currently rely on the primary obligor to pay all contractual cash flows and are not relying on bond insurers for payments. As a result of downgrades in the insurers' credit ratings, the ratings of the insured municipal bonds generally reflect the underlying ratings of the primary obligor.

Corporate bonds, including publicly traded and privately placed, totaled $17.57 billion as of December 31, 2018, with 86.8% rated investment grade and an unrealized net capital gain of $52 million. Privately placed securities primarily consist of corporate issued senior debt securities that are directly negotiated with the borrower or are in unregistered form.

Our $5.65 billion portfolio of privately placed securities is diversified by issuer, industry sector and country. The portfolio is made up of 405 issuers. Privately placed corporate obligations may contain structural security features such as financial covenants and call protections that provide investors greater protection against credit deterioration, reinvestment risk or fluctuations in interest rates than those typically found in publicly registered debt securities. Additionally, investments in these securities are made after due diligence of the issuer, typically including discussions with senior management and on-site visits to company facilities. Ongoing monitoring includes direct periodic dialog with senior management of the issuer and continuous monitoring of operating performance and financial position. Every issue not rated by an independent rating agency is internally rated with a formal rating affirmation at least once a year.

Our corporate bonds portfolio includes $2.32 billion of below investment grade bonds, $927 million of which are privately placed. These securities are diversified by issuer and industry sector. The below investment grade corporate bonds portfolio is made up of 273 issuers. We employ fundamental analyses of issuers and sectors along with macro and asset class views to identify investment opportunities. This results in a portfolio with broad exposure to the high yield market with an emphasis on idiosyncratic positions reflective of our views of market conditions and opportunities.

Foreign government securities totaled $179 million as of December 31, 2018, with 95.0% rated investment grade and an unrealized net capital gain of $9 million. Of these securities, 73.8% are backed by the U.S. government, 18.4% are in Canadian governmental and provincial securities, and the remaining 7.8% are highly diversified in other foreign governments.

ABS, RMBS and CMBS are structured securities that are primarily collateralized by consumer or corporate borrowings and residential and commercial real estate loans. The cash flows from the underlying collateral paid to the securitization trust are generally applied in a pre-determined order and are designed so that each security issued by the trust, typically referred to as a "class", qualifies for a specific original rating. For example, the "senior" portion or "top" of the capital structure, or rating class, which would originally qualify for a rating of Aaa typically has priority in receiving principal repayments on the underlying collateral and retains this priority until the class is paid in full. In a sequential structure, underlying collateral principal repayments are directed to the most senior rated Aaa class in the structure until paid in full, after which principal repayments are directed to the next most senior Aaa class in the structure until it is paid in full. Senior Aaa classes generally share any losses from the underlying collateral on a pro-rata basis after losses are absorbed by classes with lower original ratings. The payment priority and class subordination included in these securities serves as credit enhancement for holders of the senior or top portions of the structures. These securities continue to retain the payment priority features that existed at the origination of the securitization trust. Other forms of credit enhancement may include structural features embedded in the securitization trust, such as overcollateralization, excess spread and bond insurance. The underlying collateral may contain fixed interest rates, variable interest rates (such as adjustable rate mortgages), or both fixed and variable rate features.

ABS, including CDO and Consumer and other ABS, totaled $429 million as of December 31, 2018, with 97.9% rated investment grade and no unrealized net capital gains or losses. Credit risk is managed by monitoring the performance of the underlying collateral. Many of the securities in the ABS portfolio have credit enhancement with features such as overcollateralization, subordinated structures, reserve funds, guarantees and/or insurance.

CDO totaled $32 million as of December 31, 2018, with 71.9% rated investment grade and an unrealized net capital loss of $1 million. CDO consist of obligations collateralized by cash flow CDO, which are structures collateralized primarily by below investment grade senior secured corporate loans. Consumer and other ABS totaled $397 million as of December 31, 2018, with 100.0% rated investment grade.

RMBS totaled $197 million as of December 31, 2018, with 21.3% rated investment grade and an unrealized net capital gain of $43 million. The RMBS portfolio is subject to interest rate risk, but unlike other fixed income securities, is additionally subject to prepayment risk from the underlying residential mortgage loans. RMBS consists of a U.S. Agency portfolio having collateral issued or guaranteed by U.S. government agencies and a non-agency portfolio consisting of securities collateralized by Prime, Alt-A and Subprime loans. The non-agency portfolio totaled $172 million as of December 31, 2018, with 9.9% rated investment grade and an unrealized net capital gain of $42 million.

CMBS totaled $40 million as of December 31, 2018, with 5.0% rated investment grade and an unrealized net capital gain of $7 million. All of the CMBS investments are traditional conduit transactions collateralized by commercial mortgage loans, broadly diversified across property types and geographical area.

Mortgage loans totaled $4.00 billion as of December 31, 2018 and primarily comprise loans secured by first mortgages on developed commercial real estate. Key considerations used to manage our exposure include property type and geographic diversification. For further detail on our mortgage loan portfolio, see Note 5 of the consolidated financial statements.

Equity securities primarily include common stocks, exchange traded and mutual funds, non-redeemable preferred stocks and real estate investment trust equity investments. Certain exchange traded and mutual funds have fixed income securities as their underlying investments. The equity securities portfolio was $1.33 billion as of December 31, 2018.

Limited partnership interests include interests in private equity funds, real estate funds and other funds. The following table presents carrying value and other information about our limited partnership interests as of December 31, 2018.

($ in millions)	Limited partnership interests [1][2]	Number of managers	Number of individual investments	Largest exposure to single investment
Private equity	$ 2,742	144	280	$ 149
Real estate	431	25	49	54
Other	119	4	4	53
Total	$ 3,292	173	333	

(1) Due to the adoption of the recognition and measurement accounting standard, limited partnerships previously reported using the cost method are now reported at fair value. See Note 2 of the consolidated financial statements.

(2) We have commitments to invest in additional limited partnership interests totaling $1.20 billion.

Short-term investments totaled $810 million as of December 31, 2018, which includes securities lending collateral of $404 million.

Policy loans totaled $561 million as of December 31, 2018. Policy loans are carried at unpaid principal balances.

Other investments primarily comprise $620 million of agent loans (loans issued to exclusive Allstate agents), $422 million of bank loans, $228 million of real estate and $23 million of derivatives as of December 31, 2018. For further detail on our use of derivatives, see Note 7 of the consolidated financial statements.

Unrealized net capital gains totaled $343 million as of December 31, 2018 compared to $1.57 billion as of December 31, 2017.

The following table presents unrealized net capital gains (losses) as of December 31.

($ in millions)	**2018**	**2017**
U.S. government and agencies	$ 33	$ 36
Municipal	198	272
Corporate	52	874
Foreign government	9	20
ABS	—	2
RMBS	43	48
CMBS	7	4
Redeemable preferred stock	1	1
Fixed income securities	343	1,257
Equity securities [(1)]	—	308
Derivatives	—	2
Equity method of accounting ("EMA") limited partnerships	—	1
Unrealized net capital gains, pre-tax	$ 343	$ 1,568

[(1)] Due to the adoption of the recognition and measurement accounting standard, equity securities are reported at fair value with changes in fair value recognized in realized capital gains and losses and are no longer included in the table above. Upon adoption of the new guidance on January 1, 2018, $308 million of pre-tax unrealized net capital gains for equity securities were reclassified from accumulated other comprehensive income ("AOCI") to retained income. See Note 2 of the consolidated financial statements.

We have a comprehensive portfolio monitoring process to identify and evaluate each fixed income security that may be other-than-temporarily impaired. The process includes a quarterly review of all securities to identify instances where the fair value of a security compared to its amortized cost is below established thresholds. The process also includes the monitoring of other impairment indicators such as ratings, ratings downgrades and payment defaults. The securities identified, in addition to other securities for which we may have a concern, are evaluated for potential other-than-temporary impairment using all reasonably available information relevant to the collectability or recovery of the security. Inherent in our evaluation of other-than-temporary impairment for these fixed income securities are assumptions and estimates about the financial condition and future earnings potential of the issue or issuer. Some of the factors that may be considered in evaluating whether a decline in fair value is other than temporary are: 1) the financial condition, near-term and long-term prospects of the issue or issuer, including relevant industry specific market conditions and trends, geographic location and implications of rating agency actions and offering prices; 2) the specific reasons that a security is in an unrealized loss position, including overall market conditions which could affect liquidity; and 3) the length of time and extent to which the fair value has been less than amortized cost or cost. All investments in an unrealized loss position as of December 31, 2018 were included in our portfolio monitoring process for determining whether declines in value were other than temporary.

The unrealized net capital gain for the fixed income portfolio totaled $343 million, comprised of $732 million of gross unrealized gains and $389 million of gross unrealized losses as of December 31, 2018. This is compared to an unrealized net capital gain for the fixed income portfolio totaling $1.26 billion, comprised of $1.36 billion of gross unrealized gains and $98 million of gross unrealized losses as of December 31, 2017. Fixed income valuations decreased primarily due to an increase in risk-free interest rates and wider credit spreads.

Gross unrealized gains (losses) on fixed income securities by type and sector as of December 31, 2018 are provided in the following table.

($ in millions)	Amortized cost	Gross unrealized		Fair value
		Gains	Losses	
Corporate:				
Consumer goods (cyclical and non-cyclical)	$ 4,888	$ 66	$ (123)	$ 4,831
Capital goods	2,250	30	(58)	2,222
Utilities	3,302	196	(55)	3,443
Communications	1,239	16	(27)	1,228
Banking	844	5	(25)	824
Energy	1,150	34	(23)	1,161
Technology	963	6	(21)	948
Basic industry	832	21	(19)	834
Transportation	938	35	(12)	961
Financial services	993	22	(16)	999
Other	122	2	(2)	122
Total corporate fixed income portfolio	17,521	433	(381)	17,573
U.S. government and agencies	740	33	—	773
Municipal	1,997	202	(4)	2,195
Foreign government	170	9	—	179
ABS	429	3	(3)	429
RMBS	154	44	(1)	197
CMBS	33	7	—	40
Redeemable preferred stock	13	1	—	14
Total fixed income securities	$ 21,057	$ 732	$ (389)	$ 21,400

The consumer goods, utilities and capital goods sectors comprise 28%, 20% and 13%, respectively, of the carrying value of our corporate fixed income securities portfolio as of December 31, 2018. The consumer goods, capital goods and utilities sectors had the highest concentration of gross unrealized losses in our corporate fixed income securities portfolio as of December 31, 2018. In general, the gross unrealized losses are related to an increase in market yields, which may include increased risk-free interest rates and/or wider credit spreads since the time of initial purchase. Similarly, gross unrealized gains reflect a decrease in market yields since the time of initial purchase.

As of December 31, 2018, we have not made the decision to sell and it is not more likely than not we will be required to sell fixed income securities with unrealized losses before recovery of the amortized cost basis.

Net investment income The following table presents net investment income for the years ended December 31.

($ in millions)	2018	2017	2016
Fixed income securities	$ 991	$ 1,058	$ 1,078
Mortgage loans	188	182	193
Equity securities	39	48	40
Limited partnership interests [(1)]	327	457	292
Short-term investments	21	9	5
Policy loans	31	31	32
Other	91	79	90
Investment income, before expense	1,688	1,864	1,730
Investment expense [(2)(3)]	(103)	(87)	(71)
Net investment income	$ 1,585	$ 1,777	$ 1,659
Market-based core	$ 1,298	$ 1,347	$ 1,387
Market-based active	41	39	34
Performance-based	349	478	309
Investment income, before expense	$ 1,688	$ 1,864	$ 1,730

(1) Due to the adoption of the recognition and measurement accounting standard on January 1, 2018, limited partnerships previously reported using the cost method are now reported at fair value with changes in fair value recognized in net investment income.

(2) Investment expense includes $23 million of investee level expenses in 2018 and $16 million in both 2017 and 2016. Investee level expenses include depreciation and asset level operating expenses on directly held real estate.

(3) Investment expense includes $10 million, $4 million and $1 million related to the portion of reinvestment income on securities lending collateral paid to the counterparties in 2018, 2017 and 2016, respectively.

Net investment income decreased 10.8% or $192 million in 2018 compared to 2017, primarily due to lower performance-based investment results, mainly from limited partnerships, and lower average investment balances. Net investment income increased 7.1% or $118 million in 2017 compared to 2016 benefiting from strong performance-based results, primarily from limited partnerships, partially offset by lower average investment balances as a result of a decrease in contractholder funds.

Performance-based investments primarily include private equity and real estate. The following table presents investment income for performance-based investments for the years ended December 31.

($ in millions)	2018	2017	2016
Limited partnerships			
Private equity	$ 276	$ 375	$ 248
Real estate	51	82	44
Performance-based - limited partnerships	327	457	292
Non-limited partnerships			
Private equity	1	6	2
Real estate	21	15	15
Performance-based - non-limited partnerships	22	21	17
Total			
Private equity	277	381	250
Real estate	72	97	59
Total performance-based	$ 349	$ 478	$ 309
Investee level expenses [(1)]	$ (23)	$ (16)	$ (16)

(1) Investee level expenses include depreciation and asset level operating expenses reported in investment expense.

Performance-based investment income decreased 27.0% or $129 million in 2018 compared to 2017, primarily due to lower asset appreciation and fewer gains on sales of underlying investments held by limited partnerships compared to prior year.

Performance-based investment income increased 54.7% or $169 million in 2017 compared to 2016. The increase reflects asset appreciation, sales of underlying investments, and the continued growth of our performance-based portfolio.

Performance-based investment results and income can vary significantly between periods and are influenced by economic conditions, equity market performance, comparable public company earnings multiples, capitalization rates, operating performance of the underlying investments and the timing of asset sales.

Realized capital gains and losses The following table presents the components of realized capital gains (losses) and the related tax effect for the years ended December 31.

($ in millions)	2018	2017	2016
Impairment write-downs			
Fixed income securities	$ (8)	$ (17)	$ (35)
Mortgage loans	—	(1)	—
Equity securities [(1)]	—	(12)	(47)
Limited partnership interests	—	(9)	(15)
Other investments	(1)	(2)	(4)
Total impairment write-downs	$ (9)	$ (41)	$ (101)
Change in intent write-downs [(1)]	—	(4)	(12)
Net OTTI losses recognized in earnings	(9)	(45)	(113)
Sales [(1)]	(27)	110	31
Valuation of equity investments [(1)]	(146)	—	—
Valuation and settlements of derivative instruments	7	(16)	5
Realized capital gains (losses), pre-tax	(175)	49	(77)
Income tax benefit (expense)	37	(19)	26
Realized capital gains (losses), after-tax	$ (138)	$ 30	$ (51)
Market-based core	$ (191)	$ 45	$ (53)
Market-based active	(11)	21	4
Performance-based	27	(17)	(28)
Realized capital gains (losses), pre-tax	$ (175)	$ 49	(77)

(1) Due to the adoption of the recognition and measurement accounting standard on January 1, 2018, equity securities are reported at fair value with changes in fair value recognized in valuation of equity investments and are no longer included in impairment write-downs, change in intent write-downs, and sales.

Net realized capital losses in 2018 related primarily to decreased valuation of equity investments and sales of fixed income securities.

Impairment write-downs totaled $9 million, $41 million and $101 million in 2018, 2017 and 2016, respectively.

Impairment write-downs on fixed income securities in 2018 were primarily driven by corporate fixed income securities impacted by issuer specific circumstances. Beginning January 1, 2018, equity securities are reported at fair value with changes in fair value recognized in valuation of equity investments and are no longer included in impairment write-downs.

Impairment write-downs on fixed income securities in 2017 were primarily driven by corporate fixed income securities impacted by issuer specific circumstances. Equity securities were written down primarily due to the length of time and extent to which fair value was below cost, considering our assessment of the financial condition and prospects of the issuer, including relevant industry conditions and trends. Limited partnership write-downs primarily related to private equity investments.

Impairment write-downs on fixed income securities in 2016 were primarily driven by corporate fixed income securities impacted by issuer specific circumstances. Equity securities were written down primarily due to the length of time and extent to which fair value was below cost, considering our assessment of the financial condition and near-term and long-term prospects of the issuer, including relevant industry conditions and trends. Limited partnership write-downs primarily related to investments with exposure to the energy sector, partially offset by the recovery in value of a limited partnership that was previously written-down. Impairment write-downs in 2016 included $41 million related to investments with exposure to the energy sector.

Sales resulted in $27 million of net realized capital losses and $110 million and $31 million of net realized capital gains in 2018, 2017 and 2016, respectively.

Sales in 2018 related primarily to fixed income securities in connection with ongoing portfolio management. Sales in 2017 included gains from valuation changes in public securities held in certain limited partnerships as well as sales of equity and fixed income securities in connection with ongoing portfolio management. Sales in 2016 included sales of equity and fixed income securities in connection with ongoing portfolio management, as well as gains from valuation changes in public securities held in certain limited partnerships.

Valuation of equity investments resulted in losses of $146 million, which included $124 million of declines in the valuation of equity securities and $22 million of declines in value primarily for certain limited partnerships where the underlying assets are predominately public equity securities.

Valuation and settlements of derivative instruments generated net realized capital gains of $7 million in 2018, net realized capital losses of $16 million in 2017 and net realized capital gains of $5 million in 2016. The net realized capital gains on derivative instruments in 2018 primarily comprised gains on foreign currency contracts due to the strengthening of the U.S. dollar, partially offset by losses on equity options and total return swaps used for asset replication due to decreases in equity indices. The net realized capital losses on derivative instruments in 2017 primarily comprised losses on foreign currency contracts due to the weakening of the U.S. dollar and losses on equity futures used for risk management due to increases in equity indices. The net realized capital gains on derivative instruments in 2016 primarily comprised gains on foreign currency contracts due to the strengthening of the U.S. dollar and gains on credit default swaps due to the movement of credit spreads on the underlying credit names, partially offset by losses on equity futures used for risk management due to increases in equity indices.

The table below presents realized capital gains (losses) for performance-based investments for the years ended December 31.

($ in millions)	2018	2017	2016
Impairment write-downs	$ —	$ (9)	$ (33)
Change in intent write-downs	—	—	(1)
Net OTTI losses recognized in earnings	—	(9)	(34)
Sales	(1)	5	2
Valuation of equity investments	16	—	—
Valuation and settlements of derivative instruments	12	(13)	4
Total performance-based	$ 27	$ (17)	$ (28)

Performance based investments generated net realized capital gains of $27 million in 2018, and net realized capital losses of $17 million and $28 million in 2017 and 2016, respectively. 2018 primarily related to increased valuation on equity investments and gains on valuation and settlements of derivative instruments. 2017 included impairment write-downs on private equity investments and derivative losses related to the hedging of foreign currency risk, partially offset by gains on sale of real estate investments. 2016 included impairment write-downs on certain investments with exposure to the energy sector, partially offset by the recovery in value of a limited partnership that was previously written-down.

MARKET RISK

Market risk is the risk that we will incur losses due to adverse changes in interest rates, credit spreads, equity prices, commodity prices or currency exchange rates. Adverse changes to these rates and prices may occur due to changes in fiscal policy, the economic climate, the liquidity of a market or market segment, insolvency or financial distress of key market makers or participants or changes in market perceptions of credit worthiness and/or risk tolerance. Our primary market risk exposures are to changes in interest rates, credit spreads and equity prices. We also have direct and indirect exposure to commodity price changes through our diversified investments in infrastructure and energy primarily held in limited partnership interests.

The active management of market risk is integral to our results of operations. We may use the following approaches to manage exposure to market risk within defined tolerance ranges: 1) rebalancing existing asset or liability portfolios, 2) changing the type of investments purchased in the future and 3) using derivative instruments to modify the market risk characteristics of existing assets and liabilities or assets expected to be purchased. For a more detailed discussion of our use of derivative instruments, see Note 7 of the consolidated financial statements.

Overview In formulating and implementing guidelines for investing funds, we seek to earn attractive risk adjusted returns that enhance our ability to offer competitive rates and prices to customers while contributing to stable profits and long-term capital growth. Accordingly, our investment decisions and objectives are informed by the underlying risks and product profiles.

Investment policies define the overall framework for managing market and other investment risks, including accountability and controls over risk management activities. These investment activities follow policies that have been approved by our board of directors and which specify the investment limits and strategies that are appropriate given the liquidity, surplus, product profile and regulatory requirements. Executive oversight of investment activities is conducted primarily through our board of directors and investment committee. Asset-liability management ("ALM") policies further define the overall framework for managing market and investment risks and are approved by our board of directors. ALM focuses on strategies to enhance yields, mitigate market risks and optimize capital to improve profitability and returns while incorporating future expected cash requirements to repay liabilities. These ALM policies specify limits, ranges and/or targets for investments that best meet business objectives in light of the unique demands and characteristics of the product liabilities and are intended to result in a prudent, methodical and effective adjudication of market risk and return.

We use widely-accepted quantitative and qualitative approaches to measure, monitor and manage market risk. We evaluate our market risk exposure using multiple measures including but not limited to duration, value-at-risk, scenario analysis and sensitivity analysis. Duration measures the price sensitivity of assets and liabilities to changes in interest rates. For example, if interest rates increase 100 basis points, the fair value of an asset with a duration of 5 is expected to decrease in value by 5%. Value-at-risk is a statistical estimate of the probability that the change in fair value of a portfolio will exceed a certain amount over a given time horizon. Scenario analysis estimates the potential changes in the fair value of a portfolio that could occur under hypothetical market conditions defined by changes to multiple market risk factors: interest rates, credit spreads, equity prices or currency exchange rates. Sensitivity analysis estimates the potential changes in the fair value of a portfolio that could occur under different hypothetical shocks to a market risk factor. In general, we establish investment portfolio asset allocation and market risk limits based upon a combination of duration, value-at-risk, scenario analysis and sensitivity analysis. The asset allocation limits place restrictions on the total funds that may be invested within an asset class. Comprehensive day-to-day management of market risk within defined tolerance ranges occurs as portfolio managers buy and sell within their respective markets based upon the acceptable boundaries established by investment policies. Although we apply a similar overall philosophy to market risk, the underlying business frameworks and the accounting and regulatory environments may differ between our products and therefore affect investment decisions and risk parameters.

Interest rate risk is the risk that we will incur a loss due to adverse changes in interest rates relative to the characteristics of our interest-bearing assets and liabilities. Interest rate risk includes risks related to changes in U.S. Treasury yields and other key risk-free reference yields. This risk arises from many of our primary activities, as we invest substantial funds in interest-sensitive assets and issue interest-sensitive liabilities. Changes in interest rates can have favorable and unfavorable effects on our results. For example, increases in rates can improve investment income, but decrease the fair value of our fixed income securities portfolio and increase policyholder surrenders requiring us to liquidate assets. Decreases in rates could increase the fair value of our fixed income securities portfolio while decreasing investment income due to reinvesting at lower market yields and accelerating pay-downs and prepayments of certain investments.

We manage the interest rate risk in our assets relative to the interest rate risk in our liabilities and our assessment of overall economic and capital risk. One of the measures used to quantify this exposure is duration. The difference in the duration of our assets relative to our liabilities is our duration gap. To calculate the duration gap between assets and liabilities, we project asset and liability cash flows and calculate their net present value using a risk-free market interest rate adjusted for credit quality, sector attributes, liquidity and other specific risks. Duration is calculated by revaluing these cash flows at alternative interest rates and determining the percentage change in aggregate fair value. The cash flows used in this calculation include the expected maturity and repricing characteristics of our derivative financial instruments, all other financial instruments, and certain other items including annuity liabilities and other interest-sensitive liabilities. The projections include assumptions (based upon historical market experience and our experience) that reflect the effect of changing interest rates on the prepayment, lapse, leverage and/or option features of instruments, where applicable. The preceding assumptions relate primarily to callable municipal and corporate bonds, fixed rate single and flexible premium deferred annuities, mortgage-backed securities and municipal housing bonds.

As of December 31, 2018, the difference between our asset and liability duration was a (6.18) gap compared to a (8.43) gap as of December 31, 2017. A negative duration gap indicates that the fair value of our liabilities is more sensitive to interest rate movements than the fair value of our assets, while a positive duration gap indicates that the fair value of our assets is more sensitive to interest rate movements than the fair value of our liabilities. We may have a positive or negative duration gap, as the duration of our assets and liabilities vary based on the characteristics of the products in force and investing activity.

Shorter-term annuity liability cash flows are invested in market-based investments to generate cash flows that will fund future claims, benefits and expenses, and that will earn stable returns across a wide variety of interest rate and economic scenarios. To reduce the risk that investment returns are below levels required to meet the funding needs of longer-term liabilities, we are executing our performance-based strategy that supplements market risk with idiosyncratic risk. We are using these investments, in addition to public equity securities, to support our long-term annuity liability cash flows. Performance-based investments and public equity securities are generally not interest-bearing; accordingly, using them to support interest-bearing liabilities contributes toward a negative duration gap.

Based upon the information and assumptions used in the duration calculation, and market interest rates as of December 31, 2018, we estimate that a 100 basis point immediate, parallel increase in interest rates (“rate shock”) would increase the net fair value of the assets and liabilities by $1.11 billion, compared to an increase of $1.61 billion as of December 31, 2017, reflecting year to year changes in duration and the amount of assets and liabilities. The selection of a 100 basis point immediate, parallel change in interest rates should not be construed as our prediction of future market events, but only as an illustration of the potential effect of such an event. The estimate excludes traditional and interest-sensitive life insurance and accident and health insurance products that are not considered financial instruments and the $8.89 billion of assets supporting them and the associated liabilities. The $8.89 billion of assets excluded from the calculation decreased from $9.28 billion as of December 31, 2017. Based on assumptions described above, in the event of a 100 basis point immediate increase in interest rates, the assets supporting the excluded products would decrease in value by $504 million, compared to a decrease of $552 million as of December 31, 2017.

To the extent that conditions differ from the assumptions we used in these calculations, duration and rate shock measures could be significantly impacted. Additionally, our calculations assume the current relationship between short-term and long-term interest rates (the term structure of interest rates) will remain constant over time. As a result, these calculations may not fully capture the effect of non-parallel changes in the term structure of interest rates and/or large changes in interest rates.

Credit spread risk is the risk that we will incur a loss due to adverse changes in credit spreads ("spreads"). Credit spread is the additional yield on fixed income securities and loans above the risk-free rate (typically referenced as the yield on U.S. Treasury securities) that market participants require to compensate them for assuming credit, liquidity and/or prepayment risks. The magnitude of the spread will depend on the likelihood that a particular issuer will default ("credit risk"). This risk arises from many of our primary activities, as we invest substantial funds in spread-sensitive fixed income assets.

We manage the spread risk in our assets. One of the measures used to quantify this exposure is spread duration. Spread duration measures the price sensitivity of the assets to changes in spreads. For example, if spreads increase 100 basis points, the fair value of an asset exhibiting a spread duration of 5 is expected to decrease in value by 5%.

Spread duration is calculated similarly to interest rate duration. As of December 31, 2018, the spread duration was 4.66, compared to 4.73 as of December 31, 2017. Based upon the information and assumptions we use in this spread duration calculation, and market spreads as of December 31, 2018, we estimate that a 100 basis point immediate, parallel increase in spreads across all asset classes, industry sectors and credit ratings ("spread shock") would decrease the net fair value of the assets by $1.18 billion compared to $1.27 billion as of December 31, 2017. Reflected in the spread duration calculation are the effects of tactical positions that may include the use of credit default swaps to manage spread risk. The selection of a 100 basis point immediate parallel change in spreads should not be construed as our prediction of future market events, but only as an illustration of the potential effect of such an event.

Equity price risk is the risk that we will incur losses due to adverse changes in the general levels of the equity markets. As of December 31, 2018, we held $4.62 billion in investments with equity risk (including primarily limited partnership interests, public equity securities and non-redeemable preferred securities), compared to $4.76 billion as of December 31, 2017.

As of December 31, 2018, our portfolio of investments with equity risk had a cash market portfolio beta of 1.11, compared to a beta of 1.08 as of December 31, 2017. Beta represents a widely used methodology to describe, quantitatively, an investment's market risk characteristics relative to an index such as the Standard & Poor's 500 Composite Price Index ("S&P 500"). Based on the beta analysis, we estimate that if the S&P 500 increases or decreases by 10%, the fair value of our equity investments will increase or decrease by 11.1%, respectively. Based upon the information and assumptions we used to calculate beta as of December 31, 2018, we estimate that an immediate increase or decrease in the S&P 500 of 10% would increase or decrease the net fair value of our equity investments by $511 million, compared to $513 million as of December 31, 2017. The selection of a 10% immediate increase or decrease in the S&P 500 should not be construed as our prediction of future market events, but only as an illustration of the potential effect of such an event.

The beta of our investments with equity risk was determined by calculating the change in the fair value of the portfolio resulting from stressing the equity market up and down 10%. For limited partnership interests, quarterly changes in fair values may not be highly correlated to equity indices in the short term and changes in value of these investments are generally recognized on a three-month delay due to the availability of the related investee financial statements. The illustrations noted above may not reflect our actual experience if the future composition of the portfolio (hence its beta) and correlation relationships differ from the historical relationships.

As of December 31, 2018 and 2017, we had separate account assets, related to variable annuity and variable life contracts with account values totaling $2.78 billion and $3.42 billion, respectively. Equity risk exists for contract charges based on separate account balances and guarantees for death and/or income benefits provided by our variable products. In 2006, we disposed of substantially all of the variable annuity business through reinsurance agreements with The Prudential Insurance Company of America, a subsidiary of Prudential Financial Inc. and therefore mitigated this aspect of our risk. Equity risk for our variable life business relates to contract charges and policyholder benefits. Total variable life contract charges, including reinsurance assumed, for 2018 and 2017 were $42 million and $41 million, respectively. Separate account liabilities related to variable life contracts were $63 million and $70 million as of December 31, 2018 and 2017, respectively.

As of December 31, 2018 and 2017, we had $1.75 billion and $1.81 billion, respectively, in equity-indexed life and annuity liabilities that provide customers with interest crediting rates based on the performance of the S&P 500. We hedge the majority of the risk associated with these liabilities using equity-indexed options and futures and eurodollar futures, maintaining risk within specified value-at-risk limits.

Foreign currency exchange rate risk is the risk that we will incur economic losses due to adverse changes in foreign currency exchange rates. This risk primarily arises from our foreign equity investments, including common stocks and limited partnership interests. We use foreign currency derivative contracts to partially offset this risk.

As of December 31, 2018, we had $666 million in foreign currency denominated equity investments, including the impact of foreign currency derivative contracts, and $4 million in unhedged non-U.S. dollar fixed income securities. As of December 31, 2017, we had $766 million in foreign currency denominated equity investments and $9 million in unhedged non-U.S. dollar fixed income securities.

Based upon the information and assumptions used, including the impact of foreign currency derivative contracts, as of December 31, 2018, we estimate that a 10% immediate unfavorable change in each of the foreign currency exchange rates to which we are exposed would decrease the value of our foreign currency denominated instruments by $67 million, compared with an estimated $74 million decrease as of December 31, 2017. The selection of a 10% immediate decrease in all currency exchange rates should not be construed as our prediction of future market events, but only as an illustration of the potential effect of such an event.

The modeling technique we use to report our currency exposure does not take into account correlation among foreign currency exchange rates. Even though we believe it is very unlikely that all of the foreign currency exchange rates that we are exposed to would simultaneously decrease by 10%, we nonetheless stress test our portfolio under this and other hypothetical extreme adverse market scenarios. Our actual experience may differ from these results because of assumptions we have used or because significant liquidity and market events could occur that we did not foresee.

CAPITAL RESOURCES AND LIQUIDITY

Capital resources consist of shareholder's equity and notes due to related parties, representing funds deployed or available to be deployed to support business operations. The following table summarizes our capital resources as of December 31.

($ in millions)	2018	2017	2016
Common stock, retained income and additional capital paid-in	$ 6,439	$ 6,010	$ 5,731
Accumulated other comprehensive income	253	845	678
Total shareholder's equity	6,692	6,855	6,409
Notes due to related parties	140	140	465
Total capital resources	$ 6,832	$ 6,995	$ 6,874

Shareholder's equity decreased in 2018, primarily due to decreased unrealized net capital gains on investments and dividends paid to AIC, partially offset by net income. Shareholder's equity increased in 2017, primarily due to net income and increased unrealized net capital gains on investments, partially offset by dividends paid to AIC.

Notes due to related parties did not change in 2018 and decreased in 2017 as $325 million of surplus notes due to an unconsolidated affiliate were redeemed. See Note 4 of the consolidated financial statements for further detail.

Financial ratings and strength The following table summarizes our insurance financial strength ratings as of December 31, 2018.

Rating agency	Rating
A.M. Best Company, Inc.	A+
S&P Global Ratings	A+
Moody's Investors Service, Inc.	A1

Our ratings are influenced by many factors including our operating and financial performance, asset quality, liquidity, asset/liability management, overall portfolio mix, financial leverage (i.e., debt), exposure to risks, the current level of operating leverage, AIC's ratings and our strategic integration with AIC.

In April 2018, A.M. Best affirmed our insurance financial strength rating of A+ and the outlook for the rating is stable. In August 2018, S&P affirmed our insurance financial strength rating of A+ and the outlook for the rating is stable. In August 2018, Moody's affirmed our insurance financial strength rating of A1 and the outlook for the rating is stable.

ALIC and its life insurance subsidiaries prepare their statutory-basis financial statements in conformity with accounting practices prescribed or permitted by the insurance department of the applicable state of domicile. Statutory surplus is a measure that is often used as a basis for determining dividend paying capacity, operating leverage and premium growth capacity, and it is also reviewed by rating agencies in determining their ratings. As of December 31, 2018, ALIC's statutory surplus was $3.47 billion compared to $3.41 billion as of December 31, 2017.

The National Association of Insurance Commissioners ("NAIC") has developed financial relationships or tests known as the Insurance Regulatory Information System to assist state insurance regulators in monitoring the financial condition of insurance companies and identifying companies that require special attention or actions by state insurance regulators. The NAIC analyzes financial data provided by insurance companies using prescribed ratios, each with defined "usual ranges". Additional regulatory scrutiny may occur if a company's ratios fall outside the usual ranges for four or more of the ratios. None of the insurance companies had more than two ratios outside of the usual ranges.

Liquidity sources and uses Our potential sources of funds principally include the following.

Potential sources of funds	Potential uses of funds
Receipt of insurance premiums	Payment of contract benefits, maturities, surrenders and withdrawals
Contractholder fund deposits	Reinsurance cessions and payments
Reinsurance recoveries	Operating costs and expenses
Receipts of principal, interest and dividends on investments	Purchase of investments
Sales of investments	Repayment of securities lending and line of credit agreements
Funds from securities lending and line of credit agreements	Payment or repayment of intercompany loans
Intercompany loans	Dividends and return of capital to parent
Capital contributions from parent	Tax payments/settlements
Tax refunds/settlements	Debt service expenses and repayment
Funds from issuance of surplus notes or other notes	Payments for acquisitions

We actively manage our financial position and liquidity levels in light of changing market, economic, and business conditions. Liquidity is managed at both the entity and enterprise level across the Company, and is assessed on both base and stressed level liquidity needs. We believe we have sufficient liquidity to meet these needs. Additionally, we have existing intercompany agreements in place that facilitate liquidity management across the Company to enhance flexibility.

The Company is party to an Amended and Restated Intercompany Liquidity Agreement ("Liquidity Agreement") with certain of its affiliates, which include, but are not limited to, AIC, AAC and the Corporation. The Liquidity Agreement allows for short-term advances of funds to be made between parties for liquidity and other general corporate purposes. The Liquidity Agreement does not establish a commitment to advance funds on the part of any party. The Company and AIC each serve as a lender and borrower, AAC and certain other affiliates serve only as borrowers, and the Corporation serves only as a lender. The Company also has a capital support agreement with AIC. Under the capital support agreement, AIC is committed to providing capital to the Company to maintain an adequate capital level. The maximum amount of potential funding under each of these agreements is $1.00 billion.

In addition to the Liquidity Agreement, the Company also has an intercompany loan agreement with the Corporation. The amount of intercompany loans available to the Company is at the discretion of the Corporation. The maximum amount of loans the Corporation will have outstanding to all its eligible subsidiaries at any given point in time is limited to $1.00 billion. The Corporation may use commercial paper borrowings, bank lines of credit and securities lending to fund intercompany borrowings. There were no borrowings by the Company under these agreements during 2018.

The Company, AIC and the Corporation have access to a $1.00 billion unsecured revolving credit facility that is available for short-term liquidity requirements. The maturity date of this facility is April 2021. The facility is fully subscribed among 11 lenders with the largest commitment being $115 million. The commitments of the lenders are several and no lender is responsible for any other lender's commitment if such lender fails to make a loan under the facility. This facility contains an increase provision that would allow up to an additional $500 million of borrowing. This facility has a financial covenant requiring that the Corporation not exceed a 37.5% debt to capitalization ratio as defined in the agreement. This ratio was 16.0% as of December 31, 2018. Although the right to borrow under the facility is not subject to a minimum rating requirement, the costs of maintaining the facility and borrowing under it are based on the ratings of the Corporation's senior unsecured, unguaranteed long-term debt. There were no borrowings under the credit facility during 2018.

Allstate parent company capital capacity The Corporation has at the parent holding company level deployable assets totaling $1.50 billion as of December 31, 2018, comprising cash and investments that are generally saleable within one quarter. This provides funds for the parent company's fixed charges and other corporate purposes. In addition, the Corporation has access to $1.00 billion of funds from either commercial paper issuance or an unsecured revolving credit facility.

In 2018 and 2017, we paid dividends of $250 million and $600 million to AIC, respectively. In 2016, we did not pay any dividends. We did not receive any capital contributions in 2018, 2017 or 2016.

The Company has access to additional borrowings to support liquidity through the Corporation as follows. The amount available to the Company is at the discretion of the Corporation.

- A commercial paper facility with a borrowing limit of $1.00 billion to cover short-term cash needs. As of December 31, 2018, there were no balances outstanding and therefore the remaining borrowing capacity was $1.00 billion; however, the outstanding balance can fluctuate daily.

- A universal shelf registration statement that was filed by the Corporation with the Securities and Exchange Commission that expires in 2021. The Corporation can use this shelf registration to issue an unspecified amount of debt securities, common stock (including 568 million shares of treasury stock as of December 31, 2018), preferred stock, depositary shares, warrants, stock purchase contracts, stock purchase units and securities of trust subsidiaries. The specific terms of any securities the Corporation issues under this registration statement will be provided in the applicable prospectus supplements.

Liquidity exposure Contractholder funds were $17.47 billion as of December 31, 2018. The following table summarizes contractholder funds by their contractual withdrawal provisions.

($ in millions)		**December 31, 2018**	**Percent to total**
Not subject to discretionary withdrawal	$	2,798	16.0%
Subject to discretionary withdrawal with adjustments:			
Specified surrender charges [1]		4,466	25.6
Market value adjustments [2]		996	5.7
Subject to discretionary withdrawal without adjustments [3]		9,210	52.7
Total contractholder funds [4]	$	17,470	100.0%

(1) Includes $832 million of liabilities with a contractual surrender charge of less than 5% of the account balance.
(2) $512 million of the contracts with market value adjusted surrenders have a 30-45 day period at the end of their initial and subsequent interest rate guarantee periods (which are typically 1, 5, 7 or 10 years) during which there is no surrender charge or market value adjustment. $225 million of these contracts have their 30-45 day window period in 2019.
(3) 89% of these contracts have a minimum interest crediting rate guarantee of 3% or higher.
(4) Includes $732 million of contractholder funds on variable annuities reinsured to The Prudential Insurance Company of America, a subsidiary of Prudential Financial Inc., in 2006.

Retail life and annuity products may be surrendered by customers for a variety of reasons. Reasons unique to individual customers include a current or unexpected need for cash or a change in life insurance coverage needs. Other key factors that may impact the likelihood of customer surrender include the level of the contract surrender charge, the length of time the contract has been in force, distribution channel, market interest rates, equity market conditions and potential tax implications. In addition, the propensity for retail life insurance policies to lapse is lower than it is for fixed annuities because of the need for the insured to be re-underwritten upon policy replacement. The surrender and partial withdrawal rate on deferred fixed annuities and interest-sensitive life insurance products, based on the beginning of year contractholder funds, was 7.4% and 6.2% in 2018 and 2017, respectively. We strive to promptly pay customers who request cash surrenders; however, statutory regulations generally provide up to six months in most states to fulfill surrender requests.

Our asset-liability management practices enable us to manage the differences between the cash flows generated by our investment portfolio and the expected cash flow requirements of our life insurance and annuity product obligations.

Certain remote events and circumstances could constrain our, AIC or the Corporation’s liquidity. Those events and circumstances include, for example, a catastrophe resulting in extraordinary losses, a downgrade in the Corporation’s senior long-term debt ratings to non-investment grade status, a downgrade in AIC’s financial strength ratings, or a downgrade in our financial strength ratings. The rating agencies also consider the interdependence of our individually rated entities; therefore, a rating change in one entity could potentially affect the ratings of other related entities.

Cash flows As reflected in our Consolidated Statements of Cash Flows, higher cash provided by operating activities in 2018 compared to 2017 was primarily due to lower payments for operating expenses and higher premiums. Higher cash provided by operating activities in 2017 compared to 2016 was primarily due to higher premiums, higher net investment income and decreased payments for policy and contract benefits, partially offset by higher payments for operating expenses.

Lower cash provided by investing activities in 2018 compared to 2017 was the result of increased purchases of fixed income securities, lower collections on investments and decreased sales of equity and limited partnership securities, partially offset by increased sales on fixed income securities. Higher cash provided by investing activities in 2017 compared to 2016 was the result of higher collections related to mortgage loans and increased limited partnership distributions.

Lower cash used in financing activities in 2018 compared to 2017 was primarily due to lower dividends paid to AIC in 2018, partially offset by increased payments for contractholder surrenders and withdrawals on fixed annuities. Higher cash used in financing activities in 2017 compared to 2016 was primarily due to dividends paid to AIC.

Contractual obligations and commitments Our contractual obligations as of December 31, 2018 and the payments due by period are shown in the following table.

($ in millions)	Total	Less than 1 year	1 to 3 years	Over 3 years to 5 years	Over 5 years
Liabilities for collateral [1]	$ 525	$ 525	$ —	$ —	$ —
Contractholder funds [2]	33,726	2,034	3,799	3,448	24,445
Reserve for life-contingent contract benefits [2]	34,607	1,013	1,973	1,883	29,738
Notes due to related parties [3]	166	5	36	46	79
Payable to affiliates, net	50	50	—	—	—
Other liabilities and accrued expenses [4][5]	500	396	96	4	4
Net unrecognized tax benefits [6]	14	2	12	—	—
Total contractual cash obligations	$ 69,588	$ 4,025	$ 5,916	$ 5,381	$ 54,266

[1] Liabilities for collateral are typically fully secured with cash or short-term investments. We manage our short-term liquidity position to ensure the availability of a sufficient amount of liquid assets to extinguish short-term liabilities as they come due in the normal course of business, including utilizing potential sources of liquidity as disclosed previously.

[2] Contractholder funds represent interest-bearing liabilities arising from the sale of products such as interest-sensitive life and fixed annuities, including immediate annuities without life contingencies. The reserve for life-contingent contract benefits relates primarily to traditional life insurance, immediate annuities with life contingencies and voluntary accident and health insurance. These amounts reflect the present value of estimated cash payments to be made to contractholders and policyholders. Certain of these contracts, such as immediate annuities without life contingencies, involve payment obligations where the amount and timing of the payment are essentially fixed and determinable. These amounts relate to (i) policies or contracts where we are currently making payments and will continue to do so and (ii) contracts where the timing of a portion or all of the payments has been determined by the contract. Other contracts, such as interest-sensitive life, fixed deferred annuities, traditional life insurance and voluntary accident and health insurance, involve payment obligations where a portion or all of the amount and timing of future payments is uncertain. For these contracts, we are not currently making payments and will not make payments until (i) the occurrence of an insurable event such as death or illness or (ii) the occurrence of a payment triggering event such as the surrender or partial withdrawal on a policy or deposit contract, which is outside of our control. For immediate annuities with life contingencies, the amount of future payments is uncertain since payments will continue as long as the annuitant lives. We have estimated the timing of payments related to these contracts based on historical experience and our expectation of future payment patterns. Uncertainties relating to these liabilities include mortality, morbidity, expenses, customer lapse and withdrawal activity, estimated additional deposits for interest-sensitive life contracts, and renewal premium for life policies, which may significantly impact both the timing and amount of future payments. Such cash outflows reflect adjustments for the estimated timing of mortality, retirement, and other appropriate factors, but are undiscounted with respect to interest. As a result, the sum of the cash outflows shown for all years in the table exceeds the corresponding liabilities of $17.47 billion for contractholder funds and $11.24 billion for reserve for life-contingent contract benefits as included in the Consolidated Statements of Financial Position as of December 31, 2018. The liability amount in the Consolidated Statements of Financial Position reflects the discounting for interest as well as adjustments for the timing of other factors as described above. Future premium collections are not included in the amounts presented in the table above.

[3] Amount differs from the balance presented on the Consolidated Statements of Financial Position as of December 31, 2018 because the notes due to related parties amount above includes interest.

[4] Other liabilities primarily include accrued expenses, claim payments and other checks outstanding.

[5] Balance sheet liabilities not included in the table above include gross deferred tax liabilities of $671 million and unearned and advance premiums of $13 million. These items were excluded as they do not meet the definition of a contractual liability as we are not contractually obligated to pay these amounts to third parties. Rather, they represent an accounting mechanism that allows us to present our financial statements on an accrual basis. In addition, other liabilities of $10 million were not included in the table above because they did not represent a contractual obligation or the amount and timing of their eventual payment was sufficiently uncertain.

[6] Net unrecognized tax benefits represent our potential future obligation to the taxing authority for a tax position that was not recognized in the consolidated financial statements. We believe it is reasonably possible that a decrease of up to $2 million in unrecognized tax benefits may occur within the next twelve months due to IRS settlements. The resolution of this obligation may be for an amount different than what we have accrued.

Our contractual commitments as of December 31, 2018 and the periods in which the commitments expire are shown in the following table.

($ in millions)	Total	Less than 1 year	1 to 3 years	Over 3 years to 5 years	Over 5 years
Other commitments - conditional	$ 183	$ 78	$ 91	$ 10	$ 4
Other commitments - unconditional	1,195	121	112	177	785
Total commitments	$ 1,378	$ 199	$ 203	$ 187	$ 789

Contractual commitments represent investment commitments such as private placements, limited partnership interests and other loans. Limited partnership interests are typically funded over the commitment period which is shorter than the contractual expiration date of the partnership and as a result, the actual timing of the funding may vary.

We have agreements in place for services we conduct, generally at cost, between subsidiaries relating to insurance, reinsurance, loans and capitalization. All material intercompany transactions have been appropriately eliminated in consolidation. Intercompany transactions among insurance subsidiaries and affiliates have been approved by the appropriate departments of insurance as required.

For a more detailed discussion of our off-balance sheet arrangements, see Note 7 of the consolidated financial statements.

APPLICATION OF CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (“GAAP”) requires management to adopt accounting policies and make estimates and assumptions that affect amounts reported in the consolidated financial statements. The most critical estimates, presented in the order they appear in the Consolidated Statements of Financial Position, include those used in determining:

- Fair value of financial assets
- Impairment of fixed income securities
- Deferred policy acquisition costs amortization
- Reserve for life-contingent contract benefits estimation

In making these determinations, management makes subjective and complex judgments that frequently require estimates about matters that are inherently uncertain. Many of these policies, estimates and related judgments are common in the insurance and financial services industries; others are specific to our business and operations. It is reasonably likely that changes in these estimates could occur from period to period and result in a material impact on our consolidated financial statements.

A summary of each of these critical accounting estimates follows. For a more detailed discussion of the effect of these estimates on our consolidated financial statements, and the judgments and assumptions related to these estimates, see the referenced sections of this document. For a more detailed summary of our significant accounting policies, see the notes to the consolidated financial statements.

Fair value of financial assets Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. We are responsible for the determination of fair value of financial assets and the supporting assumptions and methodologies. We use independent third-party valuation service providers, broker quotes and internal pricing methods to determine fair values. We obtain or calculate only one single quote or price for each financial instrument.

Valuation service providers typically obtain data about market transactions and other key valuation model inputs from multiple sources and, through the use of proprietary models, produce valuation information in the form of a single fair value for individual fixed income and other securities for which a fair value has been requested under the terms of our agreements. The inputs used by the valuation service providers include, but are not limited to, market prices from recently completed transactions and transactions of comparable securities, interest rate yield curves, credit spreads, liquidity spreads, currency rates, and other information, as applicable. Credit and liquidity spreads are typically implied from completed transactions and transactions of comparable securities. Valuation service providers also use proprietary discounted cash flow models that are widely accepted in the financial services industry and similar to those used by other market participants to value the same financial instruments. The valuation models take into account, among other things, market observable information as of the measurement date, as described above, as well as the specific attributes of the security being valued including its term, interest rate, credit rating, industry sector, and where applicable, collateral quality and other issue or issuer specific information. Executing valuation models effectively requires seasoned professional judgment and experience. For certain equity securities, valuation service providers provide market quotations for completed transactions on the measurement date. In cases where market transactions or other market observable data is limited, the extent to which judgment is applied varies inversely with the availability of market observable information.

For certain of our financial assets measured at fair value, where our valuation service providers cannot provide fair value determinations, we obtain a single non-binding price quote from a broker familiar with the security who, similar to our valuation service providers, may consider transactions or activity in similar securities among other information. The brokers providing price quotes are generally from the brokerage divisions of financial institutions with market making, underwriting and distribution expertise regarding the security subject to valuation.

The fair value of certain financial assets, including privately placed corporate fixed income securities and free-standing derivatives, for which our valuation service providers or brokers do not provide fair value determinations, is developed using valuation methods and models widely accepted in the financial services industry. Our internal pricing methods are primarily based on models using discounted cash flow methodologies that develop a single best estimate of fair value. Our models generally incorporate inputs that we believe are representative of inputs other market participants would use to determine fair value of the same instruments, including yield curves, quoted market prices of comparable securities or instruments, published credit spreads, and other applicable market data as well as instrument-specific characteristics that include, but are not limited to, coupon rates, expected cash flows, sector of the issuer, and call provisions. Because judgment is required in developing the fair values of these financial assets, they may differ from the amount actually received to sell an asset in an orderly transaction between market participants at the measurement date. Moreover, the use of different valuation assumptions may have a material effect on the financial assets’ fair values.

For most of our financial assets measured at fair value, all significant inputs are based on or corroborated by market observable data and significant management judgment does not affect the periodic determination of fair value. The determination of fair value using discounted cash flow models involves management judgment when significant model inputs are not based on or corroborated by market observable data. However, where market observable data is available, it takes precedence, and as a result, no range of reasonably likely inputs exists from which the basis of a sensitivity analysis could be constructed.

We gain assurance that our financial assets are appropriately valued through the execution of various processes and controls designed to ensure the overall reasonableness and consistent application of valuation methodologies, including inputs and assumptions, and compliance with accounting standards. For fair values received from third parties or internally estimated, our processes and controls are designed to ensure that the valuation methodologies are appropriate and consistently applied, the inputs and assumptions are reasonable and consistent with the objective of determining fair value, and the fair values are accurately recorded. For example, on a continuing basis, we assess the reasonableness of individual fair values that have stale security prices or that exceed certain thresholds as compared to previous fair values received from valuation service providers or brokers or derived from internal models. We perform procedures to understand and assess the methodologies, processes and controls of valuation service providers. In addition, we may validate the reasonableness of fair values by comparing information obtained from valuation service providers or brokers to other third party valuation sources for selected securities. We perform ongoing price validation procedures such as back-testing of actual sales, which corroborate the various inputs used in internal models to market observable data. When fair value determinations are expected to be more variable, we validate them through reviews by members of management who have relevant expertise and who are independent of those charged with executing investment transactions.

We also perform an analysis to determine whether there has been a significant decrease in the volume and level of activity for the asset when compared to normal market activity, and if so, whether transactions may not be orderly. Among the indicators we consider in determining whether a significant decrease in the volume and level of market activity for a specific asset has occurred include the level of new issuances in the primary market, trading volume in the secondary market, level of credit spreads over historical levels, bid-ask spread, and price consensuses among market participants and sources. If evidence indicates that prices are based on transactions that are not orderly, we place little, if any, weight on the transaction price and will estimate fair value using an internal model. As of December 31, 2018 and 2017, we did not adjust fair values provided by our valuation service providers or brokers or substitute them with an internal model for such securities.

The following table identifies fixed income and equity securities and short-term investments as of December 31, 2018 by source of fair value determination.

($ in millions)	Fair value	Percent to total
Fair value based on internal sources	$ 2,649	11.3%
Fair value based on external sources [(1)]	20,886	88.7
Total	$ 23,535	100.0%

(1) Includes $93 million that are valued using broker quotes and $100 million that are valued using quoted prices or quoted net asset values from deal sponsors.

For additional detail on fair value measurements, see Note 6 of the consolidated financial statements.

Impairment of fixed income securities For fixed income securities classified as available-for-sale, the difference between fair value and amortized cost, net of certain other items and deferred income taxes (as disclosed in Note 5 of the consolidated financial statements), is reported as a component of AOCI on the Consolidated Statements of Financial Position and is not reflected in the operating results of any period until reclassified to net income upon the consummation of a transaction with an unrelated third party or when a write-down is recorded due to an other-than-temporary decline in fair value. We have a comprehensive portfolio monitoring process to identify and evaluate each fixed income security whose carrying value may be other-than-temporarily impaired.

For each fixed income security in an unrealized loss position, we assess whether management with the appropriate authority has made the decision to sell or whether it is more likely than not we will be required to sell the security before recovery of the amortized cost basis for reasons such as liquidity, contractual or regulatory purposes. If a security meets either of these criteria, the security's decline in fair value is considered other than temporary and is recorded in earnings.

If we have not made the decision to sell the fixed income security and it is not more likely than not we will be required to sell the fixed income security before recovery of its amortized cost basis, we evaluate whether we expect to receive cash flows sufficient to recover the entire amortized cost basis of the security. We use our best estimate of future cash flows expected to be collected from the fixed income security, discounted at the security's original or current effective rate, as appropriate, to calculate a recovery value and determine whether a credit loss exists. The determination of cash flow estimates is inherently subjective and methodologies may vary depending on facts and circumstances specific to the security. All reasonably available information relevant to the collectability of the security, including past events, current conditions, and reasonable and supportable assumptions and forecasts, is considered when developing the estimate of cash flows expected to be collected. That information generally includes, but is not limited to, the remaining payment terms of the security, prepayment speeds, foreign exchange rates, the financial condition and future earnings potential of the issue or issuer, expected defaults, expected recoveries, the value of underlying collateral, vintage, geographic concentration, available reserves or escrows, current subordination levels, third party guarantees and other credit enhancements. Other information, such as industry analyst reports and forecasts, sector credit ratings, financial condition of the bond insurer for insured fixed income securities, and other market data relevant to the realizability of contractual cash flows, may also be considered. The estimated fair value of collateral will be used to estimate recovery value if we determine that the security is dependent on the liquidation of collateral for ultimate settlement. If the estimated recovery value is less than the amortized cost of the security, a credit loss exists and an other-than-temporary impairment for the difference between the estimated recovery value and amortized cost is recorded in earnings. The portion of the unrealized loss related to factors other than credit remains classified in AOCI. If we determine that the fixed income security does not have sufficient cash flow or other information to estimate a recovery value for the security, we may conclude that the entire decline in fair value is deemed to be credit related and the loss is recorded in earnings.

Once assumptions and estimates are made, any number of changes in facts and circumstances could cause us to subsequently determine that a fixed income security is other-than-temporarily impaired, including: 1) general economic conditions that are worse than previously forecast or that have a greater adverse effect on a particular issuer or industry sector than originally estimated; 2) changes in the facts and circumstances related to a particular issue or issuer's ability to meet all of its contractual obligations; and 3) changes in facts and circumstances that result in management's decision to sell or result in our assessment that it is more likely than not we will be required to sell before recovery of the amortized cost basis. Changes in assumptions, facts and circumstances could result in additional charges to earnings in future periods to the extent that losses are realized. The charge to earnings, while potentially significant to net income, would not have a significant effect on shareholder's equity, since our fixed income securities are designated as available-for-sale and carried at fair value and as a result, any related unrealized loss, net of deferred income taxes and related DAC, deferred sales inducement costs and reserves for life-contingent contract benefits, would already be reflected as a component of AOCI in shareholder's equity.

The determination of the amount of other-than-temporary impairment is an inherently subjective process based on periodic evaluations of the factors described above. Such evaluations and assessments are revised as conditions change and new information becomes available. We update our evaluations regularly and reflect changes in other-than-temporary impairments in our results of operations as such evaluations are revised. The use of different methodologies and assumptions in the determination of the amount of other-than-temporary impairments may have a material effect on the amounts recognized and presented within the consolidated financial statements.

For additional detail on investment impairments, see Note 5 of the consolidated financial statements.

Deferred policy acquisition costs amortization We incur significant costs in connection with acquiring insurance policies and investment contracts. In accordance with GAAP, costs that are related directly to the successful acquisition of new or renewal insurance policies and investment contracts are deferred and recorded as an asset on the Consolidated Statements of Financial Position.

DAC related to traditional life and voluntary accident and health insurance is amortized over the premium paying period of the related policies in proportion to the estimated revenues on such business. Significant assumptions relating to estimated premiums, investment returns, as well as mortality, persistency and expenses to administer the business are established at the time the policy is issued and are generally not revised during the life of the policy. The assumptions for determining the timing and amount of DAC amortization are consistent with the assumptions used to calculate the reserve for life-contingent contract benefits. Any deviations from projected business in force resulting from actual policy terminations differing from expected levels and any estimated premium deficiencies may result in a change to the rate of amortization in the period such events occur. Generally, the amortization periods for these policies approximate the estimated lives of the policies. The recovery of DAC is dependent upon the future profitability of the business. We periodically review the adequacy of reserves and recoverability of DAC for these policies using actual experience and current assumptions. Prior to fourth quarter 2017, we evaluated our traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. Beginning in fourth quarter 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance products are reviewed individually, consistent with the review of these products performed by The Allstate Corporation. In the event actual experience and current assumptions are adverse compared to the original assumptions and a premium deficiency is determined to exist, any remaining unamortized DAC balance must be expensed to the extent not recoverable and a premium deficiency reserve may be required if the remaining DAC balance is insufficient to absorb the deficiency. In 2018, 2017 and 2016, our reviews concluded that no premium deficiency adjustments were necessary. For additional detail on reserve adequacy, see the Reserve for life-contingent contract benefits estimation section.

DAC related to interest-sensitive life insurance and fixed annuities is amortized in proportion to the incidence of the total present value of gross profits, which includes both actual historical gross profits ("AGP") and estimated future gross profits ("EGP") expected to be earned over the estimated lives of the contracts. The amortization is net of interest on the prior period DAC balance using rates established at the inception of the contracts. Actual amortization periods generally range from 15-30 years; however, incorporating estimates of the rate of customer surrenders, partial withdrawals and deaths generally results in the majority of the DAC being amortized during the surrender charge period, which is typically 10-20 years for interest-sensitive life and 5-10 years for fixed annuities. The rate of DAC amortization is reestimated and adjusted by a cumulative charge or credit to income when there is a difference between the incidence of actual versus expected gross profits in a reporting period or when there is a change in total EGP.

AGP and EGP primarily consist of the following components: contract charges for the cost of insurance less mortality costs and other benefits (benefit margin); investment income and realized capital gains and losses less interest credited (investment margin); and surrender and other contract charges less maintenance expenses (expense margin). The principal assumptions for determining the amount of EGP are mortality, persistency, expenses, investment returns, including capital gains and losses on assets supporting contract liabilities, interest crediting rates to contractholders, and the effects of any hedges, and these assumptions are reasonably likely to have the greatest impact on the amount of DAC amortization. Changes in these assumptions can be offsetting and we are unable to reasonably predict their future movements or offsetting impacts over time.

Each reporting period, DAC amortization is recognized in proportion to AGP for that period adjusted for interest on the prior period DAC balance. This amortization process includes an assessment of AGP compared to EGP, the actual amount of business remaining in force and realized capital gains and losses on investments supporting the product liability. The impact of realized capital gains and losses on amortization of DAC depends upon which product liability is supported by the assets that give rise to the gain or loss. If the AGP is greater than EGP in the period, but the total EGP is unchanged, the amount of DAC amortization will generally increase, resulting in a current period decrease to earnings. The opposite result generally occurs when the AGP is less than the EGP in the period, but the total EGP is unchanged. However, when DAC amortization or a component of gross profits for a quarterly period is potentially negative (which would result in an increase of the DAC balance) as a result of negative AGP, the specific facts and circumstances surrounding the potential negative amortization are considered to determine whether it is appropriate for recognition in the consolidated financial statements. Negative amortization is only recorded when the increased DAC balance is determined to be recoverable based on facts and circumstances. For products whose supporting investments are exposed to capital losses in excess of our expectations which may cause periodic AGP to become temporarily negative, EGP and AGP utilized in DAC amortization may be modified to exclude the excess capital losses.

Annually, we review and update the assumptions underlying the projections of EGP, including mortality, persistency, expenses, investment returns, comprising investment income and realized capital gains and losses, interest crediting rates and the effect of any hedges, using our experience and industry experience. At each reporting period, we assess whether any revisions to assumptions used to determine DAC amortization are required. These reviews and updates may result in amortization acceleration or deceleration, which are referred to as “DAC unlocking”. If the update of assumptions causes total EGP to increase, the rate of DAC amortization will generally decrease, resulting in a current period increase to earnings. A decrease to earnings generally occurs when the assumption update causes the total EGP to decrease.

The following table provides the effect on DAC amortization of changes in assumptions relating to the gross profit components of investment margin, benefit margin and expense margin during the years ended December 31.

($ in millions)	**2018**	**2017**	**2016**
Investment margin	$ 9	$ 9	$ (3)
Benefit margin	(7)	(22)	—
Expense margin	—	(1)	(3)
Net acceleration (deceleration)	$ 2	$ (14)	$ (6)

In 2018, DAC amortization acceleration for changes in the investment margin component of EGP related to interest-sensitive life insurance and was due to lower projected investment returns. The deceleration related to benefit margin primarily related to interest-sensitive life insurance and was due to a decrease in projected mortality.

In 2017, DAC amortization acceleration for changes in the investment margin component of EGP related to interest-sensitive life insurance and was due to continued low interest rates and lower projected investment returns. The deceleration related to benefit margin primarily related to interest-sensitive life insurance and was due to a decrease in projected mortality.

In 2016, DAC amortization deceleration for changes in the investment margin component of EGP related to interest-sensitive life insurance and was due to increased projected investment margins from a favorable asset portfolio mix. The expense margin deceleration related primarily to variable life insurance and was due to a decrease in projected expenses.

The following table displays the sensitivity of reasonably likely changes in assumptions included in the gross profit components of investment margin or benefit margin to amortization of the DAC balance as of December 31, 2018.

($ in millions)	Increase/(reduction)
Increase in future investment margins of 25 basis points	$ 55
Decrease in future investment margins of 25 basis points	$ (61)
Decrease in future life mortality by 1%	$ 15
Increase in future life mortality by 1%	$ (15)

Any potential changes in assumptions discussed above are measured without consideration of correlation among assumptions. Therefore, it would be inappropriate to add them together in an attempt to estimate overall variability in amortization.

For additional detail related to DAC, see the Operations section of this document.

Reserve for life-contingent contract benefits estimation Due to the long-term nature of traditional life insurance, life-contingent immediate annuities and voluntary accident and health insurance products, benefits are payable over many years; accordingly, the reserves are calculated as the present value of future expected benefits to be paid, reduced by the present value of future expected net premiums. Long-term actuarial assumptions of future investment yields, mortality, morbidity, policy terminations and expenses are used when establishing the reserve for life-contingent contract benefits payable under these insurance policies. These assumptions, which for traditional life insurance are applied using the net level premium method, include provisions for adverse deviation and generally vary by characteristics such as type of coverage, year of issue and policy duration. Future investment yield assumptions are determined based upon prevailing investment yields as well as estimated reinvestment yields. Mortality, morbidity and policy termination assumptions are based on our experience and industry experience. Expense assumptions include the estimated effects of inflation and expenses to be incurred beyond the premium-paying period. These assumptions are established at the time the policy is issued, are consistent with assumptions for determining DAC amortization for these policies, and are generally not changed during the policy coverage period. However, if actual experience emerges in a manner that is significantly adverse relative to the original assumptions, adjustments to DAC or reserves may be required resulting in a charge to earnings which could have a material effect on our operating results and financial condition.

We periodically review the adequacy of reserves and recoverability of DAC for these policies using actual experience and current assumptions. In the event actual experience and current assumptions are adverse compared to the original assumptions and a premium deficiency is determined to exist, any remaining unamortized DAC balance must be expensed to the extent not recoverable and the establishment of a premium deficiency reserve may be required.

Prior to fourth quarter 2017, we evaluated our traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. Beginning in fourth quarter 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance are reviewed individually, consistent with the review of these products performed by The Allstate Corporation. In 2018, 2017 and 2016, our reviews concluded that no premium deficiency adjustments were necessary. As of December 31, 2018, traditional life insurance and voluntary accident and health insurance both have a substantial sufficiency. As of December 31, 2018, there is marginal sufficiency in the evaluation of immediate annuities with life contingencies which has been adversely impacted primarily by sub-standard structured settlement mortality expectations. The sufficiency represents approximately 4% of applicable reserves for annuity products as of December 31, 2018. Additional reserves may be required in future periods if the evaluation results in a premium deficiency.

In 2016, we completed a mortality study for our structured settlement annuities with life contingencies. The study indicated that annuitants are living longer and receiving benefits for a longer period than originally estimated due to medical advances and access to medical care. Investment strategy changes to increase performance-based investments and equity securities resulted in a favorable change in the long-term investment yield assumptions. These results were included in the premium deficiency and profits followed by losses evaluations as of December 31, 2016, and no adjustments were recognized.

The following table displays the sensitivity of changes in the future investment yield assumption included in the annuity premium deficiency evaluation to the sufficiency balance as of December 31, 2018.

($ in millions)	Increase/(reduction) in sufficiency	Change in sufficiency as a percentage of applicable reserves
Increase in future investment yields of 25 basis points	$198	3%
Decrease in future investment yields of 25 basis points	$(205)	(3)%

We also review these policies for circumstances where projected profits would be recognized in early years followed by projected losses in later years. In 2018, 2017 and 2016, our reviews concluded that there were no projected losses following projected profits in each long-term projection.

We will continue to monitor the experience of our traditional life insurance and immediate annuities. We anticipate that mortality, investment and reinvestment yields, and policy terminations are the factors that would be most likely to require premium deficiency adjustments to these reserves or related DAC. Mortality rates and investment and reinvestment yields are the factors that would be most likely to require a profits followed by losses liability accrual.

For further detail on the reserve for life-contingent contract benefits, see Note 8 of the consolidated financial statements.

REGULATION AND LEGAL PROCEEDINGS

We are subject to extensive regulation and we are involved in various legal and regulatory actions, all of which have an effect on specific aspects of our business. For a detailed discussion of the legal and regulatory actions in which we are involved, see Note 11 of the consolidated financial statements.

PENDING ACCOUNTING STANDARDS

There are pending accounting standards that we have not implemented because the implementation date has not yet occurred. For a discussion of these pending standards, see Note 2 of the consolidated financial statements.

The effect of implementing certain accounting standards on our financial results and financial condition is often based in part on market conditions at the time of implementation of the standard and other factors we are unable to determine prior to implementation. For this reason, we are sometimes unable to estimate the effect of certain pending accounting standards until the relevant authoritative body finalizes these standards or until we implement them.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Information required for Item 7A is incorporated by reference to the material under the caption "Market Risk" in Part II, Item 7 of this report.

Item 8. Financial Statements and Supplementary Data

ALLSTATE LIFE INSURANCE COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

($ in millions)	Year Ended December 31,		
	2018	2017	2016
Revenues			
Premiums (net of reinsurance ceded of $138, $149 and $158)	$ 704	$ 690	$ 592
Contract charges (net of reinsurance ceded of $188, $191 and $189)	695	703	717
Other revenue	38	40	45
Net investment income	1,585	1,777	1,659
Realized capital gains and losses:			
Total other-than-temporary impairment (“OTTI”) losses	(7)	(46)	(120)
OTTI losses reclassified (from) to other comprehensive income	(2)	1	7
Net OTTI losses recognized in earnings	(9)	(45)	(113)
Sales and valuation changes on equity investments and derivatives	(166)	94	36
Total realized capital gains and losses	(175)	49	(77)
Total revenues	2,847	3,259	2,936
Costs and expenses			
Contract benefits (net of reinsurance ceded of $249, $208 and $224)	1,446	1,430	1,387
Interest credited to contractholder funds (net of reinsurance ceded of $44, $46 and $46)	601	639	677
Amortization of deferred policy acquisition costs	146	152	134
Operating costs and expenses	271	321	264
Restructuring and related charges	2	2	1
Interest expense	5	4	15
Total costs and expenses	2,471	2,548	2,478
Gain on disposition of operations	6	7	5
Income from operations before income tax expense	382	718	463
Income tax expense (benefit)	17	(278)	144
Net income	365	996	319
Other comprehensive (loss) income, after-tax			
Change in unrealized net capital gains and losses	(354)	5	153
Change in unrealized foreign currency translation adjustments	—	11	4
Other comprehensive (loss) income, after-tax	(354)	16	157
Comprehensive income	$ 11	$ 1,012	$ 476

See notes to consolidated financial statements.

ALLSTATE LIFE INSURANCE COMPANY AND SUBSIDIARES
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

($ in millions, except par value data)	December 31, 2018	December 31, 2017
Assets		
Investments		
Fixed income securities, at fair value (amortized cost $21,057 and $22,004)	$ 21,400	$ 23,261
Mortgage loans	3,995	3,876
Equity securities, at fair value (cost $1,197 and $1,306)	1,325	1,614
Limited partnership interests	3,292	3,147
Short-term, at fair value (amortized cost $810 and $725)	810	725
Policy loans	561	561
Other	1,300	1,254
Total investments	32,683	34,438
Cash	52	145
Deferred policy acquisition costs	1,232	1,156
Reinsurance recoverable from non-affiliates	2,185	2,243
Reinsurance recoverable from affiliates	420	437
Accrued investment income	253	263
Other assets	534	501
Separate Accounts	2,783	3,422
Total assets	$ 40,142	$ 42,605
Liabilities		
Contractholder funds	$ 17,470	$ 18,592
Reserve for life-contingent contract benefits	11,239	11,625
Unearned premiums	4	4
Payable to affiliates, net	50	55
Other liabilities and accrued expenses	1,101	1,076
Deferred income taxes	663	836
Notes due to related parties	140	140
Separate Accounts	2,783	3,422
Total liabilities	33,450	35,750
Commitments and Contingent Liabilities (Notes 7 and 11)		
Shareholder's Equity		
Redeemable preferred stock - series A, $100 par value, 1,500,000 shares authorized, none issued	—	—
Redeemable preferred stock - series B, $100 par value, 1,500,000 shares authorized, none issued	—	—
Common stock, $227 par value, 23,800 shares authorized and outstanding	5	5
Additional capital paid-in	2,024	2,024
Retained income	4,410	3,981
Accumulated other comprehensive income:		
Unrealized net capital gains and losses:		
Unrealized net capital gains and losses on fixed income securities with OTTI	45	47
Other unrealized net capital gains and losses	225	1,186
Unrealized adjustment to DAC, DSI and insurance reserves	(27)	(398)
Total unrealized net capital gains and losses	243	835
Unrealized foreign currency translation adjustments	10	10
Total accumulated other comprehensive income ("AOCI")	253	845
Total shareholder's equity	6,692	6,855
Total liabilities and shareholder's equity	$ 40,142	$ 42,605

See notes to consolidated financial statements.

ALLSTATE LIFE INSURANCE COMPANY AND SUBSIDIARES
CONSOLIDATED STATEMENTS OF SHAREHOLDER'S EQUITY

($ in millions)	Year Ended December 31,		
	2018	2017	2016
Common stock	$ 5	$ 5	$ 5
Additional capital paid-in			
Balance, beginning of year	2,024	1,990	1,990
Gain on reinsurance with an affiliate	—	34	—
Balance, end of year	2,024	2,024	1,990
Retained income			
Balance, beginning of year	3,981	3,736	3,417
Cumulative effect of change in accounting principle	314	—	—
Net income	365	996	319
Dividends	(250)	(600)	—
Reclassification of tax effects due to change in accounting principle	—	(151)	—
Balance, end of year	4,410	3,981	3,736
Accumulated other comprehensive income			
Balance, beginning of year	845	678	521
Cumulative effect of change in accounting principle	(238)	—	—
Change in unrealized net capital gains and losses	(354)	5	153
Change in unrealized foreign currency translation adjustments	—	11	4
Reclassification of tax effects due to change in accounting principle	—	151	—
Balance, end of year	253	845	678
Total shareholder's equity	$ 6,692	$ 6,855	$ 6,409

See notes to consolidated financial statements.

ALLSTATE LIFE INSURANCE COMPANY AND SUBSIDIARES
CONSOLIDATED STATEMENTS OF CASH FLOWS

($ in millions)	Year Ended December 31,		
	2018	2017	2016
Cash flows from operating activities			
Net income	$ 365	$ 996	$ 319
Adjustments to reconcile net income to net cash provided by operating activities:			
Amortization and other non-cash items	(58)	(64)	(64)
Realized capital gains and losses	175	(49)	77
Gain on disposition of operations	(6)	(7)	(5)
Interest credited to contractholder funds	601	639	677
Changes in:			
Policy benefits and other insurance reserves	(612)	(529)	(611)
Deferred policy acquisition costs	67	31	54
Reinsurance recoverables, net	51	56	30
Income taxes	(64)	(308)	135
Other operating assets and liabilities	136	(159)	(117)
Net cash provided by operating activities	655	606	495
Cash flows from investing activities			
Proceeds from sales			
Fixed income securities	4,858	3,916	5,999
Equity securities	1,257	1,536	1,298
Limited partnership interests	367	539	371
Other investments	39	45	44
Investment collections			
Fixed income securities	1,448	1,733	2,085
Mortgage loans	434	566	363
Other investments	168	208	169
Investment purchases			
Fixed income securities	(5,444)	(4,698)	(7,072)
Equity securities	(1,086)	(1,385)	(1,234)
Limited partnership interests	(551)	(631)	(677)
Mortgage loans	(552)	(503)	(517)
Other investments	(270)	(238)	(211)
Change in short-term investments, net	(3)	(12)	(19)
Change in policy loans and other investments, net	(69)	(37)	(26)
Net cash provided by investing activities	596	1,039	573
Cash flows from financing activities			
Contractholder fund deposits	771	808	854
Contractholder fund withdrawals	(1,893)	(1,823)	(2,028)
Proceeds from issuance of notes to related parties	—	—	140
Dividends paid	(250)	(600)	—
Other	28	(23)	—
Net cash used in financing activities	(1,344)	(1,638)	(1,034)
Net (decrease) increase in cash	(93)	7	34
Cash at beginning of year	145	138	104
Cash at end of year	$ 52	$ 145	$ 138

See notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. General

Basis of presentation

The accompanying consolidated financial statements include the accounts of Allstate Life Insurance Company ("ALIC") and its wholly owned subsidiaries (collectively referred to as the "Company"). ALIC is wholly owned by Allstate Insurance Company ("AIC"), which is wholly owned by Allstate Insurance Holdings, LLC, a wholly owned subsidiary of The Allstate Corporation (the "Corporation"). These consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). All significant intercompany accounts and transactions have been eliminated.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 ("Tax Legislation") became effective, permanently reducing the U.S. corporate income tax rate from 35% to 21% beginning January 1, 2018. As a result, the corporate tax rate is not comparable between periods.

Nature of operations

The Company offers traditional and interest-sensitive life insurance products. The Company also offers variable life insurance in New York, while previously selling variable life insurance nationwide through September 2017. The Company distributes its products through Allstate exclusive agencies and exclusive financial specialists. The Company also offers voluntary accident and health insurance through workplace enrolling independent agents in New York. The Company previously offered and continues to have in force fixed annuities such as deferred and immediate annuities. The Company also previously offered variable annuities and substantially all of this business is reinsured.

The following table summarizes premiums and contract charges by product.

($ in millions)	2018	2017	2016
Premiums			
Traditional life insurance	$ 582	$ 579	$ 502
Accident and health insurance	122	111	90
Total premiums	704	690	592
Contract charges			
Interest-sensitive life insurance	680	689	703
Fixed annuities	15	14	14
Total contract charges	695	703	717
Total premiums and contract charges	$ 1,399	$ 1,393	$ 1,309

The Company, through several subsidiaries, is authorized to sell life insurance and retirement products in all 50 states, the District of Columbia and Puerto Rico. For 2018, the top geographic locations for direct statutory premiums and annuity considerations were New York, California, Texas, Florida and Illinois. No other jurisdiction accounted for more than 5% of direct statutory premiums and annuity considerations.

2. Summary of Significant Accounting Policies

Investments

Fixed income securities include bonds, asset-backed securities ("ABS"), residential mortgage-backed securities ("RMBS"), commercial mortgage-backed securities ("CMBS") and redeemable preferred stocks. Fixed income securities, which may be sold prior to their contractual maturity, are designated as available-for-sale and are carried at fair value. The difference between amortized cost and fair value, net of deferred income taxes and related deferred policy acquisition costs ("DAC"), deferred sales inducement costs ("DSI") and reserves for life-contingent contract benefits, is reflected as a component of AOCI. Cash received from calls and make-whole payments is reflected as a component of proceeds from sales and cash received from maturities and pay-downs is reflected as a component of investment collections within the Consolidated Statements of Cash Flows.

Mortgage loans are carried at unpaid principal balances, net of unamortized premium or discount and valuation allowances. Valuation allowances are established for impaired loans when it is probable that contractual principal and interest will not be collected.

Equity securities primarily include common stocks, exchange traded and mutual funds, non-redeemable preferred stocks and real estate investment trust equity investments. Certain exchange traded and mutual funds have fixed income securities as their underlying investments. Equity securities are carried at fair value. Equity securities without readily determinable or estimable fair values are measured using the measurement alternative, which is cost less impairment, if any, and adjustments resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer. The periodic change in fair value of equity securities is recognized within realized capital gains and losses on the Consolidated Statements of Operations and Comprehensive Income effective January 1, 2018.

Investments in limited partnership interests are primarily accounted for in accordance with the equity method of accounting ("EMA") and include interests in private equity funds, real estate funds and other funds. Investments in limited partnership interests purchased prior to January 1, 2018 where the Company's interest is so minor that it exercises virtually no influence over operating and financial policies are accounted for at fair value primarily utilizing the net asset value ("NAV") as a practical expedient to determine fair value.

Short-term investments, including money market funds, commercial paper, U.S. Treasury bills and other short-term investments, are carried at fair value. Policy loans are carried at unpaid principal balances. Other investments primarily consist of bank loans, agent loans, real estate and derivatives. Bank loans are primarily senior secured corporate loans and are carried at amortized cost. Real estate is carried at cost less accumulated depreciation. Agent loans are loans issued to exclusive Allstate agents and are carried at unpaid principal balances, net of valuation allowances and unamortized deferred fees or costs. Derivatives are carried at fair value.

Investment income primarily consists of interest, dividends, income from limited partnership interests, rental income from real estate, and income from certain derivative transactions. Interest is recognized on an accrual basis using the effective yield method and dividends are recorded at the ex-dividend date. Interest income for ABS, RMBS and CMBS is determined considering estimated pay-downs, including prepayments, obtained from third party data sources and internal estimates. Actual prepayment experience is periodically reviewed and effective yields are recalculated when differences arise between the prepayments originally anticipated and the actual prepayments received and currently anticipated. For ABS, RMBS and CMBS of high credit quality with fixed interest rates, the effective yield is recalculated on a retrospective basis. For all others, the effective yield is recalculated on a prospective basis. Accrual of income is suspended for other-than-temporarily impaired fixed income securities when the timing and amount of cash flows expected to be received is not reasonably estimable. Accrual of income is suspended for mortgage loans, bank loans and agent loans that are in default or when full and timely collection of principal and interest payments is not probable. Cash receipts on investments on nonaccrual status are generally recorded as a reduction of carrying value. Income from limited partnership interests carried at fair value is recognized based upon the changes in fair value of the investee's equity primarily determined using NAV. Income from EMA limited partnership interests is recognized based on the Company's share of the partnerships' earnings. Income from EMA limited partnership interests is generally recognized on a three month delay due to the availability of the related financial statements from investees.

Realized capital gains and losses include gains and losses on investment sales, write-downs in value due to other-than-temporary declines in fair value, adjustments to valuation allowances on mortgage loans and agent loans, valuation changes of equity investments, including equity securities and certain limited partnerships where the underlying assets are predominately public equity securities, and periodic changes in fair value and settlements of certain derivatives including hedge ineffectiveness. Realized capital gains and losses on investment sales are determined on a specific identification basis.

Derivative and embedded derivative financial instruments

Derivative financial instruments include interest rate swaps, credit default swaps, futures (interest rate and equity), options (including swaptions), interest rate caps, warrants, foreign currency swaps, foreign currency forwards, total return swaps and certain investment risk transfer reinsurance agreements. Derivatives required to be separated from the host instrument and accounted for as derivative financial instruments ("subject to bifurcation") are embedded in equity-indexed life and annuity contracts and reinsured variable annuity contracts.

All derivatives are accounted for on a fair value basis and reported as other investments, other assets, other liabilities and accrued expenses or contractholder funds. Embedded derivative instruments subject to bifurcation are also accounted for on a fair value basis and are reported together with the host contract. The change in fair value of derivatives embedded in life and annuity product contracts and subject to bifurcation is reported in contract benefits or interest credited to contractholder funds. Cash flows from embedded derivatives subject to bifurcation and derivatives receiving hedge accounting are reported consistently with the host contracts and hedged risks, respectively, within the Consolidated Statements of Cash Flows. Cash flows from other derivatives are reported in cash flows from investing activities within the Consolidated Statements of Cash Flows.

When derivatives meet specific criteria, they may be designated as accounting hedges and accounted for as fair value, cash flow, foreign currency fair value or foreign currency cash flow hedges. The hedged item may be either all or a specific portion of a recognized asset, liability or an unrecognized firm commitment attributable to a particular risk for fair value hedges. At the inception of the hedge, the Company formally documents the hedging relationship and risk management objective and strategy.

The documentation identifies the hedging instrument, the hedged item, the nature of the risk being hedged and the methodology used to assess the effectiveness of the hedging instrument in offsetting the exposure to changes in the hedged item's fair value attributable to the hedged risk. For a cash flow hedge, this documentation includes the exposure to changes in the variability in cash flows attributable to the hedged risk. The Company does not exclude any component of the change in fair value of the hedging instrument from the effectiveness assessment. At each reporting date, the Company confirms that the hedging instrument continues to be highly effective in offsetting the hedged risk. Ineffectiveness in fair value hedges and cash flow hedges, if any, is reported in realized capital gains and losses.

Fair value hedges The change in fair value of hedging instruments used in fair value hedges of investment assets or a portion thereof is reported in net investment income, together with the change in fair value of the hedged items. The change in fair value of hedging instruments used in fair value hedges of contractholder funds liabilities or a portion thereof is reported in interest credited to contractholder funds, together with the change in fair value of the hedged items. Accrued periodic settlements on swaps are reported together with the changes in fair value of the related swaps in net investment income or interest credited to contractholder funds. The amortized cost for fixed income securities, the carrying value for mortgage loans or the carrying value of a designated hedged liability is adjusted for the change in fair value of the hedged risk.

Cash flow hedges For hedging instruments used in cash flow hedges, the changes in fair value of the derivatives representing the effective portion of the hedge are reported in AOCI. Amounts are reclassified to net investment income or realized capital gains and losses as the hedged or forecasted transaction affects income. Accrued periodic settlements on derivatives used in cash flow hedges are reported in net investment income. The amount reported in AOCI for a hedged transaction is limited to the lesser of the cumulative gain or loss on the derivative less the amount reclassified to income, or the cumulative gain or loss on the derivative needed to offset the cumulative change in the expected future cash flows on the hedged transaction from inception of the hedge less the derivative gain or loss previously reclassified from AOCI to income. If the Company expects at any time that the loss reported in AOCI would lead to a net loss on the combination of the hedging instrument and the hedged transaction which may not be recoverable, a loss is recognized immediately in realized capital gains and losses. If an impairment loss is recognized on an asset or an additional obligation is incurred on a liability involved in a hedge transaction, any offsetting gain in AOCI is reclassified and reported together with the impairment loss or recognition of the obligation.

Termination of hedge accounting If, subsequent to entering into a hedge transaction, the derivative becomes ineffective (including if the hedged item is sold or otherwise extinguished, the occurrence of a hedged forecasted transaction is no longer probable or the hedged asset becomes other-than-temporarily impaired), the Company may terminate the derivative position. The Company may also terminate derivative instruments or redesignate them as non-hedge as a result of other events or circumstances. If the derivative instrument is not terminated when a fair value hedge is no longer effective, the future gains and losses recognized on the derivative are reported in realized capital gains and losses. When a fair value hedge is no longer effective, is redesignated as non-hedge or when the derivative has been terminated, the fair value gain or loss on the hedged asset, liability or portion thereof previously recognized in income while the hedge was in place and used to adjust the amortized cost of hedged fixed income securities, carrying value of hedged mortgage loans or carrying value of a hedged liability, is amortized over the remaining life of the hedged asset, liability or portion thereof, and reflected in net investment income or interest credited to contractholder funds beginning in the period that hedge accounting is no longer applied. If the hedged item in a fair value hedge is an asset that has become other-than-temporarily impaired, the adjustment made to the amortized cost for fixed income securities or the carrying value for mortgage loans is subject to the accounting policies applied to other-than-temporarily impaired assets.

When a derivative instrument used in a cash flow hedge of an existing asset or liability is no longer effective or is terminated, the gain or loss recognized on the derivative is reclassified from AOCI to income as the hedged risk impacts income. If the derivative instrument is not terminated when a cash flow hedge is no longer effective, future gains and losses recognized on the derivative are reported in realized capital gains and losses. When a derivative instrument used in a cash flow hedge of a forecasted transaction is terminated because it is probable the forecasted transaction will not occur, the gain or loss recognized on the derivative is immediately reclassified from AOCI to realized capital gains and losses in the period that hedge accounting is no longer applied.

Non-hedge derivative financial instruments For derivatives for which hedge accounting is not applied, the income statement effects, including fair value gains and losses and accrued periodic settlements, are reported either in realized capital gains and losses or in a single line item together with the results of the associated asset or liability for which risks are being managed.

Securities loaned

The Company's business activities include securities lending transactions, which are used primarily to generate net investment income. The proceeds received in conjunction with securities lending transactions are reinvested in short-term investments or fixed income securities. These transactions are short-term in nature, usually 30 days or less.

The Company receives cash collateral for securities loaned in an amount generally equal to 102% and 105% of the fair value of domestic and foreign securities, respectively, and records the related obligations to return the collateral in other liabilities and accrued expenses. The carrying value of these obligations approximates fair value because of their relatively short-term nature. The Company monitors the market value of securities loaned on a daily basis and obtains additional collateral as necessary under the terms of the agreements to mitigate counterparty credit risk. The Company maintains the right and ability to repossess the securities loaned on short notice.

Recognition of premium revenues and contract charges, and related benefits and interest credited

Traditional life insurance products consist principally of products with fixed and guaranteed premiums and benefits, primarily term and whole life insurance products. Voluntary accident and health insurance products are expected to remain in force for an extended period and therefore are primarily classified as long-duration contracts. Premiums from these products are recognized as revenue when due from policyholders. Benefits are reflected in contract benefits and recognized over the life of the policy in relation to premiums.

Immediate annuities with life contingencies, including certain structured settlement annuities, provide benefits over a period that extends beyond the period during which premiums are collected. Premiums from these products are recognized as revenue when received at the inception of the contract. Benefits and expenses are recognized in relation to premiums. Profits from these policies come primarily from investment income, which is recognized over the life of the contract.

Interest-sensitive life contracts, such as universal life and single premium life, are insurance contracts whose terms are not fixed and guaranteed. The terms that may be changed include premiums paid by the contractholder, interest credited to the contractholder account balance and contract charges assessed against the contractholder account balance. Premiums from these contracts are reported as contractholder fund deposits. Contract charges consist of fees assessed against the contractholder account balance for the cost of insurance (mortality risk), contract administration and surrender of the contract prior to contractually specified dates. These contract charges are recognized as revenue when assessed against the contractholder account balance. Contract benefits include life-contingent benefit payments in excess of the contractholder account balance.

Contracts that do not subject the Company to significant risk arising from mortality or morbidity are referred to as investment contracts. Fixed annuities, including market value adjusted annuities, equity-indexed annuities and immediate annuities without life contingencies, are considered investment contracts. Consideration received for such contracts is reported as contractholder fund deposits. Contract charges for investment contracts consist of fees assessed against the contractholder account balance for maintenance, administration and surrender of the contract prior to contractually specified dates, and are recognized when assessed against the contractholder account balance.

Interest credited to contractholder funds represents interest accrued or paid on interest-sensitive life and investment contracts. Crediting rates for certain fixed annuities and interest-sensitive life contracts are adjusted periodically by the Company to reflect current market conditions subject to contractually guaranteed minimum rates. Crediting rates for indexed life and annuities and indexed funding agreements are generally based on a specified interest rate index or an equity index, such as the Standard & Poor’s 500 Index (“S&P 500”). Interest credited also includes amortization of DSI expenses. DSI is amortized into interest credited using the same method used to amortize DAC.

Contract charges for variable life and variable annuity products consist of fees assessed against the contractholder account balances for contract maintenance, administration, mortality, expense and surrender of the contract prior to contractually specified dates. Contract benefits incurred for variable annuity products include guaranteed minimum death, income, withdrawal and accumulation benefits. Substantially all of the Company’s variable annuity business is ceded through reinsurance agreements and the contract charges and contract benefits related thereto are reported net of reinsurance ceded.

Other revenue presentation

The Company revised the presentation of total revenue to include other revenue. Previously, components of other revenue were presented within operating costs and expenses and primarily represent gross dealer concessions received in connection with Allstate exclusive agencies and exclusive financial specialists sales of non-proprietary products. Other revenue is recognized when performance obligations are fulfilled. Prior periods have been reclassified to conform to current separate presentation of other revenue.

Deferred policy acquisition and sales inducement costs

Costs that are related directly to the successful acquisition of new or renewal life insurance policies and investment contracts are deferred and recorded as DAC. These costs are principally agency’s and brokers’ remuneration and certain underwriting expenses. DSI costs, which are deferred and recorded as other assets, relate to sales inducements offered on sales to new customers, principally on fixed annuity and interest-sensitive life contracts. These sales inducements are primarily in the form of additional credits to the customer’s account balance or enhancements to interest credited for a specified period which are in excess of the rates currently being credited to similar contracts without sales inducements. All other acquisition costs are expensed as incurred and included in operating costs and expenses. Amortization of DAC is included in amortization of deferred policy acquisition costs and is described in more detail below. DSI is amortized into income using the same methodology and assumptions as DAC and is included in interest credited to contractholder funds.

For traditional life and voluntary accident and health insurance, DAC is amortized over the premium paying period of the related policies in proportion to the estimated revenues on such business. Assumptions used in the amortization of DAC and reserve calculations are established at the time the policy is issued and are generally not revised during the life of the policy. Any deviations from projected business in force resulting from actual policy terminations differing from expected levels and any estimated premium deficiencies may result in a change to the rate of amortization in the period such events occur. Generally, the amortization periods for these policies approximates the estimated lives of the policies. The Company periodically reviews the recoverability of DAC for these policies using actual experience and current assumptions. Prior to fourth quarter 2017, the Company evaluated traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. Beginning in fourth quarter 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance products are reviewed individually, consistent with the review of these products performed by The Allstate Corporation. If actual experience and current assumptions are adverse compared to the original assumptions and a premium deficiency is determined to exist, any remaining unamortized DAC balance would be expensed to the extent not recoverable and the establishment of a premium deficiency reserve may be required.

For interest-sensitive life insurance and fixed annuities, DAC and DSI are amortized in proportion to the incidence of the total present value of gross profits, which includes both actual historical gross profits ("AGP") and estimated future gross profits ("EGP") expected to be earned over the estimated lives of the contracts. The amortization is net of interest on the prior period DAC balance using rates established at the inception of the contracts. Actual amortization periods generally range from 15-30 years; however, incorporating estimates of the rate of customer surrenders, partial withdrawals and deaths generally results in the majority of the DAC being amortized during the surrender charge period, which is typically 10-20 years for interest-sensitive life and 5-10 years for fixed annuities. The rate of DAC and DSI amortization is reestimated and adjusted by a cumulative charge or credit to income when there is a difference between the incidence of actual versus expected gross profits in a reporting period or when there is a change in total EGP. When DAC or DSI amortization or a component of gross profits for a quarterly period is potentially negative (which would result in an increase of the DAC or DSI balance) as a result of negative AGP, the specific facts and circumstances surrounding the potential negative amortization are considered to determine whether it is appropriate for recognition in the consolidated financial statements. Negative amortization is only recorded when the increased DAC or DSI balance is determined to be recoverable based on facts and circumstances. Recapitalization of DAC and DSI is limited to the originally deferred costs plus interest.

AGP and EGP primarily consist of the following components: contract charges for the cost of insurance less mortality costs and other benefits; investment income and realized capital gains and losses less interest credited; and surrender and other contract charges less maintenance expenses. The principal assumptions for determining the amount of EGP are mortality, persistency, expenses, investment returns, including capital gains and losses on assets supporting contract liabilities, interest crediting rates to contractholders, and the effects of any hedges. For products whose supporting investments are exposed to capital losses in excess of the Company's expectations which may cause periodic AGP to become temporarily negative, EGP and AGP utilized in DAC and DSI amortization may be modified to exclude the excess capital losses.

The Company performs quarterly reviews of DAC and DSI recoverability for interest-sensitive life and fixed annuity contracts using current assumptions. If a change in the amount of EGP is significant, it could result in the unamortized DAC or DSI not being recoverable, resulting in a charge which is included as a component of amortization of deferred policy acquisition costs or interest credited to contractholder funds, respectively.

The DAC and DSI balances presented include adjustments to reflect the amount by which the amortization of DAC and DSI would increase or decrease if the unrealized capital gains or losses in the respective product investment portfolios were actually realized. The adjustments are recorded net of tax in AOCI. DAC, DSI and deferred income taxes determined on unrealized capital gains and losses and reported in AOCI recognize the impact on shareholder's equity consistently with the amounts that would be recognized in the income statement on realized capital gains and losses.

Customers of the Company may exchange one insurance policy or investment contract for another offered by the Company, or make modifications to an existing investment or life contract issued by the Company. These transactions are identified as internal replacements for accounting purposes. Internal replacement transactions determined to result in replacement contracts that are substantially unchanged from the replaced contracts are accounted for as continuations of the replaced contracts. Unamortized DAC and DSI related to the replaced contracts continue to be deferred and amortized in connection with the replacement contracts. For interest-sensitive life and investment contracts, the EGP of the replacement contracts are treated as a revision to the EGP of the replaced contracts in the determination of amortization of DAC and DSI. For traditional life insurance policies, any changes to unamortized DAC that result from replacement contracts are treated as prospective revisions. Any costs associated with the issuance of replacement contracts are characterized as maintenance costs and expensed as incurred. Internal replacement transactions determined to result in a substantial change to the replaced contracts are accounted for as an extinguishment of the replaced contracts, and any unamortized DAC and DSI related to the replaced contracts are eliminated with a corresponding charge to amortization of deferred policy acquisition costs or interest credited to contractholder funds, respectively.

The costs assigned to the right to receive future cash flows from certain business purchased from other insurers are also classified as DAC in the Consolidated Statements of Financial Position. The costs capitalized represent the present value of future profits expected to be earned over the lives of the contracts acquired. These costs are amortized as profits emerge over the lives of the acquired business and are periodically evaluated for recoverability. The present value of future profits was $3 million as of both December 31, 2018 and 2017. Amortization expense of the present value of future profits was $249 thousand, $232 thousand and $276 thousand in 2018, 2017 and 2016, respectively.

Reinsurance

In the normal course of business, the Company seeks to limit aggregate and single exposure to losses on large risks by purchasing reinsurance. The Company has also used reinsurance to effect the disposition of certain blocks of business. The amounts reported as reinsurance recoverables include amounts billed to reinsurers on losses paid as well as estimates of amounts expected to be recovered from reinsurers on insurance liabilities and contractholder funds that have not yet been paid. Reinsurance recoverables on unpaid losses are estimated based upon assumptions consistent with those used in establishing the liabilities related to the underlying reinsured contracts. Insurance liabilities are reported gross of reinsurance recoverables. Reinsurance premiums are generally reflected in income in a manner consistent with the recognition of premiums on the reinsured contracts. Reinsurance does not extinguish the Company's primary liability under the policies written. Therefore, the Company regularly evaluates the financial condition of its reinsurers and establishes allowances for uncollectible reinsurance as appropriate.

Income taxes

Income taxes are accounted for using the asset and liability method under which deferred tax assets and liabilities are recognized for temporary differences between the financial reporting and tax bases of assets and liabilities at the enacted tax rates. The principal assets and liabilities giving rise to such differences are insurance reserves, investments (including unrealized capital gains and losses) and DAC. A deferred tax asset valuation allowance is established when it is more likely than not such assets will not be realized. The Company recognizes interest expense related to income tax matters in income tax expense and penalties in operating costs and expenses.

Reserve for life-contingent contract benefits

The reserve for life-contingent contract benefits payable under insurance policies, including traditional life insurance, life-contingent immediate annuities and voluntary accident and health insurance products, is computed on the basis of long-term actuarial assumptions of future investment yields, mortality, morbidity, policy terminations and expenses. These assumptions, which for traditional life insurance are applied using the net level premium method, include provisions for adverse deviation and generally vary by characteristics such as type of coverage, year of issue and policy duration. The assumptions are established at the time the policy is issued and are generally not changed during the life of the policy. The Company periodically reviews the adequacy of reserves for these policies using actual experience and current assumptions. If actual experience and current assumptions are adverse compared to the original assumptions and a premium deficiency is determined to exist, any remaining unamortized DAC balance would be expensed to the extent not recoverable and the establishment of a premium deficiency reserve may be required. Prior to fourth quarter 2017, the Company evaluated traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. Beginning in fourth quarter 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance are reviewed individually, consistent with the review of these products performed by The Allstate Corporation. The Company also reviews these policies for circumstances where projected profits would be recognized in early years followed by projected losses in later years. If this circumstance exists, the Company will accrue a liability, during the period of profits, to offset the losses at such time as the future losses are expected to commence using a method updated prospectively over time. To the extent that unrealized gains on fixed income securities would result in a premium deficiency if those gains were realized, the related increase in reserves for certain immediate annuities with life contingencies is recorded net of tax as a reduction of unrealized net capital gains included in AOCI.

Contractholder funds

Contractholder funds represent interest-bearing liabilities arising from the sale of products such as interest-sensitive life insurance, fixed annuities and funding agreements. Contractholder funds primarily comprise cumulative deposits received and interest credited to the contractholder less cumulative contract benefits, surrenders, withdrawals, maturities and contract charges for mortality or administrative expenses. Contractholder funds also include reserves for secondary guarantees on interest-sensitive life insurance and certain fixed annuity contracts and reserves for certain guarantees on reinsured variable annuity contracts.

Separate accounts

Separate accounts assets are carried at fair value. The assets of the separate accounts are legally segregated and available only to settle separate accounts contract obligations. Separate accounts liabilities represent the contractholders' claims to the related assets and are carried at an amount equal to the separate accounts assets. Investment income and realized capital gains and losses of the separate accounts accrue directly to the contractholders and therefore are not included in the Company's

Consolidated Statements of Operations and Comprehensive Income. Deposits to and surrenders and withdrawals from the separate accounts are reflected in separate accounts liabilities and are not included in consolidated cash flows.

Absent any contract provision wherein the Company provides a guarantee, variable annuity and variable life insurance contractholders bear the investment risk that the separate accounts' funds may not meet their stated investment objectives. Substantially all of the Company's variable annuity business was reinsured beginning in 2006.

Off-balance sheet financial instruments

Commitments to invest, commitments to purchase private placement securities, commitments to extend loans, financial guarantees and credit guarantees have off-balance sheet risk because their contractual amounts are not recorded in the Company's Consolidated Statements of Financial Position (see Note 7 and Note 11).

Consolidation of variable interest entities ("VIEs")

The Company consolidates VIEs when it is the primary beneficiary. A primary beneficiary is the variable interest holder in a VIE with both the power to direct the activities of the VIE that most significantly impact the economic performance of the VIE and the obligation to absorb losses, or the right to receive benefits, that could potentially be significant to the VIE.

Adopted accounting standard

Recognition and Measurement of Financial Assets and Financial Liabilities

Effective January 1, 2018, the Company adopted new FASB guidance requiring equity investments, including equity securities and limited partnership interests not accounted for under the equity method of accounting or that do not result in consolidation to be measured at fair value with changes in fair value recognized in net income. The guidance clarifies that an entity should evaluate the realizability of deferred tax assets related to available-for-sale fixed income securities in combination with the entity's other deferred tax assets. The Company's adoption of the new FASB guidance included adoption of the relevant elements of Technical Corrections and Improvements to Financial Instruments, issued in February 2018.

Upon adoption of the new guidance on January 1, 2018, $308 million of pre-tax unrealized net capital gains for equity securities were reclassified from AOCI to retained income. The after-tax change in accounting for equity securities did not affect the Company's total shareholder's equity and the unrealized net capital gains of $238 million reclassified to retained income will never be recognized in net income.

Upon adoption of the new guidance on January 1, 2018, the carrying value of cost method limited partnership interests increased $95 million, pre-tax, to fair value. The after-tax cumulative-effect increase in retained income of $76 million increased the Company's shareholder's equity but will never be recognized in net income.

Pending accounting standards

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued guidance which revises the credit loss recognition criteria for certain financial assets measured at amortized cost, including reinsurance recoverables. The new guidance replaces the existing incurred loss recognition model with an expected loss recognition model. The objective of the expected credit loss model is for the reporting entity to recognize its estimate of expected credit losses for affected financial assets in a valuation allowance deducted from the amortized cost basis of the related financial assets that results in presenting the net carrying value of the financial assets at the amount expected to be collected. The reporting entity must consider all relevant information available when estimating expected credit losses, including details about past events, current conditions, and reasonable and supportable forecasts over the life of an asset. Financial assets may be evaluated individually or on a pooled basis when they share similar risk characteristics. The measurement of credit losses for available-for-sale debt securities measured at fair value is not affected except that credit losses recognized are limited to the amount by which fair value is below amortized cost and the carrying value adjustment is recognized through a valuation allowance and not as a direct write-down. The guidance is effective for reporting periods beginning after December 15, 2019, and for most affected instruments must be adopted using a modified retrospective approach, with a cumulative effect adjustment recorded to beginning retained income. The Company is in the process of evaluating the impact of adoption.

Accounting for Hedging Activities

In August 2017, the FASB issued amendments intended to better align hedge accounting with an organization's risk management activities. The amendments expand hedge accounting for nonfinancial and financial risk components and revise the measurement methodologies to better align with an organization's risk management activities. Separate presentation of hedge ineffectiveness is eliminated to provide greater transparency of the full impact of hedging by requiring presentation of the results of the hedged item and hedging instrument in a single financial statement line item. In addition, the amendments are designed to reduce complexity by simplifying the manner in which assessments of hedge effectiveness may be performed. The guidance is effective for reporting periods beginning after December 15, 2018. The presentation and disclosure guidance is effective on a prospective basis. The impact of adoption is not expected to be material to the Company's results of operations or financial position.

Accounting for Long-Duration Insurance Contracts

In August 2018, the FASB issued guidance revising the accounting for certain long-duration insurance contracts. The new guidance changes the measurement of the Company's reserves for traditional life, life-contingent immediate annuities and certain voluntary accident and health insurance products. Under the new guidance, measurement assumptions, including those for mortality, morbidity and policy terminations, will be required to be reviewed and updated at least annually. The effect of updating measurement assumptions other than the discount rate are required to be determined on a retrospective basis and reported in net income. In addition, cash flows under the new guidance are required to be discounted using an upper medium grade fixed income instrument yield that is updated through OCI at each reporting date. These changes will replace current GAAP, which utilizes assumptions set at policy issuance until such time as the assumptions result in reserves that are deficient when compared to reserves computed using current assumptions. Under current GAAP, premium deficiency reserves are recognized in the amount of the deficiency, if any, computed using current assumptions.

The new guidance requires DAC and other capitalized balances currently amortized in proportion to premiums or gross profits to be amortized on a constant level basis over the expected term for all long-duration insurance contracts. DAC will not be subject to loss recognition testing but will be reduced when actual experience exceeds expected experience (i.e. as a result of unexpected contract terminations). The new guidance will no longer require adjustments to DAC and DSI related to unrealized gains and losses on investment securities supporting the related business.

Market risk benefit product features are required to be measured at fair value with changes in fair value recorded in net income with the exception of changes in the fair value attributable to changes in the Company's own credit risk, which are required to be recognized in OCI. Substantially all of the Company's market risk benefits are reinsured and therefore these impacts are not expected to be material to the Company.

The new guidance is to be included in the comparable financial statements issued in reporting periods beginning after December 15, 2020, thereby requiring restatement of prior periods presented. Early adoption is permitted. The new guidance will be applied to affected contracts and DAC on the basis of existing carrying amounts at the earliest period presented or it may be applied retrospectively using actual historical experience as of contract inception. The new guidance for market risk benefits is required to be adopted retrospectively.

The Company is evaluating the anticipated impacts of applying the new guidance to both retained income and AOCI. While the requirements of the new guidance represent a material change from existing GAAP, the underlying economics of the business and related cash flows are unchanged. The Company has not completed its evaluation of the specific impacts of adopting the new guidance, but anticipates the financial statement impact of migrating from existing GAAP to that required by the new guidance to be material, largely attributed to the impact of transitioning from an original investment-based discount rate to one based on an upper-medium grade fixed income investment yield and updates to mortality assumptions that had previously been locked in at issuance. The Company expects the most significant impacts will occur within the life-contingent immediate annuity products. The revised accounting for DAC will be applied prospectively using the new model and any DAC effects existing in AOCI as a result of applying existing GAAP at the date of adoption will be reversed.

3. Supplemental Cash Flow Information

Non-cash investing activities include \$43 million, \$51 million and \$117 million related to mergers and exchanges completed with equity securities, fixed income securities and limited partnerships, and modifications of certain mortgage loans and other investments in 2018, 2017 and 2016, respectively. Non-cash financing activities also included \$34 million related to debt acquired in conjunction with the purchase of an investment in 2016.

The Company had two non-cash financing activities related to surplus note transactions. In 2017, the Company redeemed \$325 million of surplus notes due to Kennett Capital, Inc. ("Kennett"), an unconsolidated affiliate of ALIC. In connection with the redemption, the related \$325 million of notes due from Kennett (recorded as other investments) were extinguished. In 2016, the Company transferred to Kennett a \$50 million surplus note issued by a consolidated subsidiary in exchange for a note receivable with a principal sum equal to that of the surplus note.

Liabilities for collateral received in conjunction with the Company's securities lending program were \$517 million, \$539 million and \$545 million as of December 31, 2018, 2017 and 2016, respectively, and are reported in other liabilities and accrued expenses. Obligations to return cash collateral for over-the-counter ("OTC") and cleared derivatives were \$8 million, \$3 million and \$5 million as of December 31, 2018, 2017 and 2016, respectively, and are reported in other liabilities and accrued expenses or other investments.

The accompanying cash flows are included in cash flows from operating activities in the Consolidated Statements of Cash Flows along with the activities resulting from management of the proceeds, which for the years ended December 31 are as follows:

($ in millions)	2018	2017	2016
Net change in proceeds managed			
Net change in fixed income securities	$ 94	$ 149	$ (277)
Net change in short-term investments	(77)	(142)	277
Operating cash flow provided	17	7	—
Net change in cash	—	1	—
Net change in proceeds managed	$ 17	$ 8	$ —
Net change in liabilities			
Liabilities for collateral, beginning of year	$ (542)	$ (550)	$ (550)
Liabilities for collateral, end of year	(525)	(542)	(550)
Operating cash flow (used) provided	$ (17)	$ (8)	$ —

4. Related Party Transactions

Business operations

The Company uses services performed by AIC and other affiliates, and business facilities owned or leased and operated by AIC in conducting its business activities. In addition, the Company shares the services of employees with AIC. The Company reimburses its affiliates for the operating expenses incurred on behalf of the Company. The Company is charged for the cost of these operating expenses based on the level of services provided. Operating expenses, including compensation, retirement and other benefit programs (see Note 15), allocated to the Company were $235 million, $243 million and $225 million in 2018, 2017 and 2016, respectively.

Agent loan sale and securitization

On December 22, 2016, ALIC's subsidiary Allstate Finance Company, LLC ("AFC") sold agent loans with a fair value of $419 million to affiliate Allstate Finance Company Agency Loans LLC ("AFCAL") and AFCAL used the loans as collateral in the issuance of notes. Investors in the notes were as follows:

($ in millions)	
Class A Notes Due March 10, 2034	
Allstate New Jersey Insurance Company	$ 77
American Heritage Life Insurance Company	37
Allstate Assurance Company	19
First Colonial Insurance Company	7
Subtotal - Class A	140
Class B Deferrable Notes Due March 10, 2034	
Allstate Life Insurance Company	140
Class C Deferrable Notes Due March 10, 2034	
Allstate Life Insurance Company	110
Subordinated Notes Due March 10, 2034	
Allstate Life Insurance Company	29
Total	$ 419

AFCAL is a VIE and ALIC is the primary beneficiary since ALIC has control over the significant activities of AFCAL, the obligation to absorb significant losses and the rights to residual returns. Therefore, AFCAL is included in ALIC's consolidated financial statements. Transactions between ALIC, AFC and AFCAL are eliminated in consolidation. The Company's Consolidated Statements of Financial Position included $407 million of agent loans, $2 million of cash and $140 million of notes due to related parties as of December 31, 2018 associated with AFCAL. The Company's Consolidated Statements of Financial Position included $409 million of agent loans, $13 million of cash and $140 million of notes due to related parties as of December 31, 2017 associated with AFCAL.

The $140 million of notes due to related parties include the Class A Notes due March 10, 2034 that were sold to Allstate New Jersey Insurance Company, American Heritage Life Insurance Company, Allstate Assurance Company ("AAC") and First Colonial Insurance Company. These notes have an annual interest rate of 3.25%. The Company incurred interest expense related to these notes of $5 million in both 2018 and 2017 and $113 thousand in 2016.

Reinsurance

The Company has coinsurance reinsurance agreements with its unconsolidated affiliate American Heritage Life Insurance Company ("AHL") whereby the Company assumes certain interest-sensitive life insurance, fixed annuity contracts and accident and health insurance policies. The amounts assumed are disclosed in Note 9.

Effective January 1, 2017, ALIC entered into a coinsurance reinsurance agreement with AAC to assume certain term life insurance policies. In connection with the agreement, the Company recorded cash of $20 million, DAC of $45 million, other assets of $11 million, reserve for life-contingent contract benefits of $24 million and deferred tax liabilities of $18 million. The $34 million gain on the transaction was recorded as an increase to additional capital paid-in since the transaction was between entities under common control.

ALIC enters into certain intercompany reinsurance transactions with its wholly owned subsidiaries. ALIC enters into these transactions in order to maintain underwriting control and spread risk among various legal entities. These reinsurance agreements have been approved by the appropriate regulatory authorities. All significant intercompany transactions have been eliminated in consolidation.

Broker-Dealer agreement

The Company receives distribution services from Allstate Financial Services, LLC, an affiliated broker-dealer company, for certain annuity and variable life insurance contracts sold by Allstate exclusive agencies and exclusive financial specialists. For these services, the Company incurred commission and other distribution expenses of $3 million, $9 million and $9 million of 2018, 2017 and 2016, respectively.

Structured settlement annuities

The Company previously issued structured settlement annuities, a type of immediate annuity, to fund structured settlements in matters involving AIC. In most cases, these annuities were issued under a "qualified assignment" whereby Allstate Assignment Company and prior to July 1, 2001 Allstate Settlement Corporation ("ASC"), both wholly owned subsidiaries of ALIC, purchased annuities from ALIC and assumed AIC's obligation to make future payments.

AIC issued surety bonds to guarantee the payment of structured settlement benefits assumed by ASC (from both AIC and non-related parties) and funded by certain annuity contracts issued by the Company through June 30, 2001. ASC entered into a General Indemnity Agreement pursuant to which it indemnified AIC for any liabilities associated with the surety bonds and gave AIC certain collateral security rights with respect to the annuities and certain other rights in the event of any defaults covered by the surety bonds. ALIC guaranteed the payment of structured settlement benefits on all contracts issued on or after July 1, 2001. Reserves recorded by the Company for annuities that are guaranteed by the surety bonds of AIC were $4.59 billion and $4.63 billion as of December 31, 2018 and 2017, respectively.

Income taxes

The Company is a party to a federal income tax allocation agreement with the Corporation (see Note 12).

Surplus notes

On December 2, 2016, the Company purchased for cash a $40 million 3.07% surplus note due December 2, 2036 that was issued by AAC. No payment of principal or interest is permitted on the surplus note without the written approval from the proper regulatory authority. The regulatory authority could prohibit the payment of interest and principal on the surplus notes if certain statutory capital requirements are not met. The surplus note is classified as fixed income securities on the Consolidated Statements of Financial Position. The Company recorded investment income on this surplus note of $1 million in both 2018 and 2017 and $99 thousand in 2016.

The Company incurred interest expense related to the $325 million surplus notes due to Kennett of $15 million in 2016. The surplus notes were redeemed in 2017.

Liquidity and intercompany loan agreements

The Company is party to an Amended and Restated Intercompany Liquidity Agreement ("Liquidity Agreement") with certain of its affiliates, which include, but are not limited to, AIC, AAC and the Corporation. The Liquidity Agreement allows for short-term advances of funds to be made between parties for liquidity and other general corporate purposes. The Liquidity Agreement does not establish a commitment to advance funds on the part of any party. The Company and AIC each serve as a lender and borrower, AAC and certain other affiliates serve only as borrowers, and the Corporation serves only as a lender. The maximum amount of advances each party may make or receive is limited to $1 billion. Netting or offsetting of advances made and received is not permitted. Advances between the parties are required to have specified due dates less than or equal to 364 days from the date of the advance and be payable upon demand by written request from the lender at least 10 business days prior to the demand date. The borrower may make prepayments of the outstanding principal balance of an advance without penalty. Advances will bear interest equal to or greater than the rate applicable to 30-day commercial paper issued by the Corporation on the date the advance is made with an adjustment on the first day of each month thereafter. The Company had no amounts outstanding under the Liquidity Agreement as of December 31, 2018 or 2017.

In addition to the Liquidity Agreement, the Company has an intercompany loan agreement with the Corporation. The amount of intercompany loans available to the Company is at the discretion of the Corporation. The maximum amount of loans the Corporation will have outstanding to all its eligible subsidiaries at any given point in time is limited to $1 billion. The Corporation may use commercial paper borrowings, bank lines of credit and securities lending to fund intercompany borrowings. The Company had no amounts outstanding under the intercompany loan agreement as of December 31, 2018 or 2017.

Road Bay Investments, LLC ("RBI"), a consolidated subsidiary of ALIC, has a Revolving Loan Credit Agreement ("Credit Agreement") with AHL, according to which AHL agreed to extend revolving credit loans to RBI. As security for its obligations under the Credit Agreement, RBI entered into a Pledge and Security Agreement with AHL, according to which RBI agreed to grant a pledge of and security interest in RBI's right, title, and interest in certain assets of RBI. The Company had no amounts outstanding under the Credit Agreement as of December 31, 2018 or 2017.

Capital support agreement

The Company has a capital support agreement with AIC. Under the terms of this agreement, AIC agrees to provide capital to maintain the amount of statutory capital and surplus necessary to maintain a company action level risk-based capital ("RBC") ratio of at least 150%. AIC's obligation to provide capital to the Company under the agreement is limited to an aggregate amount of $1 billion. In exchange for providing this capital, the Company will pay AIC an annual commitment fee of 1% of the amount of the Capital and Surplus maximum that remains available on January 1 of such year. The Company or AIC have the right to terminate this agreement when: 1) the Company qualifies for a financial strength rating from S&P's, Moody's or A.M. Best, without giving weight to the existence of this agreement, that is the same or better than its rating with such support; 2) the Company's RBC ratio is at least 300%; or 3) AIC no longer directly or indirectly owns at least 50% of the voting stock of the Company. During 2018 and 2017, no capital had been provided by AIC under this agreement.

External financing agreement

In January 2017, ALIC Reinsurance Company ("ALIC Re"), a wholly owned subsidiary of the Company, entered into a master transaction agreement with Bueller Financing LLC ("Bueller"), an external financing provider. In accordance with the agreement, Bueller issued a variable funding puttable note ("credit-linked note") that is held in a trust. The credit-linked note can be put back to Bueller for cash in the event certain ALIC Re statutory reserves and capital are depleted. The balance of the credit-linked note will vary based on the statutory reserve balance with a maximum value of $1.75 billion. The impacts of the agreement are eliminated in consolidation and have no impact on the Consolidated Statements of Financial Position.

Dividends

The Company paid dividends of $250 million and $600 million to AIC in the form of cash in 2018 and 2017, respectively.

5. Investments

Fair values

The amortized cost, gross unrealized gains and losses and fair value for fixed income securities are as follows:

($ in millions)		Gross unrealized		
	Amortized cost	Gains	Losses	Fair value
December 31, 2018				
U.S. government and agencies	$ 740	$ 33	$ —	$ 773
Municipal	1,997	202	(4)	2,195
Corporate	17,521	433	(381)	17,573
Foreign government	170	9	—	179
ABS	429	3	(3)	429
RMBS	154	44	(1)	197
CMBS	33	7	—	40
Redeemable preferred stock	13	1	—	14
Total fixed income securities	$ 21,057	$ 732	$ (389)	$ 21,400
December 31, 2017				
U.S. government and agencies	$ 768	$ 38	$ (2)	$ 804
Municipal	2,001	275	(3)	2,273
Corporate	18,262	960	(86)	19,136
Foreign government	279	20	—	299
ABS	383	6	(4)	385
RMBS	205	49	(1)	253
CMBS	93	6	(2)	97
Redeemable preferred stock	13	1	—	14
Total fixed income securities	$ 22,004	$ 1,355	$ (98)	$ 23,261

Scheduled maturities

The scheduled maturities for fixed income securities are as follows as of December 31, 2018:

($ in millions)	Amortized cost	Fair value
Due in one year or less	$ 1,193	$ 1,205
Due after one year through five years	8,135	8,207
Due after five years through ten years	7,220	7,132
Due after ten years	3,893	4,190
	20,441	20,734
ABS, RMBS and CMBS	616	666
Total	$ 21,057	$ 21,400

Actual maturities may differ from those scheduled as a result of calls and make-whole payments by the issuers. ABS, RMBS and CMBS are shown separately because of the potential for prepayment of principal prior to contractual maturity dates.

Net investment income

Net investment income for the years ended December 31 is as follows:

($ in millions)	2018	2017	2016
Fixed income securities	$ 991	$ 1,058	$ 1,078
Mortgage loans	188	182	193
Equity securities	39	48	40
Limited partnership interests [1][2]	327	457	292
Short-term investments	21	9	5
Policy loans	31	31	32
Other	91	79	90
Investment income, before expense	1,688	1,864	1,730
Investment expense	(103)	(87)	(71)
Net investment income	$ 1,585	$ 1,777	$ 1,659

[1] Due to the adoption of the recognition and measurement accounting standard on January 1, 2018, limited partnerships previously reported using the cost method are now reported at fair value with changes in fair value recognized in net investment income.

[2] Includes net investment income of $213 million for EMA limited partnership interests and $114 million for limited partnership interests carried at fair value for 2018.

Realized capital gains and losses

Realized capital gains (losses) by asset type for the years ended December 31 are as follows:

($ in millions)	2018	2017	2016
Fixed income securities	$ (40)	$ (6)	$ (59)
Mortgage loans	2	1	—
Equity securities	(124)	21	(22)
Limited partnership interests	(22)	46	(5)
Derivatives	10	(16)	8
Other	(1)	3	1
Realized capital gains (losses)	$ (175)	$ 49	$ (77)

Realized capital gains (losses) by transaction type for the years ended December 31 are as follows:

($ in millions)	2018	2017	2016
Impairment write-downs [1]	$ (9)	$ (41)	$ (101)
Change in intent write-downs [1]	—	(4)	(12)
Net OTTI losses recognized in earnings	(9)	(45)	(113)
Sales [1]	(27)	110	31
Valuation of equity investments [1][2]	(146)	—	—
Valuation and settlements of derivative instruments	7	(16)	5
Realized capital gains (losses)	$ (175)	$ 49	$ (77)

[1] Due to the adoption of the recognition and measurement accounting standard, equity securities are reported at fair value with changes in fair value recognized in valuation of equity investments and are no longer included in impairment write-downs, change in intent write-downs and sales.

[2] Includes valuation of equity securities and certain limited partnership interests where the underlying assets are predominately public equity securities.

Gross gains of $34 million and gross losses of $66 million were realized on sales of fixed income securities during 2018. Gross gains of $134 million and $184 million and gross losses of $86 million and $171 million were realized on sales of fixed income and equity securities during 2017 and 2016, respectively.

The following table presents the net pre-tax appreciation (decline) during 2018 of equity securities and limited partnership interests carried at fair value still held as of December 31, 2018, recognized in net income.

($ in millions)	For the year ended December 31, 2018
Equity securities	$ (78)
Limited partnership interests carried at fair value	113
Total	$ 35

OTTI losses by asset type for the years ended December 31 are as follows:

($ in millions)	2018			2017			2016		
	Gross	Included in OCI	Net	Gross	Included in OCI	Net	Gross	Included in OCI	Net
Fixed income securities:									
Municipal	$ —	$ —	$ —	$ (1)	$ —	$ (1)	$ —	$ —	$ —
Corporate	(1)	—	(1)	(7)	3	(4)	(23)	6	(17)
ABS	—	(1)	(1)	(1)	(1)	(2)	(4)	—	(4)
RMBS	(1)	—	(1)	—	(2)	(2)	—	(1)	(1)
CMBS	(4)	(1)	(5)	(9)	1	(8)	(15)	2	(13)
Total fixed income securities	(6)	(2)	(8)	(18)	1	(17)	(42)	7	(35)
Mortgage loans	—	—	—	(1)	—	(1)	—	—	—
Equity securities [(1)]	—	—	—	(16)	—	(16)	(59)	—	(59)
Limited partnership interests [(1)]	—	—	—	(9)	—	(9)	(15)	—	(15)
Other	(1)	—	(1)	(2)	—	(2)	(4)	—	(4)
OTTI losses	$ (7)	$ (2)	$ (9)	$ (46)	$ 1	$ (45)	$ (120)	$ 7	$ (113)

(1) Due to the adoption of the recognition and measurement accounting standard on January 1, 2018, equity securities and limited partnerships previously reported using the cost method are now reported at fair value with changes in fair value recognized in net income and are no longer included in the table above.

The total amount of OTTI losses included in AOCI at the time of impairment for fixed income securities, which were not included in earnings, are presented in the following table. The amounts exclude $101 million and $113 million as of December 31, 2018 and 2017, respectively, of net unrealized gains related to changes in valuation of the fixed income securities subsequent to the impairment measurement date.

($ in millions)	December 31, 2018	December 31, 2017
Municipal	$ (4)	$ (4)
Corporate	(1)	—
ABS	(5)	(8)
RMBS	(32)	(37)
CMBS	(2)	(4)
Total	$ (44)	$ (53)

Rollforwards of the cumulative credit losses recognized in earnings for fixed income securities held as of December 31 are as follows:

($ in millions)	2018	2017	2016
Beginning balance	$ (138)	$ (176)	$ (200)
Additional credit loss for securities previously other-than-temporarily impaired	(7)	(9)	(16)
Additional credit loss for securities not previously other-than-temporarily impaired	(1)	(8)	(19)
Reduction in credit loss for securities disposed or collected	22	54	58
Change in credit loss due to accretion of increase in cash flows	1	1	1
Ending balance	$ (123)	$ (138)	$ (176)

The Company uses its best estimate of future cash flows expected to be collected from the fixed income security, discounted at the security's original or current effective rate, as appropriate, to calculate a recovery value and determine whether a credit loss exists. The determination of cash flow estimates is inherently subjective and methodologies may vary depending on facts and circumstances specific to the security. All reasonably available information relevant to the collectability of the security, including past events, current conditions, and reasonable and supportable assumptions and forecasts, are considered when developing the estimate of cash flows expected to be collected. That information generally includes, but is not limited to, the remaining payment terms of the security, prepayment speeds, foreign exchange rates, the financial condition and future earnings potential of the issue or issuer, expected defaults, expected recoveries, the value of underlying collateral, vintage, geographic concentration of underlying collateral, available reserves or escrows, current subordination levels, third party guarantees and other credit enhancements. Other information, such as industry analyst reports and forecasts, sector credit ratings, financial condition of the bond insurer for insured fixed income securities, and other market data relevant to the realizability of contractual cash flows, may also be considered. The estimated fair value of collateral will be used to estimate recovery value if the Company determines that the security is dependent on the liquidation of collateral for ultimate settlement. If the estimated recovery value is less than the amortized cost of the security, a credit loss exists and an OTTI for the difference between the estimated recovery value and amortized cost is recorded in earnings.

The portion of the unrealized loss related to factors other than credit remains classified in AOCI. If the Company determines that the fixed income security does not have sufficient cash flow or other information to estimate a recovery value for the security, the Company may conclude that the entire decline in fair value is deemed to be credit related and the loss is recorded in earnings.

Unrealized net capital gains and losses

Unrealized net capital gains and losses included in AOCI are as follows:

($ in millions)		Gross unrealized		
December 31, 2018	Fair value	Gains	Losses	Unrealized net gains (losses)
Fixed income securities	$ 21,400	$ 732	$ (389)	$ 343
Short-term investments	810	—	—	—
Derivative instruments	—	—	—	—
EMA limited partnerships [1]				—
Unrealized net capital gains and losses, pre-tax				343
Amounts recognized for:				
Insurance reserves [2]				—
DAC and DSI [3]				(35)
Amounts recognized				(35)
Deferred income taxes				(65)
Unrealized net capital gains and losses, after-tax				$ 243

[1] Unrealized net capital gains and losses for limited partnership interests represent the Company's share of EMA limited partnerships' other comprehensive income. Fair value and gross unrealized gains and losses are not applicable.

[2] The insurance reserves adjustment represents the amount by which the reserve balance would increase if the net unrealized gains in the applicable product portfolios were realized and reinvested at lower interest rates, resulting in a premium deficiency. This adjustment primarily relates to structured settlement annuities with life contingencies (a type of immediate fixed annuities).

[3] The DAC and DSI adjustment balance represents the amount by which the amortization of DAC and DSI would increase or decrease if the unrealized gains or losses in the respective product portfolios were realized.

($ in millions)		Gross unrealized		
December 31, 2017	Fair value	Gains	Losses	Unrealized net gains (losses)
Fixed income securities	$ 23,261	$ 1,355	$ (98)	$ 1,257
Equity securities	1,614	311	(3)	308
Short-term investments	725	—	—	—
Derivative instruments [1]	2	2	—	2
EMA limited partnerships				1
Unrealized net capital gains and losses, pre-tax				1,568
Amounts recognized for:				
Insurance reserves				(315)
DAC and DSI				(189)
Amounts recognized				(504)
Deferred income taxes				(229)
Unrealized net capital gains and losses, after-tax				$ 835

[1] Included in the fair value of derivative instruments is $2 million classified as liabilities.

Change in unrealized net capital gains and losses

The change in unrealized net capital gains and losses for the years ended December 31 is as follows:

($ in millions)	2018	2017	2016
Fixed income securities	$ (914)	$ 147	$ 251
Equity securities [1]	—	226	66
Derivative instruments	(2)	(3)	(5)
EMA limited partnerships	(1)	3	—
Total	(917)	373	312
Amounts recognized for:			
Insurance reserves	315	(315)	—
DAC and DSI	154	(49)	(78)
Amounts recognized	469	(364)	(78)
Deferred income taxes	94	145	(81)
(Decrease) increase in unrealized net capital gains and losses, after-tax	$ (354)	$ 154	$ 153

[1] Upon adoption of the recognition and measurement accounting standard on January 1, 2018, $308 million of pre-tax unrealized net capital gains for equity securities were reclassified from AOCI to retained income. See Note 2 for further details.

Portfolio monitoring

The Company has a comprehensive portfolio monitoring process to identify and evaluate each fixed income security whose carrying value may be other-than-temporarily impaired.

For each fixed income security in an unrealized loss position, the Company assesses whether management with the appropriate authority has made the decision to sell or whether it is more likely than not the Company will be required to sell the security before recovery of the amortized cost basis for reasons such as liquidity, contractual or regulatory purposes. If a security meets either of these criteria, the security's decline in fair value is considered other than temporary and is recorded in earnings.

If the Company has not made the decision to sell the fixed income security and it is not more likely than not the Company will be required to sell the fixed income security before recovery of its amortized cost basis, the Company evaluates whether it expects to receive cash flows sufficient to recover the entire amortized cost basis of the security. The Company calculates the estimated recovery value by discounting the best estimate of future cash flows at the security's original or current effective rate, as appropriate, and compares this to the amortized cost of the security. If the Company does not expect to receive cash flows sufficient to recover the entire amortized cost basis of the fixed income security, the credit loss component of the impairment is recorded in earnings, with the remaining amount of the unrealized loss related to other factors recognized in other comprehensive income.

The Company's portfolio monitoring process includes a quarterly review of all securities to identify instances where the fair value of a security compared to its amortized cost is below established thresholds. The process also includes the monitoring of other impairment indicators such as ratings, ratings downgrades and payment defaults. The securities identified, in addition to other securities for which the Company may have a concern, are evaluated for potential OTTI using all reasonably available information relevant to the collectability or recovery of the security. Inherent in the Company's evaluation of OTTI for these securities are assumptions and estimates about the financial condition and future earnings potential of the issue or issuer. Some of the factors that may be considered in evaluating whether a decline in fair value is other than temporary are: 1) the financial condition, near-term and long-term prospects of the issue or issuer, including relevant industry specific market conditions and trends, geographic location and implications of rating agency actions and offering prices; 2) the specific reasons that a security is in an unrealized loss position, including overall market conditions which could affect liquidity; and 3) the length of time and extent to which the fair value has been less than amortized cost.

The following table summarizes the gross unrealized losses and fair value of fixed income and equity securities by the length of time that individual securities have been in a continuous unrealized loss position.

($ in millions)	Less than 12 months			12 months or more			Total unrealized losses
	Number of issues	Fair value	Unrealized losses	Number of issues	Fair value	Unrealized losses	
December 31, 2018							
Fixed income securities							
U.S. government and agencies	2	$ 6	$ —	1	$ 1	$ —	$ —
Municipal	38	98	(1)	5	26	(3)	(4)
Corporate	1,260	6,799	(218)	370	2,633	(163)	(381)
ABS	30	167	(1)	11	31	(2)	(3)
RMBS	124	11	—	47	10	(1)	(1)
CMBS	3	7	—	2	—	—	—
Redeemable preferred stock	1	—	—	—	—	—	—
Total fixed income securities	1,458	$ 7,088	$ (220)	436	$ 2,701	$ (169)	$ (389)
Investment grade fixed income securities	948	$ 5,255	$ (121)	388	$ 2,551	$ (147)	$ (268)
Below investment grade fixed income securities	510	1,833	(99)	48	150	(22)	(121)
Total fixed income securities	1,458	$ 7,088	$ (220)	436	$ 2,701	$ (169)	$ (389)
December 31, 2017							
Fixed income securities							
U.S. government and agencies	17	$ 443	$ (2)	2	$ 25	$ —	$ (2)
Municipal	4	14	—	1	11	(3)	(3)
Corporate	456	2,899	(28)	144	1,324	(58)	(86)
ABS	33	170	(1)	8	24	(3)	(4)
RMBS	70	3	—	56	18	(1)	(1)
CMBS	2	1	—	6	23	(2)	(2)
Redeemable preferred stock	1	—	—	—	—	—	—
Total fixed income securities	583	3,530	(31)	217	1,425	(67)	(98)
Equity securities	87	66	(3)	1	—	—	(3)
Total fixed income and equity securities	670	$ 3,596	$ (34)	218	$ 1,425	$ (67)	$ (101)
Investment grade fixed income securities	472	$ 3,192	$ (22)	181	$ 1,320	$ (52)	$ (74)
Below investment grade fixed income securities	111	338	(9)	36	105	(15)	(24)
Total fixed income securities	583	$ 3,530	$ (31)	217	$ 1,425	$ (67)	$ (98)

As of December 31, 2018, $358 million of the $389 million unrealized losses are related to securities with an unrealized loss position less than 20% of amortized cost, the degree of which suggests that these securities do not pose a high risk of being other-than-temporarily impaired. Of the $358 million, $252 million are related to unrealized losses on investment grade fixed income securities. Of the remaining $106 million, $93 million have been in an unrealized loss position for less than 12 months. Investment grade is defined as a security having a rating of Aaa, Aa, A or Baa from Moody's, a rating of AAA, AA, A or BBB from S&P Global Ratings ("S&P"), a comparable rating from another nationally recognized rating agency, or a comparable internal rating if an externally provided rating is not available. Market prices for certain securities may have credit spreads which imply higher or lower credit quality than the current third party rating. Unrealized losses on investment grade securities are principally related to an increase in market yields which may include increased risk-free interest rates and/or wider credit spreads since the time of initial purchase. The unrealized losses are expected to reverse as the securities approach maturity.

As of December 31, 2018, the remaining $31 million of unrealized losses are related to securities in unrealized loss positions greater than or equal to 20% of amortized cost. Investment grade fixed income securities comprising $16 million of these unrealized losses were evaluated based on factors such as discounted cash flows and the financial condition and near-term and long-term prospects of the issue or issuer and were determined to have adequate resources to fulfill contractual obligations. Of the $31 million, $15 million are related to below investment grade fixed income securities. Of these amounts, $2 million are related to below investment grade fixed income securities that had been in an unrealized loss position greater than or equal to 20% of amortized cost for a period of twelve or more consecutive months as of December 31, 2018.

ABS, RMBS and CMBS in an unrealized loss position were evaluated based on actual and projected collateral losses relative to the securities' positions in the respective securitization trusts, security specific expectations of cash flows, and credit ratings. This evaluation also takes into consideration credit enhancement, measured in terms of (i) subordination from other classes of securities in the trust that are contractually obligated to absorb losses before the class of security the Company owns, and (ii) the expected impact of other structural features embedded in the securitization trust beneficial to the class of securities the Company owns, such as overcollateralization and excess spread. Municipal bonds in an unrealized loss position were evaluated based on the underlying credit quality of the primary obligor, obligation type and quality of the underlying assets.

As of December 31, 2018, the Company has not made the decision to sell and it is not more likely than not the Company will be required to sell fixed income securities with unrealized losses before recovery of the amortized cost basis.

Limited partnerships

Investments in limited partnership interests include interests in private equity funds, real estate funds and other funds. As of December 31, 2018 and December 31, 2017 the carrying value of EMA limited partnerships totaled $2.51 billion and $2.54 billion, respectively, and limited partnerships carried at fair value as of December 31, 2018, while at cost method as of December 31, 2017, totaled $787 million and $611 million, respectively. Principal factors influencing carrying value appreciation or decline include operating performance, comparable public company earnings multiples, capitalization rates and the economic environment. For equity method limited partnerships, the Company recognizes an impairment loss when evidence demonstrates that the loss is other than temporary. Evidence of a loss in value that is other than temporary may include the absence of an ability to recover the carrying amount of the investment or the inability of the investee to sustain a level of earnings that would justify the carrying amount of the investment. Changes in fair value limited partnerships are recorded through net investment income and therefore are not tested for impairment.

Mortgage loans

The Company's mortgage loans are commercial mortgage loans collateralized by a variety of commercial real estate property types located across the United States and totaled, net of valuation allowance, $4.00 billion and $3.88 billion as of December 31, 2018 and 2017, respectively. Substantially all of the commercial mortgage loans are non-recourse to the borrower.

The following table shows the principal geographic distribution of commercial real estate represented in the Company's mortgage loan portfolio. No other state represented more than 5% of the portfolio as of December 31.

(% of mortgage loan portfolio carrying value)	2018	2017
Texas	15.6%	13.0%
California	15.2	19.6
Illinois	8.5	8.2
New Jersey	7.2	8.0
Florida	6.4	6.7

The types of properties collateralizing the mortgage loans as of December 31 are as follows:

(% of mortgage loan portfolio carrying value)	2018	2017
Apartment complex	33.5%	29.2%
Office buildings	23.9	23.8
Warehouse	15.9	15.5
Retail	15.0	19.2
Other	11.7	12.3
Total	100.0%	100.0%

The contractual maturities of the mortgage loan portfolio as of December 31, 2018 are as follows:

($ in millions)	Number of loans	Carrying value	Percent
2019	5	$ 108	2.7%
2020	13	110	2.8
2021	39	428	10.7
2022	28	401	10.0
Thereafter	178	2,948	73.8
Total	263	$ 3,995	100.0%

Mortgage loans are evaluated for impairment on a specific loan basis through a quarterly credit monitoring process and review of key credit quality indicators. Mortgage loans are considered impaired when it is probable that the Company will not collect the contractual principal and interest. Valuation allowances are established for impaired loans to reduce the carrying value to the fair value of the collateral less costs to sell or the present value of the loan's expected future repayment cash flows discounted at the loan's original effective interest rate. Impaired mortgage loans may not have a valuation allowance when the fair value of the collateral less costs to sell is higher than the carrying value. Valuation allowances are adjusted for subsequent changes in the fair value of the collateral less costs to sell or present value of the loan's expected future repayment cash flows. Mortgage loans are charged off against their corresponding valuation allowances when there is no reasonable expectation of recovery. The impairment evaluation is non-statistical in respect to the aggregate portfolio but considers facts and circumstances attributable to each loan. It is not considered probable that additional impairment losses, beyond those identified on a specific loan basis, have been incurred as of December 31, 2018.

Accrual of income is suspended for mortgage loans that are in default or when full and timely collection of principal and interest payments is not probable. Cash receipts on mortgage loans on nonaccrual status are generally recorded as a reduction of carrying value.

Debt service coverage ratio is considered a key credit quality indicator when mortgage loans are evaluated for impairment. Debt service coverage ratio represents the amount of estimated cash flows from the property available to the borrower to meet principal and interest payment obligations. Debt service coverage ratio estimates are updated annually or more frequently if conditions are warranted based on the Company's credit monitoring process.

The following table reflects the carrying value of non-impaired mortgage loans summarized by debt service coverage ratio distribution as of December 31.

($ in millions)	**2018**			**2017**		
Debt service coverage ratio distribution	**Fixed rate mortgage loans**	**Variable rate mortgage loans**	**Total**	**Fixed rate mortgage loans**	**Variable rate mortgage loans**	**Total**
Below 1.0	$ 6	$ 15	$ 21	$ 3	$ —	$ 3
1.0 - 1.25	221	—	221	326	—	326
1.26 - 1.50	1,048	—	1,048	1,033	15	1,048
Above 1.50	2,659	42	2,701	2,482	13	2,495
Total non-impaired mortgage loans	$ 3,934	$ 57	$ 3,991	$ 3,844	$ 28	$ 3,872

Mortgage loans with a debt service coverage ratio below 1.0 that are not considered impaired primarily relate to instances where the borrower has the financial capacity to fund the revenue shortfalls from the properties for the foreseeable term, the decrease in cash flows from the properties is considered temporary, or there are other risk mitigating circumstances such as additional collateral, escrow balances or borrower guarantees.

The net carrying value of impaired mortgage loans as of December 31 is as follows:

($ in millions)	**2018**	**2017**
Impaired mortgage loans with a valuation allowance	$ 4	$ 4
Impaired mortgage loans without a valuation allowance	—	—
Total impaired mortgage loans	$ 4	$ 4
Valuation allowance on impaired mortgage loans	$ 3	$ 3

The average balance of impaired loans was $4 million, $7 million and $6 million during 2018, 2017 and 2016, respectively.

The rollforward of the valuation allowance on impaired mortgage loans for the years ended December 31 is as follows:

($ in millions)	**2018**	**2017**	**2016**
Beginning balance	$ 3	$ 3	$ 3
Net increase in valuation allowance	—	1	—
Charge offs	—	(1)	—
Ending balance	$ 3	$ 3	$ 3

Payments on all mortgage loans were current as of December 31, 2018, 2017 and 2016.

Municipal bonds

The Company maintains a diversified portfolio of municipal bonds which totaled $2.20 billion and $2.27 billion as of December 31, 2018 and 2017, respectively. The municipal bond portfolio includes general obligations of state and local issuers and revenue bonds (including pre-refunded bonds, which are bonds for which an irrevocable trust has been established to fund the remaining payments of principal and interest). The following table shows the principal geographic distribution of municipal bond issuers represented in the Company's portfolio as of December 31. No other state represents more than 5% of the portfolio.

(% of municipal bond portfolio carrying value)	2018	2017
Texas	17.6%	16.9%
California	15.0	15.1
Oregon	9.8	9.4
New York	5.7	5.2

Short-term investments

Short-term investments, including money market funds, commercial paper, U.S. Treasury bills and other short-term investments, are carried at fair value. As of December 31, 2018 and 2017, the fair value of short-term investments totaled $810 million and $725 million, respectively.

Policy loans

Policy loans are carried at unpaid principal balances. As of both December 30, 2018 and 2017, the carrying value of policy loans totaled $561 million.

Other investments

Other investments primarily consist of agent loans, bank loans, real estate and derivatives. Agent loans are loans issued to exclusive Allstate agents and are carried at unpaid principal balances, net of valuation allowances and unamortized deferred fees or costs. Bank loans are primarily senior secured corporate loans and are carried at amortized cost. Real estate is carried at cost less accumulated depreciation. Derivatives are carried at fair value. The following table summarizes other investments by asset type.

($ in millions)	December 31, 2018	December 31, 2017
Agent loans	$ 620	$ 538
Bank loans	422	437
Real estate	228	157
Derivatives and other	30	122
Total	$ 1,300	$ 1,254

Concentration of credit risk

As of December 31, 2018, the Company is not exposed to any credit concentration risk of a single issuer and its affiliates greater than 10% of the Company's shareholder's equity, other than the U.S. government and its agencies.

Securities loaned

The Company's business activities include securities lending programs with third parties, mostly large banks. As of December 31, 2018 and 2017, fixed income and equity securities with a carrying value of $502 million and $524 million, respectively, were on loan under these agreements. Interest income on collateral, net of fees, was $1 million, $1 million and $2 million in 2018, 2017 and 2016, respectively.

Other investment information

Included in fixed income securities are below investment grade assets totaling $2.57 billion and $2.91 billion as of December 31, 2018 and 2017, respectively.

As of December 31, 2018, fixed income securities and short-term investments with a carrying value of $21 million were on deposit with regulatory authorities as required by law.

As of December 31, 2018, the carrying value of fixed income securities and other investments that were non-income producing was $63 million.

6. Fair Value of Assets and Liabilities

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The hierarchy for inputs used in determining fair value maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. Assets and liabilities recorded on the Consolidated Statements of Financial Position at fair value are categorized in the fair value hierarchy based on the observability of inputs to the valuation techniques as follows:

Level 1: Assets and liabilities whose values are based on unadjusted quoted prices for identical assets or liabilities in an active market that the Company can access.

Level 2: Assets and liabilities whose values are based on the following:

(a) Quoted prices for similar assets or liabilities in active markets;
(b) Quoted prices for identical or similar assets or liabilities in markets that are not active; or
(c) Valuation models whose inputs are observable, directly or indirectly, for substantially the full term of the asset or liability.

Level 3: Assets and liabilities whose values are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. Unobservable inputs reflect the Company's estimates of the assumptions that market participants would use in valuing the assets and liabilities.

The availability of observable inputs varies by instrument. In situations where fair value is based on internally developed pricing models or inputs that are unobservable in the market, the determination of fair value requires more judgment. The degree of judgment exercised by the Company in determining fair value is typically greatest for instruments categorized in Level 3. In many instances, valuation inputs used to measure fair value fall into different levels of the fair value hierarchy. The category level in the fair value hierarchy is determined based on the lowest level input that is significant to the fair value measurement in its entirety. The Company uses prices and inputs that are current as of the measurement date, including during periods of market disruption. In periods of market disruption, the ability to observe prices and inputs may be reduced for many instruments.

The Company is responsible for the determination of fair value and the supporting assumptions and methodologies. The Company gains assurance that assets and liabilities are appropriately valued through the execution of various processes and controls designed to ensure the overall reasonableness and consistent application of valuation methodologies, including inputs and assumptions, and compliance with accounting standards. For fair values received from third parties or internally estimated, the Company's processes and controls are designed to ensure that the valuation methodologies are appropriate and consistently applied, the inputs and assumptions are reasonable and consistent with the objective of determining fair value, and the fair values are accurately recorded. For example, on a continuing basis, the Company assesses the reasonableness of individual fair values that have stale security prices or that exceed certain thresholds as compared to previous fair values received from valuation service providers or brokers or derived from internal models. The Company performs procedures to understand and assess the methodologies, processes and controls of valuation service providers. In addition, the Company may validate the reasonableness of fair values by comparing information obtained from valuation service providers or brokers to other third party valuation sources for selected securities. The Company performs ongoing price validation procedures such as back-testing of actual sales, which corroborate the various inputs used in internal models to market observable data. When fair value determinations are expected to be more variable, the Company validates them through reviews by members of management who have relevant expertise and who are independent of those charged with executing investment transactions.

The Company has two types of situations where investments are classified as Level 3 in the fair value hierarchy. The first is where specific inputs significant to the fair value estimation models are not market observable. This primarily occurs in the Company's use of broker quotes to value certain securities where the inputs have not been corroborated to be market observable, and the use of valuation models that use significant non-market observable inputs.

The second situation where the Company classifies securities in Level 3 is where quotes continue to be received from independent third-party valuation service providers and all significant inputs are market observable; however, there has been a significant decrease in the volume and level of activity for the asset when compared to normal market activity such that the degree of market observability has declined to a point where categorization as a Level 3 measurement is considered appropriate. The indicators considered in determining whether a significant decrease in the volume and level of activity for a specific asset has occurred include the level of new issuances in the primary market, trading volume in the secondary market, the level of credit spreads over historical levels, applicable bid-ask spreads, and price consensus among market participants and other pricing sources.

Certain assets are not carried at fair value on a recurring basis, including investments such as mortgage loans, bank loans, agent loans and policy loans. Accordingly, such investments are only included in the fair value hierarchy disclosure when the investment is subject to remeasurement at fair value after initial recognition and the resulting remeasurement is reflected in the consolidated financial statements.

In determining fair value, the Company principally uses the market approach which generally utilizes market transaction data for the same or similar instruments. To a lesser extent, the Company uses the income approach which involves determining fair values from discounted cash flow methodologies. For the majority of Level 2 and Level 3 valuations, a combination of the market and income approaches is used.

Summary of significant valuation techniques for assets and liabilities measured at fair value on a recurring basis

Level 1 measurements

- Fixed income securities: Comprise certain U.S. Treasury fixed income securities. Valuation is based on unadjusted quoted prices for identical assets in active markets that the Company can access.
- Equity securities: Comprise actively traded, exchange-listed equity securities. Valuation is based on unadjusted quoted prices for identical assets in active markets that the Company can access.
- Short-term: Comprise U.S. Treasury bills valued based on unadjusted quoted prices for identical assets in active markets that the Company can access and actively traded money market funds that have daily quoted net asset values for identical assets that the Company can access.
- Separate account assets: Comprise actively traded mutual funds that have daily quoted net asset values that are readily determinable for identical assets that the Company can access. Net asset values for the actively traded mutual funds in which the separate account assets are invested are obtained daily from the fund managers.

Level 2 measurements

- Fixed income securities:

  U.S. government and agencies: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields and credit spreads.

  Municipal: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields and credit spreads.

  Corporate - public: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields and credit spreads.

  Corporate - privately placed: Valued using a discounted cash flow model that is widely accepted in the financial services industry and uses market observable inputs and inputs derived principally from, or corroborated by, observable market data. The primary inputs to the discounted cash flow model include an interest rate yield curve, as well as published credit spreads for similar assets in markets that are not active that incorporate the credit quality and industry sector of the issuer.

  Foreign government: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields and credit spreads.

  ABS - collateralized debt obligations ("CDO") and ABS - consumer and other: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields, prepayment speeds, collateral performance and credit spreads. Certain ABS - CDO and ABS - consumer and other are valued based on non-binding broker quotes whose inputs have been corroborated to be market observable.

  RMBS: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields, prepayment speeds, collateral performance and credit spreads.

  CMBS: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields, collateral performance and credit spreads.

  Redeemable preferred stock: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields, underlying stock prices and credit spreads.

- Equity securities: The primary inputs to the valuation include quoted prices or quoted net asset values for identical or similar assets in markets that are not active.
- Short-term: The primary inputs to the valuation include quoted prices for identical or similar assets in markets that are not active, contractual cash flows, benchmark yields and credit spreads.
- Other investments: Free-standing exchange listed derivatives that are not actively traded are valued based on quoted prices for identical instruments in markets that are not active.

  Over-the-counter ("OTC") derivatives, including interest rate swaps, foreign currency swaps, total return swaps, foreign exchange forward contracts, certain options and certain credit default swaps, are valued using models that rely on inputs such as interest rate yield curves, implied volatilities, index price levels, currency rates, and credit spreads that are observable for substantially the full term of the contract. The valuation techniques underlying the models are widely accepted in the financial services industry and do not involve significant judgment.

Level 3 measurements

- Fixed income securities:

  Municipal: Comprise municipal bonds that are not rated by third party credit rating agencies. The primary inputs to the valuation of these municipal bonds include quoted prices for identical or similar assets in markets that exhibit less liquidity relative to those markets supporting Level 2 fair value measurements, contractual cash flows, benchmark yields and credit spreads. Also included are municipal bonds valued based on non-binding broker quotes where the inputs have not been corroborated to be market observable.

  Corporate - public and Corporate - privately placed: Primarily valued based on non-binding broker quotes where the inputs have not been corroborated to be market observable. Other inputs include an interest rate yield curve, as well as published credit spreads for similar assets that incorporate the credit quality and industry sector of the issuer.

  ABS - CDO, ABS - consumer and other: Valued based on non-binding broker quotes received from brokers who are familiar with the investments and where the inputs have not been corroborated to be market observable.

- Equity securities: The primary inputs to the valuation include quoted prices or quoted net asset values for identical or similar assets in markets that exhibit less liquidity relative to those markets supporting Level 2 fair value measurements.

- Other investments: Certain OTC derivatives, such as interest rate caps, certain credit default swaps and certain options (including swaptions), are valued using models that are widely accepted in the financial services industry. These are categorized as Level 3 as a result of the significance of non-market observable inputs such as volatility. Other primary inputs include interest rate yield curves and credit spreads.

- Contractholder funds: Derivatives embedded in certain life and annuity contracts are valued internally using models widely accepted in the financial services industry that determine a single best estimate of fair value for the embedded derivatives within a block of contractholder liabilities. The models primarily use stochastically determined cash flows based on the contractual elements of embedded derivatives, projected option cost and applicable market data, such as interest rate yield curves and equity index volatility assumptions. These are categorized as Level 3 as a result of the significance of non-market observable inputs.

Assets and liabilities measured at fair value on a non-recurring basis

Mortgage loans written-down to fair value in connection with recognizing impairments are valued based on the fair value of the underlying collateral less costs to sell.

Investments excluded from the fair value hierarchy

Limited partnerships carried at fair value, which do not have readily determinable fair values, use NAV provided by the investees and are excluded from the fair value hierarchy. These investments are generally not redeemable by the investees and generally cannot be sold without approval of the general partner. The Company receives distributions of income and proceeds from the liquidation of the underlying assets of the investees, which usually takes place in years 4-9 of the typical contractual life of 10-12 years. As of December 31, 2018, the Company has commitments to invest $277 million in these limited partnership interests.

The following table summarizes the Company's assets and liabilities measured at fair value as of December 31, 2018.

($ in millions)	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Counterparty and cash collateral netting	Balance as of December 31, 2018
Assets					
Fixed income securities:					
U.S. government and agencies	$ 493	$ 280	$ —		$ 773
Municipal	—	2,156	39		2,195
Corporate - public	—	11,891	33		11,924
Corporate - privately placed	—	5,552	97		5,649
Foreign government	—	179	—		179
ABS - CDO	—	26	6		32
ABS - consumer and other	—	381	16		397
RMBS	—	197	—		197
CMBS	—	40	—		40
Redeemable preferred stock	—	14	—		14
Total fixed income securities	493	20,716	191		21,400
Equity securities	1,182	14	129		1,325
Short-term investments	443	367	—		810
Other investments: Free-standing derivatives	—	30	1	$ (8)	23
Separate account assets	2,783	—	—		2,783
Total recurring basis assets	$ 4,901	$ 21,127	$ 321	$ (8)	$ 26,341
% of total assets at fair value	18.6%	80.2%	1.2%	— %	100%
Investments reported at NAV					787
Total					$ 27,128
Liabilities					
Contractholder funds: Derivatives embedded in life and annuity contracts	$ —	$ —	$ (223)		$ (223)
Other liabilities: Free-standing derivatives	—	(7)	—	$ 2	(5)
Total recurring basis liabilities	$ —	$ (7)	$ (223)	$ 2	$ (228)
% of total liabilities at fair value	—%	3.1%	97.8%	(0.9)%	100%

The following table summarizes the Company's assets and liabilities measured at fair value as of December 31, 2017.

($ in millions)	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Counterparty and cash collateral netting	Balance as of December 31, 2017
Assets					
Fixed income securities:					
U.S. government and agencies	$ 488	$ 316	$ —		$ 804
Municipal	—	2,216	57		2,273
Corporate - public	—	13,168	49		13,217
Corporate - privately placed	—	5,699	220		5,919
Foreign government	—	299	—		299
ABS - CDO	—	38	10		48
ABS - consumer and other	—	297	40		337
RMBS	—	253	—		253
CMBS	—	97	—		97
Redeemable preferred stock	—	14	—		14
Total fixed income securities	488	22,397	376		23,261
Equity securities	1,508	16	90		1,614
Short-term investments	110	615	—		725
Other investments: Free-standing derivatives	—	117	1	$ (3)	115
Separate account assets	3,422	—	—		3,422
Total recurring basis assets	$ 5,528	$ 23,145	$ 467	$ (3)	$ 29,137
% of total assets at fair value	19.0%	79.4%	1.6%	— %	100.0%
Liabilities					
Contractholder funds: Derivatives embedded in life and annuity contracts	$ —	$ —	$ (284)		$ (284)
Other liabilities: Free-standing derivatives	—	(62)	—	$ 1	(61)
Total recurring basis liabilities	$ —	$ (62)	$ (284)	$ 1	$ (345)
% of total liabilities at fair value	—%	18.0%	82.3%	(0.3)%	100%

The following table summarizes quantitative information about the significant unobservable inputs used in Level 3 fair value measurements.

($ in millions)	Fair value	Valuation technique	Unobservable input	Range	Weighted average
December 31, 2018					
Derivatives embedded in life and annuity contracts – Equity-indexed and forward starting options	$ (184)	Stochastic cash flow model	Projected option cost	1.0 - 2.2%	1.74%
December 31, 2017					
Derivatives embedded in life and annuity contracts – Equity-indexed and forward starting options	$ (250)	Stochastic cash flow model	Projected option cost	1.0 - 2.2%	1.74%

The embedded derivatives are equity-indexed and forward starting options in certain life and annuity products that provide customers with interest crediting rates based on the performance of the S&P 500. If the projected option cost increased (decreased), it would result in a higher (lower) liability fair value.

As of December 31, 2018 and 2017, Level 3 fair value measurements of fixed income securities total $191 million and $376 million, respectively, and include $80 million and $237 million, respectively, of securities valued based on non-binding broker quotes where the inputs have not been corroborated to be market observable. The Company does not develop the unobservable inputs used in measuring fair value; therefore, these are not included in the table above. However, an increase (decrease) in credit spreads for fixed income securities valued based on non-binding broker quotes would result in a lower (higher) fair value.

The following table presents the rollforward of Level 3 assets and liabilities held at fair value during the year ended December 31, 2018.

($ in millions)	Balance as of December 31, 2017	Total gains (losses) included in: Net income [1]	OCI	Transfers into Level 3	Transfers out of Level 3
Assets					
Fixed income securities:					
Municipal	$ 57	$ —	$ (2)	$ —	$ (16)
Corporate - public	49	—	(2)	3	(3)
Corporate - privately placed	220	(2)	(2)	10	(101)
ABS - CDO	10	—	—	—	—
ABS - consumer and other	40	—	—	12	(18)
Total fixed income securities	376	(2)	(6)	25	(138)
Equity securities	90	16	—	—	—
Free-standing derivatives, net	1	—	—	—	—
Total recurring Level 3 assets	$ 467	$ 14	$ (6)	$ 25	$ (138)
Liabilities					
Contractholder funds: Derivatives embedded in life and annuity contracts	$ (284)	$ 57	$ —	$ —	$ —
Total recurring Level 3 liabilities	$ (284)	$ 57	$ —	$ —	$ —

	Purchases	Sales	Issues	Settlements	Balance as of December 31, 2018
Assets					
Fixed income securities:					
Municipal	$ 2	$ (2)	$ —	$ —	$ 39
Corporate - public	—	(11)	—	(3)	33
Corporate - privately placed	12	—	—	(40)	97
ABS - CDO	—	—	—	(4)	6
ABS - consumer and other	20	(19)	—	(19)	16
Total fixed income securities	34	(32)	—	(66)	191
Equity securities	30	(7)	—	—	129
Free-standing derivatives, net	—	—	—	—	1 [2]
Total recurring Level 3 assets	$ 64	$ (39)	$ —	$ (66)	$ 321
Liabilities					
Contractholder funds: Derivatives embedded in life and annuity contracts	$ —	$ —	$ (2)	$ 6	$ (223)
Total recurring Level 3 liabilities	$ —	$ —	$ (2)	$ 6	$ (223)

[1] The effect to net income totals $71 million and is reported in the Consolidated Statements of Operations and Comprehensive Income as follows: $14 million in realized capital gains and losses, $62 million in interest credited to contractholder funds and $(5) million in contract benefits.

[2] Comprises $1 million of assets.

The following table presents the rollforward of Level 3 assets and liabilities held at fair value during the year ended December 31, 2017.

($ in millions)	Balance as of December 31, 2016	Total gains (losses) included in: Net income [1]	OCI	Transfers into Level 3	Transfers out of Level 3
Assets					
Fixed income securities:					
Municipal	$ 59	$ —	$ 2	$ —	$ —
Corporate - public	47	1	—	3	(15)
Corporate - privately placed	264	7	(2)	11	(16)
ABS - CDO	27	—	6	4	(10)
ABS - consumer and other	42	—	—	—	(26)
Total fixed income securities	439	8	6	18	(67)
Equity securities	76	8	3	—	—
Free-standing derivatives, net	(2)	3	—	—	—
Other assets	1	(1)	—	—	—
Total recurring Level 3 assets	$ 514	$ 18	$ 9	$ 18	$ (67)
Liabilities					
Contractholder funds: Derivatives embedded in life and annuity contracts	$ (289)	$ 1	$ —	$ —	$ —
Total recurring Level 3 liabilities	$ (289)	$ 1	$ —	$ —	$ —

	Purchases	Sales	Issues	Settlements	Balance as of December 31, 2017
Assets					
Fixed income securities:					
Municipal	$ —	$ (2)	$ —	$ (2)	$ 57
Corporate - public	17	—	—	(4)	49
Corporate - privately placed	20	(30)	—	(34)	220
ABS - CDO	5	—	—	(22)	10
ABS - consumer and other	29	—	—	(5)	40
Total fixed income securities	71	(32)	—	(67)	376
Equity securities	13	(10)	—	—	90
Free-standing derivatives, net	—	—	—	—	1 [2]
Other assets	—	—	—	—	—
Total recurring Level 3 assets	$ 84	$ (42)	$ —	$ (67)	$ 467
Liabilities					
Contractholder funds: Derivatives embedded in life and annuity contracts	$ —	$ —	$ (2)	$ 6	$ (284)
Total recurring Level 3 liabilities	$ —	$ —	$ (2)	$ 6	$ (284)

[1] The effect to net income totals $19 million and is reported in the Consolidated Statements of Operations and Comprehensive Income as follows: $9 million in realized capital gains and losses, $10 million in net investment income, $(9) million in interest credited to contractholder funds and $9 million in contract benefits.

[2] Comprises $1 million of assets.

The following table presents the rollforward of Level 3 assets and liabilities held at fair value during the year ended December 31, 2016.

($ in millions)	Balance as of December 31, 2015	Total gains (losses) included in: Net income [1]	Total gains (losses) included in: OCI	Transfers into Level 3	Transfers out of Level 3
Assets					
Fixed income securities:					
Municipal	$ 78	$ 12	$ (8)	$ 6	$ —
Corporate - public	44	—	—	16	(15)
Corporate - privately placed	447	15	18	16	(277)
ABS - CDO	53	1	5	8	(1)
ABS - consumer and other	44	—	(3)	3	(7)
Total fixed income securities	666	28	12	49	(300)
Equity securities	60	(15)	5	—	(4)
Free-standing derivatives, net	(7)	6	—	—	—
Other assets	1	—	—	—	—
Total recurring Level 3 assets	$ 720	$ 19	$ 17	$ 49	$ (304)
Liabilities					
Contractholder funds: Derivatives embedded in life and annuity contracts	$ (299)	$ 6	$ —	$ —	$ —
Total recurring Level 3 liabilities	$ (299)	$ 6	$ —	$ —	$ —

	Purchases	Sales	Issues	Settlements	Balance as of December 31, 2016
Assets					
Fixed income securities:					
Municipal	$ —	$ (27)	$ —	$ (2)	$ 59
Corporate - public	6	(3)	—	(1)	47
Corporate - privately placed	108	(15)	—	(48)	264
ABS - CDO	—	(2)	—	(37)	27
ABS - consumer and other	7	—	—	(2)	42
Total fixed income securities	121	(47)	—	(90)	439
Equity securities	32	(2)	—	—	76
Free-standing derivatives, net	—	—	—	(1)	(2) [2]
Other assets	—	—	—	—	1
Total recurring Level 3 assets	$ 153	$ (49)	$ —	$ (91)	$ 514
Liabilities					
Contractholder funds: Derivatives embedded in life and annuity contracts	$ —	$ —	$ (3)	$ 7	$ (289)
Total recurring Level 3 liabilities	$ —	$ —	$ (3)	$ 7	$ (289)

[1] The effect to net income totals $25 million and is reported in the Consolidated Statements of Operations and Comprehensive Income as follows: $8 million in realized capital gains and losses, $11 million in net investment income, $(3) million in interest credited to contractholder funds and $9 million in contract benefits.

[2] Comprises $1 million of assets and $3 million of liabilities.

Transfers between level categorizations may occur due to changes in the availability of market observable inputs, which generally are caused by changes in market conditions such as liquidity, trading volume or bid-ask spreads. Transfers between level categorizations may also occur due to changes in the valuation source, including situations where a fair value quote is not provided by the Company's independent third-party valuation service provider resulting in the price becoming stale or replaced with a broker quote whose inputs have not been corroborated to be market observable. This situation will result in the transfer of a security into Level 3. Transfers in and out of level categorizations are reported as having occurred at the beginning of the quarter in which the transfer occurred. Therefore, for all transfers into Level 3, all realized and changes in unrealized gains and losses in the quarter of transfer are reflected in the Level 3 rollforward table.

There were no transfers between Level 1 and Level 2 during 2018, 2017 or 2016.

Transfers into Level 3 during 2018, 2017 and 2016 included situations where a fair value quote was not provided by the Company's independent third-party valuation service provider and as a result the price was stale or had been replaced with a broker quote where the inputs had not been corroborated to be market observable resulting in the security being classified as Level 3. Transfers out of Level 3 during 2018, 2017 and 2016 included situations where a broker quote was used in the prior period and a fair value quote became available from the Company's independent third-party valuation service provider in the current period. A quote utilizing the new pricing source was not available as of the prior period, and any gains or losses related to the change in valuation source for individual securities were not significant.

The table below provides valuation changes included in net income for Level 3 assets and liabilities held as of December 31.

($ in millions)	2018	2017	2016
Assets			
Fixed income securities:			
Municipal	$ —	$ —	$ 2
Corporate	—	1	1
Total fixed income securities	—	1	3
Equity securities	16	9	(15)
Free-standing derivatives, net	—	—	5
Other assets	—	(1)	—
Total recurring Level 3 assets	$ 16	$ 9	$ (7)
Liabilities			
Contractholder funds: Derivatives embedded in life and annuity contracts	$ 57	$ 1	$ 6
Total recurring Level 3 liabilities	$ 57	$ 1	$ 6

The amounts in the table above represent the change in unrealized gains and losses included in net income for the period of time that the asset or liability was held and determined to be in Level 3. These gains and losses total $73 million in 2018 and are reported as follows: $16 million in realized capital gains and losses, $62 million in interest credited to contractholder funds and $(5) million in contract benefits. These gains and losses total $10 million in 2017 and are reported as follows: $10 million in net investment income, $(9) million in interest credited to contractholder funds and $9 million in contract benefits. These gains and losses total $(1) million in 2016 and are reported as follows: $(18) million in realized capital gains and losses, $11 million in net investment income, $(3) million in interest credited to contractholder funds and $9 million in contract benefits.

Presented below are the carrying values and fair value estimates of financial instruments not carried at fair value.

Financial assets

($ in millions)		December 31, 2018		December 31, 2017	
	Fair value level	Carrying value	Fair value	Carrying value	Fair value
Mortgage loans	Level 3	$ 3,995	$ 4,028	$ 3,876	$ 4,052
Bank loans	Level 3	422	408	437	437
Agent loans	Level 3	620	617	538	536

Financial liabilities

($ in millions)		December 31, 2018		December 31, 2017	
	Fair value level	Carrying value	Fair value	Carrying value	Fair value
Contractholder funds on investment contracts	Level 3	$ 9,213	$ 9,629	$ 10,331	$ 11,036
Liability for collateral	Level 2	525	525	542	542
Notes due to related parties	Level 3	140	138	140	141

7. Derivative Financial Instruments and Off-balance sheet Financial Instruments

The Company uses derivatives for risk reduction and to increase investment portfolio returns through asset replication. Risk reduction activity is focused on managing the risks with certain assets and liabilities arising from the potential adverse impacts from changes in risk-free interest rates, changes in equity market valuations, increases in credit spreads and foreign currency fluctuations. Asset replication refers to the "synthetic" creation of assets through the use of derivatives. The Company replicates fixed income securities using a combination of a credit default swap, index total return swap or a foreign currency forward contract and one or more highly rated fixed income securities, primarily investment grade host bonds, to synthetically replicate the economic characteristics of one or more cash market securities. The Company replicates equity securities using futures, index total return swaps and options to increase equity exposure.

The Company utilizes several derivative strategies to manage risk. Asset-liability management is a risk management strategy that is principally employed to balance the respective interest-rate sensitivities of the Company's assets and liabilities. Depending upon the attributes of the assets acquired and liabilities issued, derivative instruments such as interest rate swaps, caps, swaptions and futures are utilized to change the interest rate characteristics of existing assets and liabilities to ensure the relationship is maintained within specified ranges and to reduce exposure to rising or falling interest rates. Fixed income index total return swaps are used to offset valuation losses in the fixed income portfolio during periods of declining market values. Credit default swaps are typically used to mitigate the credit risk within the Company's fixed income portfolio. Futures and options are used for hedging the equity exposure contained in the Company's equity indexed life and annuity product contracts that offer equity returns to contractholders. In addition, the Company uses equity index total return swaps, options and futures to offset valuation losses in the equity portfolio during periods of declining equity market values. Foreign currency swaps and forwards are primarily used by the Company to reduce the foreign currency risk associated with holding foreign currency denominated investments.

The Company also has derivatives embedded in non-derivative host contracts that are required to be separated from the host contracts and accounted for at fair value with changes in fair value of embedded derivatives reported in net income. The Company's primary embedded derivatives are equity options in life and annuity product contracts, which provide returns linked to equity indices to contractholders.

When derivatives meet specific criteria, they may be designated as accounting hedges and accounted for as fair value, cash flow, foreign currency fair value or foreign currency cash flow hedges. The Company designates certain investment risk transfer reinsurance agreements as fair value hedges when the hedging instrument is highly effective in offsetting the risk of changes in the fair value of the hedged item. The Company designates certain of its foreign currency swap contracts as cash flow hedges when the hedging instrument is highly effective in offsetting the exposure of variations in cash flows for the hedged risk that could affect net income. Amounts are reclassified to net investment income or realized capital gains and losses as the hedged item affects net income.

The notional amounts specified in the contracts are used to calculate the exchange of contractual payments under the agreements and are generally not representative of the potential for gain or loss on these agreements. However, the notional amounts specified in credit default swaps where the Company has sold credit protection represent the maximum amount of potential loss, assuming no recoveries.

Fair value, which is equal to the carrying value, is the estimated amount that the Company would receive or pay to terminate the derivative contracts at the reporting date. The carrying value amounts for OTC derivatives are further adjusted for the effects, if any, of enforceable master netting agreements and are presented on a net basis, by counterparty agreement, in the Consolidated Statements of Financial Position.

For those derivatives which qualify for fair value hedge accounting, net income includes the changes in the fair value of both the derivative instrument and the hedged risk, and therefore reflects any hedging ineffectiveness. For cash flow hedges, gains and losses are amortized from AOCI and are reported in net income in the same period the forecasted transactions being hedged impact net income.

Non-hedge accounting is generally used for "portfolio" level hedging strategies where the terms of the individual hedged items do not meet the strict homogeneity requirements to permit the application of hedge accounting. For non-hedge derivatives, net income includes changes in fair value and accrued periodic settlements, when applicable. With the exception of non-hedge derivatives used for asset replication and non-hedge embedded derivatives, all of the Company's derivatives are evaluated for their ongoing effectiveness as either accounting hedge or non-hedge derivative financial instruments on at least a quarterly basis.

The following table provides a summary of the volume and fair value positions of derivative instruments as well as their reporting location in the Consolidated Statement of Financial Position as of December 31, 2018.

($ in millions, except number of contracts)		Volume [1]				
	Balance sheet location	Notional amount	Number of contracts	Fair value, net	Gross asset	Gross liability
Asset derivatives						
Derivatives not designated as accounting hedging instruments						
Interest rate contracts						
Interest rate cap agreements	Other investments	$ 6	n/a	$ —	$ —	$ —
Futures	Other assets	—	330	—	—	—
Equity and index contracts						
Options	Other investments	—	3,440	21	21	—
Futures	Other assets	—	26	—	—	—
Total return index contracts						
Total return swap agreements - fixed income	Other investments	7	n/a	—	—	—
Total return swap agreements - equity index	Other investments	10	n/a	(1)	—	(1)
Foreign currency contracts						
Foreign currency forwards	Other investments	240	n/a	8	8	—
Credit default contracts						
Credit default swaps – buying protection	Other investments	27	n/a	—	1	(1)
Other contracts						
Other	Other investments	2	n/a	—	—	—
Total asset derivatives		$ 292	3,796	$ 28	$ 30	$ (2)
Liability derivatives						
Derivatives not designated as accounting hedging instruments						
Interest rate contracts						
Interest rate cap agreements	Other liabilities & accrued expenses	$ 31	n/a	$ 1	$ 1	$ —
Equity and index contracts						
Options	Other liabilities & accrued expenses	—	3,266	(5)	—	(5)
Embedded derivative financial instruments						
Guaranteed accumulation benefits	Contractholder funds	169	n/a	(25)	—	(25)
Guaranteed withdrawal benefits	Contractholder funds	210	n/a	(14)	—	(14)
Equity-indexed and forward starting options in life and annuity product contracts	Contractholder funds	1,696	n/a	(184)	—	(184)
Credit default contracts						
Credit default swaps – selling protection	Other liabilities & accrued expenses	1	n/a	—	—	—
Total liability derivatives		2,107	3,266	(227)	$ 1	$ (228)
Total derivatives		$ 2,399	7,062	$ (199)		

[1] Volume for OTC and cleared derivative contracts is represented by their notional amounts. Volume for exchange traded derivatives is represented by the number of contracts, which is the basis on which they are traded. (n/a = not applicable)

The following table provides a summary of the volume and fair value positions of derivative instruments as well as their reporting location in the Consolidated Statement of Financial Position as of December 31, 2017.

($ in millions, except number of contracts)		Volume [1]				
	Balance sheet location	Notional amount	Number of contracts	Fair value, net	Gross asset	Gross liability
Asset derivatives						
Derivatives not designated as accounting hedging instruments						
Interest rate contracts						
Interest rate cap agreements	Other investments	$ 15	n/a	$ —	$ —	$ —
Equity and index contracts						
Options	Other investments	—	4,485	114	114	—
Credit default contracts						
Credit default swaps – buying protection	Other investments	3	n/a	—	—	—
Credit default swaps – selling protection	Other investments	80	n/a	1	1	—
Other contracts						
Other	Other assets	3	n/a	—	—	—
Total asset derivatives		$ 101	4,485	$ 115	$ 115	$ —
Liability derivatives						
Derivatives designated as accounting hedging instruments						
Foreign currency swap agreements	Other liabilities & accrued expenses	$ 19	n/a	$ 2	$ 2	$ —
Derivatives not designated as accounting hedging instruments						
Interest rate contracts						
Interest rate cap agreements	Other liabilities & accrued expenses	30	n/a	1	1	—
Equity and index contracts						
Options and futures	Other liabilities & accrued expenses	—	4,464	(53)	—	(53)
Foreign currency contracts						
Foreign currency forwards	Other liabilities & accrued expenses	207	n/a	(8)	—	(8)
Embedded derivative financial instruments						
Guaranteed accumulation benefits	Contractholder funds	225	n/a	(22)	—	(22)
Guaranteed withdrawal benefits	Contractholder funds	274	n/a	(12)	—	(12)
Equity-indexed and forward starting options in life and annuity product contracts	Contractholder funds	1,735	n/a	(250)	—	(250)
Credit default contracts						
Credit default swaps – buying protection	Other liabilities & accrued expenses	34	n/a	(1)	—	—
Credit default swaps – selling protection	Other liabilities & accrued expenses	1	n/a	—	—	(1)
Subtotal		2,506	4,464	(345)	1	(346)
Total liability derivatives		2,525	4,464	(343)	$ 3	$ (346)
Total derivatives		$ 2,626	8,949	$ (228)		

[1] Volume for OTC and cleared derivative contracts is represented by their notional amounts. Volume for exchange traded derivatives is represented by the number of contracts, which is the basis on which they are traded. (n/a = not applicable)

The following table provides gross and net amounts for the Company's OTC derivatives, all of which are subject to enforceable master netting agreements.

($ in millions)		Offsets				
	Gross amount	Counter-party netting	Cash collateral (received) pledged	Net amount on balance sheet	Securities collateral (received) pledged	Net amount
December 31, 2018						
Asset derivatives	$ 10	$ (3)	$ (5)	$ 2	$ —	$ 2
Liability derivatives	(2)	3	(1)	—	—	—
December 31, 2017						
Asset derivatives	$ 4	$ (3)	$ —	$ 1	$ —	$ 1
Liability derivatives	(10)	3	(2)	(9)	3	(6)

The following table provides a summary of the impacts of the Company's foreign currency contracts in cash flow hedging relationships for the years ended December 31. There was no hedge ineffectiveness reported in realized gains and losses in 2018, 2017 or 2016.

($ in millions)	2018	2017	2016
Gain (loss) recognized in OCI on derivatives during the period	$ 1	$ (2)	$ (1)
Gain recognized in OCI on derivatives during the term of the hedging relationship	—	2	5
Gain reclassified from AOCI into income (net investment income)	—	1	1
Gain reclassified from AOCI into income (realized capital gains and losses)	3	—	3

The following tables present gains and losses from valuation and settlements reported on derivatives not designated as accounting hedging instruments in the Consolidated Statements of Operations and Comprehensive Income. In 2018, 2017 and 2016, the Company had no derivatives used in fair value hedging relationships.

($ in millions)	Realized capital gains and losses	Contract benefits	Interest credited to contractholder funds	Total gain (loss) recognized in net income on derivatives
2018				
Interest rate contracts	$ 1	$ —	$ —	$ 1
Equity and index contracts	(4)	—	(23)	(27)
Embedded derivative financial instruments	—	(5)	66	61
Foreign currency contracts	12	—	—	12
Total return swaps - fixed income	(1)	—	—	(1)
Total return swaps - equity	(1)	—	—	(1)
Total	$ 7	$ (5)	$ 43	$ 45
2017				
Equity and index contracts	$ (4)	$ —	$ 45	$ 41
Embedded derivative financial instruments	—	9	(5)	4
Foreign currency contracts	(14)	—	—	(14)
Credit default contracts	2	—	—	2
Total	$ (16)	$ 9	$ 40	$ 33
2016				
Equity and index contracts	$ (4)	$ —	$ 18	$ 14
Embedded derivative financial instruments	—	9	1	10
Foreign currency contracts	6	—	—	6
Credit default contracts	3	—	—	3
Total	$ 5	$ 9	$ 19	$ 33

The Company manages its exposure to credit risk by utilizing highly rated counterparties, establishing risk control limits, executing legally enforceable master netting agreements ("MNAs") and obtaining collateral where appropriate. The Company uses MNAs for OTC derivative transactions that permit either party to net payments due for transactions and collateral is either pledged or obtained when certain predetermined exposure limits are exceeded. As of December 31, 2018, counterparties pledged $8 million in collateral to the Company, and the Company pledged $2 million in cash and securities to counterparties. The Company has not incurred any losses on derivative financial instruments due to counterparty nonperformance. Other derivatives, including futures and certain option contracts, are traded on organized exchanges which require margin deposits and guarantee the execution of trades, thereby mitigating any potential credit risk.

Counterparty credit exposure represents the Company's potential loss if all of the counterparties concurrently fail to perform under the contractual terms of the contracts and all collateral, if any, becomes worthless. This exposure is measured by the fair value of OTC derivative contracts with a positive fair value at the reporting date reduced by the effect, if any, of legally enforceable master netting agreements.

For certain exchange traded and cleared derivatives, margin deposits are required as well as daily cash settlements of margin accounts. As of December 31, 2018 the Company pledged $7 million in the form of margin deposits.

The following table summarizes the counterparty credit exposure as of December 31 by counterparty credit rating as it relates to the Company's OTC derivatives.

($ in millions)	2018				2017			
Rating [1]	Number of counter-parties	Notional amount [2]	Credit exposure [2]	Exposure, net of collateral [2]	Number of counter-parties	Notional amount [2]	Credit exposure [2]	Exposure, net of collateral [2]
A+	3	$ 283	$ 9	$ 1	2	$ 59	$ 3	$ —
A	1	23	—	—	—	—	—	—
Total	4	$ 306	$ 9	$ 1	2	$ 59	$ 3	$ —

[1] Allstate uses the lower of S&P or Moody's long-term debt issuer ratings.

[2] Only OTC derivatives with a net positive fair value are included for each counterparty.

Market risk is the risk that the Company will incur losses due to adverse changes in market rates and prices. Market risk exists for all of the derivative financial instruments the Company currently holds, as these instruments may become less valuable due to adverse changes in market conditions. To limit this risk, the Company's senior management has established risk control limits. In addition, changes in fair value of the derivative financial instruments that the Company uses for risk management purposes are generally offset by the change in the fair value or cash flows of the hedged risk component of the related assets, liabilities or forecasted transactions.

Certain of the Company's derivative instruments contain credit-risk-contingent termination events, cross-default provisions and credit support annex agreements. Credit-risk-contingent termination events allow the counterparties to terminate the derivative agreement or a specific trade on certain dates if AIC's, ALIC's or Allstate Life Insurance Company of New York's ("ALNY") financial strength credit ratings by Moody's or S&P fall below a certain level. Credit-risk-contingent cross-default provisions allow the counterparties to terminate the derivative agreement if the Company defaults by pre-determined threshold amounts on certain debt instruments. Credit-risk-contingent credit support annex agreements specify the amount of collateral the Company must post to counterparties based on AIC's, ALIC's or ALNY's financial strength credit ratings by Moody's or S&P, or in the event AIC, ALIC or ALNY are no longer rated by either Moody's or S&P.

The following summarizes the fair value of derivative instruments with termination, cross-default or collateral credit-risk-contingent features that are in a liability position as of December 31, as well as the fair value of assets and collateral that are netted against the liability in accordance with provisions within legally enforceable MNAs.

($ in millions)	2018	2017
Gross liability fair value of contracts containing credit-risk-contingent features	$ 2	$ 12
Gross asset fair value of contracts containing credit-risk-contingent features and subject to MNAs	(2)	(5)
Collateral posted under MNAs for contracts containing credit-risk-contingent features	—	(3)
Maximum amount of additional exposure for contracts with credit-risk-contingent features if all features were triggered concurrently	$ —	$ 4

Credit derivatives - selling protection

A credit default swap ("CDS") is a derivative instrument, representing an agreement between two parties to exchange the credit risk of a specified entity (or a group of entities), or an index based on the credit risk of a group of entities (all commonly referred to as the "reference entity" or a portfolio of "reference entities"), in return for a periodic premium. In selling protection, CDSs are used to replicate fixed income securities and to complement the cash market when credit exposure to certain issuers is not available or when the derivative alternative is less expensive than the cash market alternative. CDSs typically have a five-year term.

The following table shows the CDS notional amounts by credit rating and fair value of protection sold.

($ in millions)	Notional amount					
	AA	A	BBB	BB and lower	Total	Fair value
December 31, 2018						
Single name						
Corporate debt	$ —	$ —	$ —	$ 1	$ 1	$ —
Total	$ —	$ —	$ —	$ 1	$ 1	$ —
December 31, 2017						
Single name						
Corporate debt	$ —	$ —	$ —	$ 1	$ 1	$ —
Index						
Corporate debt	1	19	45	15	80	1
Total	$ 1	$ 19	$ 45	$ 16	$ 81	$ 1

In selling protection with CDS, the Company sells credit protection on an identified single name, a basket of names in a first-to-default ("FTD") structure or credit derivative index ("CDX") that is generally investment grade, and in return receives periodic premiums through expiration or termination of the agreement. With single name CDS, this premium or credit spread generally corresponds to the difference between the yield on the reference entity's public fixed maturity cash instruments and swap rates at the time the agreement is executed. With a FTD basket, because of the additional credit risk inherent in a basket of named reference entities, the premium generally corresponds to a high proportion of the sum of the credit spreads of the names in the basket and the correlation between the names. CDX is utilized to take a position on multiple (generally 125) reference entities. Credit events are typically defined as bankruptcy, failure to pay, or restructuring, depending on the nature of the reference entities. If a credit event occurs, the Company settles with the counterparty, either through physical settlement or cash settlement. In a physical settlement, a reference asset is delivered by the buyer of protection to the Company, in exchange for cash payment at par, whereas in a cash settlement, the Company pays the difference between par and the prescribed value of the reference asset. When a credit event occurs in a single name or FTD basket (for FTD, the first credit event occurring for any one name in the basket), the contract terminates at the time of settlement. For CDX, the reference entity's name incurring the credit event is removed from the index while the contract continues until expiration. The maximum payout on a CDS is the contract notional amount. A physical settlement may afford the Company with recovery rights as the new owner of the asset.

The Company monitors risk associated with credit derivatives through individual name credit limits at both a credit derivative and a combined cash instrument/credit derivative level. The ratings of individual names for which protection has been sold are also monitored.

Off-balance sheet financial instruments

The contractual amounts of off-balance sheet financial instruments as of December 31 are as follows:

($ in millions)	2018	2017
Commitments to invest in limited partnership interests	$ 1,195	$ 1,345
Private placement commitments	7	27
Other loan commitments	176	87

In the preceding table, the contractual amounts represent the amount at risk if the contract is fully drawn upon, the counterparty defaults and the value of any underlying security becomes worthless. Unless noted otherwise, the Company does not require collateral or other security to support off-balance sheet financial instruments with credit risk.

Commitments to invest in limited partnership interests represent agreements to acquire new or additional participation in certain limited partnership investments. The Company enters into these agreements in the normal course of business. Because the investments in limited partnerships are not actively traded, it is not practical to estimate the fair value of these commitments.

Private placement commitments represent commitments to purchase private placement debt and private equity securities at a future date. The Company enters into these agreements in the normal course of business. The fair value of the debt commitments generally cannot be estimated on the date the commitment is made as the terms and conditions of the underlying private placement securities are not yet final. Because the private equity securities are not actively traded, it is not practical to estimate fair value of the commitments.

Other loan commitments are agreements to lend to a borrower provided there is no violation of any condition established in the contract. The Company enters into these agreements to commit to future loan fundings at predetermined interest rates.

Commitments have either fixed or varying expiration dates or other termination clauses. The fair value of these commitments is insignificant.

8. Reserve for Life-Contingent Contract Benefits and Contractholder Funds

As of December 31, the reserve for life-contingent contract benefits consists of the following:

($ in millions)	2018	2017
Immediate fixed annuities:		
Structured settlement annuities	$ 6,701	$ 6,994
Other immediate fixed annuities	1,709	1,850
Traditional life insurance	2,517	2,458
Accident and health insurance	203	238
Other	109	85
Total reserve for life-contingent contract benefits	$ 11,239	$ 11,625

The following table highlights the key assumptions generally used in calculating the reserve for life-contingent contract benefits.

Product	Mortality	Interest rate	Estimation method
Structured settlement annuities	U.S. population with projected calendar year improvements; mortality rates adjusted for each impaired life based on reduction in life expectancy	Interest rate assumptions range from 2.9% to 9.0%	Present value of contractually specified future benefits
Other immediate fixed annuities	1983 group annuity mortality table with internal modifications; 1983 individual annuity mortality table; Annuity 2000 mortality table with internal modifications; Annuity 2000 mortality table; 1983 individual annuity mortality table with internal modifications	Interest rate assumptions range from 0.0% to 11.5%	Present value of expected future benefits based on historical experience
Traditional life insurance	Actual company experience plus loading	Interest rate assumptions range from 2.5% to 11.3%	Net level premium reserve method using the Company's withdrawal experience rates; includes reserves for unpaid claims
Accident and health insurance	Actual company experience plus loading	Interest rate assumptions range from 3.0% to 7.0%	Unearned premium; additional contract reserves for mortality risk and unpaid claims
Other: Variable annuity guaranteed minimum death benefits [1]	Annuity 2012 mortality table with internal modifications	Interest rate assumptions range from 2.0% to 5.8%	Projected benefit ratio applied to cumulative assessments

[1] In 2006, the Company disposed of substantially all of its variable annuity business through reinsurance agreements with The Prudential Insurance Company of America, a subsidiary of Prudential Financial, Inc. (collectively "Prudential").

To the extent that unrealized gains on fixed income securities would result in a premium deficiency had those gains actually been realized, a premium deficiency reserve is recorded for certain immediate annuities with life contingencies. A liability is included in the reserve for life-contingent contract benefits with respect to this deficiency. The offset to this liability is recorded as a reduction of the unrealized net capital gains included in AOCI. The liability was zero and $315 million as of December 31, 2018 and 2017, respectively.

As of December 31, contractholder funds consist of the following:

($ in millions)	2018	2017
Interest-sensitive life insurance	$ 7,369	$ 7,387
Investment contracts:		
Fixed annuities	9,645	10,790
Other investment contracts	456	415
Total contractholder funds	$ 17,470	$ 18,592

The following table highlights the key contract provisions relating to contractholder funds.

Product	Interest rate	Withdrawal/surrender charges
Interest-sensitive life insurance	Interest rates credited range from 0.0% to 10.0% for equity-indexed life (whose returns are indexed to the S&P 500) and 1.0% to 6.0% for all other products	Either a percentage of account balance or dollar amount grading off generally over 20 years
Fixed annuities	Interest rates credited range from 0.0% to 9.8% for immediate annuities; (8.0)% to 10.8% for equity-indexed annuities (whose returns are indexed to the S&P 500); and 0.1% to 6.0% for all other products	Either a declining or a level percentage charge generally over ten years or less. Additionally, approximately 13.5% of fixed annuities are subject to market value adjustment for discretionary withdrawals
Other investment contracts: Guaranteed minimum income, accumulation and withdrawal benefits on variable [(1)] and fixed annuities and secondary guarantees on interest-sensitive life insurance and fixed annuities	Interest rates used in establishing reserves range from 1.7% to 10.3%	Withdrawal and surrender charges are based on the terms of the related interest-sensitive life insurance or fixed annuity contract

(1) In 2006, the Company disposed of substantially all of its variable annuity business through reinsurance agreements with Prudential.

Contractholder funds activity for the years ended December 31 is as follows:

($ in millions)	2018	2017	2016
Balance, beginning of year	$ 18,592	$ 19,470	$ 20,542
Deposits	863	909	969
Interest credited	597	635	672
Benefits	(810)	(871)	(947)
Surrenders and partial withdrawals	(1,095)	(960)	(1,014)
Maturities of and interest payments on institutional products	—	—	(86)
Contract charges	(645)	(655)	(665)
Net transfers from separate accounts	7	4	5
Other adjustments	(39)	60	(6)
Balance, end of year	$ 17,470	$ 18,592	$ 19,470

The Company offered various guarantees to variable annuity contractholders. In 2006, the Company disposed of substantially all of its variable annuity business through reinsurance agreements with Prudential. Liabilities for variable contract guarantees related to death benefits are included in the reserve for life-contingent contract benefits and the liabilities related to the income, withdrawal and accumulation benefits are included in contractholder funds. All liabilities for variable contract guarantees are reported on a gross basis on the balance sheet with a corresponding reinsurance recoverable asset for those contracts subject to reinsurance.

Absent any contract provision wherein the Company guarantees either a minimum return or account value upon death, a specified contract anniversary date, partial withdrawal or annuitization, variable annuity and variable life insurance contractholders bear the investment risk that the separate accounts' funds may not meet their stated investment objectives. The account balances of variable annuity contracts' separate accounts with guarantees included $2.45 billion and $3.00 billion of equity, fixed income and balanced mutual funds and $245 million and $322 million of money market mutual funds as of December 31, 2018 and 2017, respectively.

The table below presents information regarding the Company's variable annuity contracts with guarantees. The Company's variable annuity contracts may offer more than one type of guarantee in each contract; therefore, the sum of amounts listed exceeds the total account balances of variable annuity contracts' separate accounts with guarantees.

($ in millions)	**December 31,**	
	2018	**2017**
In the event of death		
Separate account value	$ 2,694	$ 3,323
Net amount at risk [(1)]	$ 605	$ 453
Average attained age of contractholders	71 years	70 years
At annuitization (includes income benefit guarantees)		
Separate account value	$ 778	$ 944
Net amount at risk [(2)]	$ 264	$ 202
Weighted average waiting period until annuitization options available	None	None
For cumulative periodic withdrawals		
Separate account value	$ 190	$ 253
Net amount at risk [(3)]	$ 16	$ 10
Accumulation at specified dates		
Separate account value	$ 129	$ 170
Net amount at risk [(4)]	$ 26	$ 17
Weighted average waiting period until guarantee date	4 years	5 years

(1) Defined as the estimated current guaranteed minimum death benefit in excess of the current account balance as of the balance sheet date.

(2) Defined as the estimated present value of the guaranteed minimum annuity payments in excess of the current account balance.

(3) Defined as the estimated current guaranteed minimum withdrawal balance (initial deposit) in excess of the current account balance as of the balance sheet date.

(4) Defined as the estimated present value of the guaranteed minimum accumulation balance in excess of the current account balance.

The liability for death and income benefit guarantees is equal to a benefit ratio multiplied by the cumulative contract charges earned, plus accrued interest less contract excess guarantee benefit payments. The benefit ratio is calculated as the estimated present value of all expected contract excess guarantee benefits divided by the present value of all expected contract charges. The establishment of reserves for these guarantees requires the projection of future fund values, mortality, persistency and customer benefit utilization rates. These assumptions are periodically reviewed and updated. For guarantees related to death benefits, benefits represent the projected excess guaranteed minimum death benefit payments. For guarantees related to income benefits, benefits represent the present value of the minimum guaranteed annuitization benefits in excess of the projected account balance at the time of annuitization.

Projected benefits and contract charges used in determining the liability for certain guarantees are developed using models and stochastic scenarios that are also used in the development of estimated expected gross profits. Underlying assumptions for the liability related to income benefits include assumed future annuitization elections based on factors such as the extent of benefit to the potential annuitant, eligibility conditions and the annuitant's attained age. The liability for guarantees is re-evaluated periodically, and adjustments are made to the liability balance through a charge or credit to contract benefits.

Guarantees related to the majority of withdrawal and accumulation benefits are considered to be derivative financial instruments; therefore, the liability for these benefits is established based on its fair value.

The following table summarizes the liabilities for guarantees.

($ in millions)	Liability for guarantees related to death benefits and interest-sensitive life products	Liability for guarantees related to income benefits	Liability for guarantees related to accumulation and withdrawal benefits	Total
Balance, December 31, 2017 (1)	$ 261	$ 28	$ 80	$ 369
Less reinsurance recoverables	87	25	34	146
Net balance as of December 31, 2017	174	3	46	223
Incurred guarantee benefits	24	—	13	37
Paid guarantee benefits	(2)	—	—	(2)
Net change	22	—	13	35
Net balance as of December 31, 2018	196	3	59	258
Plus reinsurance recoverables	111	35	39	185
Balance, December 31, 2018 (2)	$ 307	$ 38	$ 98	$ 443
Balance, December 31, 2016 (3)	$ 244	$ 43	$ 77	$ 364
Less reinsurance recoverables	101	40	43	184
Net balance as of December 31, 2016	143	3	34	180
Incurred guarantee benefits	33	—	12	45
Paid guarantee benefits	(2)	—	—	(2)
Net change	31	—	12	43
Net balance as of December 31, 2017	174	3	46	223
Plus reinsurance recoverables	87	25	34	146
Balance, December 31, 2017 (1)	$ 261	$ 28	$ 80	$ 369

(1) Included in the total liability balance as of December 31, 2017 are reserves for variable annuity death benefits of $85 million, variable annuity income benefits of $26 million, variable annuity accumulation benefits of $22 million, variable annuity withdrawal benefits of $12 million and other guarantees of $224 million.

(2) Included in the total liability balance as of December 31, 2018 are reserves for variable annuity death benefits of $109 million, variable annuity income benefits of $36 million, variable annuity accumulation benefits of $25 million, variable annuity withdrawal benefits of $14 million and other guarantees of $259 million.

(3) Included in the total liability balance as of December 31, 2016 are reserves for variable annuity death benefits of $100 million, variable annuity income benefits of $40 million, variable annuity accumulation benefits of $34 million, variable annuity withdrawal benefits of $9 million and other guarantees of $181 million.

9. Reinsurance

The Company reinsures certain of its risks to other insurers primarily under yearly renewable term, coinsurance and modified coinsurance agreements. These agreements result in a passing of the agreed-upon percentage of risk to the reinsurer in exchange for negotiated reinsurance premium payments. Modified coinsurance is similar to coinsurance, except that the cash and investments that support the liability for contract benefits are not transferred to the assuming company and settlements are made on a net basis between the companies.

For certain term life insurance policies issued prior to October 2009, the Company ceded up to 90% of the mortality risk depending on the year of policy issuance under coinsurance agreements to a pool of fourteen unaffiliated reinsurers. Effective October 2009, mortality risk on term business is ceded under yearly renewable term agreements under which the Company cedes mortality in excess of its retention, which is consistent with how the Company generally reinsures its permanent life insurance business. The following table summarizes those retention limits by period of policy issuance.

Period	Retention limits
April 2015 through current	Single life: $2 million per life Joint life: no longer offered
April 2011 through March 2015	Single life: $5 million per life, $3 million age 70 and over, and $10 million for contracts that meet specific criteria Joint life: $8 million per life, and $10 million for contracts that meet specific criteria
July 2007 through March 2011	$5 million per life, $3 million age 70 and over, and $10 million for contracts that meet specific criteria
September 1998 through June 2007	$2 million per life, in 2006 the limit was increased to $5 million for instances when specific criteria were met
August 1998 and prior	Up to $1 million per life

In addition, the Company has used reinsurance to effect the disposition of certain blocks of business. The Company had reinsurance recoverables of $1.36 billion and $1.35 billion as of December 31, 2018 and 2017, respectively, due from Prudential related to the disposal of substantially all of its variable annuity business that was effected through reinsurance agreements. In 2018, premiums and contract charges of $72 million, contract benefits of $87 million, interest credited to contractholder funds of $20 million, and operating costs and expenses of $14 million were ceded to Prudential. In 2017, premiums and contract charges of $76 million, contract benefits of $7 million, interest credited to contractholder funds of $20 million, and operating costs and expenses of $15 million were ceded to Prudential. In 2016, premiums and contract charges of $78 million, contract benefits of $21 million, interest credited to contractholder funds of $20 million, and operating costs and expenses of $15 million were ceded to Prudential. In addition, as of December 31, 2018 and 2017 the Company had reinsurance recoverables of $118 million and $139 million, respectively, due from subsidiaries of Citigroup (Triton Insurance and American Health and Life Insurance) and Scottish Re (U.S.) Inc. in connection with the disposition of substantially all of the direct response distribution business in 2003.

The Company is the assuming reinsurer for Lincoln Benefit Life Company's ("LBL's") life insurance business sold through the Allstate agency channel and LBL's payout annuity business in force prior to the sale of LBL on April 1, 2014. Under the terms of the reinsurance agreement, the Company is required to have a trust with assets greater than or equal to the statutory reserves ceded by LBL to the Company, measured on a monthly basis. As of December 31, 2018, the trust held $5.94 billion of investments, which are reported in the Consolidated Statement of Financial Position.

As of December 31, 2018, the gross life insurance in force was $414.52 billion of which $4.84 billion and $78.33 billion were ceded to affiliated and unaffiliated reinsurers, respectively.

The effects of reinsurance on premiums and contract charges for the years ended December 31 are as follows:

($ in millions)	**2018**	**2017**	**2016**
Direct	$ 743	$ 734	$ 715
Assumed			
Affiliate	241	227	138
Non-affiliate	741	772	803
Ceded			
Affiliate	(51)	(52)	(53)
Non-affiliate	(275)	(288)	(294)
Premiums and contract charges, net of reinsurance	$ 1,399	$ 1,393	$ 1,309

The effects of reinsurance on contract benefits for the years ended December 31 are as follows:

($ in millions)	**2018**	**2017**	**2016**
Direct	$ 1,062	$ 1,003	$ 999
Assumed			
Affiliate	149	130	90
Non-affiliate	484	505	522
Ceded			
Affiliate	(35)	(33)	(36)
Non-affiliate	(214)	(175)	(188)
Contract benefits, net of reinsurance	$ 1,446	$ 1,430	$ 1,387

The effects of reinsurance on interest credited to contractholder funds for the years ended December 31 are as follows:

($ in millions)	**2018**	**2017**	**2016**
Direct	$ 533	$ 546	$ 598
Assumed			
Affiliate	8	8	9
Non-affiliate	104	131	116
Ceded			
Affiliate	(20)	(21)	(21)
Non-affiliate	(24)	(25)	(25)
Interest credited to contractholder funds, net of reinsurance	$ 601	$ 639	$ 677

Reinsurance recoverables on paid and unpaid benefits as of December 31 are summarized in the following table.

($ in millions)	2018	2017
Annuities	$ 1,369	$ 1,357
Life insurance	1,183	1,243
Other	53	80
Total	$ 2,605	$ 2,680

As of December 31, 2018 and 2017, approximately 78% and 77%, respectively, of the Company's reinsurance recoverables are due from companies rated A- or better by S&P.

10. Deferred Policy Acquisition and Sales Inducement Costs

Deferred policy acquisition costs for the years ended December 31 are as follows:

($ in millions)	2018	2017	2016
Balance, beginning of year	$ 1,156	$ 1,187	$ 1,314
Acquisition costs deferred	78	122	79
Amortization charged to income	(146)	(152)	(134)
Effect of unrealized gains and losses	144	(46)	(72)
Reinsurance assumed from AAC	—	45	—
Balance, end of year	$ 1,232	$ 1,156	$ 1,187

DSI activity, which primarily relates to fixed annuities and interest-sensitive life contracts, for the years ended December 31 was as follows:

($ in millions)	2018	2017	2016
Balance, beginning of year	$ 36	$ 40	$ 45
Sales inducements deferred	—	—	1
Amortization charged to income	(4)	(4)	(5)
Effect of unrealized gains and losses	2	—	(1)
Balance, end of year	$ 34	$ 36	$ 40

11. Guarantees and Contingent Liabilities

Guaranty funds

Under state insurance guaranty fund laws, insurers doing business in a state can be assessed, up to prescribed limits, for certain obligations of insolvent insurance companies to policyholders and claimants. Amounts assessed to each company are typically related to its proportion of business written in each state. The Company's policy is to accrue assessments when the entity for which the insolvency relates has met its state of domicile's statutory definition of insolvency and the amount of the loss is reasonably estimable. In most states, the definition is met with a declaration of financial insolvency by a court of competent jurisdiction. In certain states there must also be a final order of liquidation. Since most states allow a credit against premium or other state related taxes for assessments, an asset is recorded based on paid and accrued assessments for the amount the Company expects to recover on the respective state's tax return and is realized over the period allocated by each state. As of both December 31, 2018 and 2017, the liability balance included in other liabilities and accrued expenses was $4 million. The related premium tax offsets included in other assets were $7 million and $10 million as of December 31, 2018 and 2017, respectively.

Guarantees

Related to the sale of LBL on April 1, 2014, the Company agreed to indemnify Resolution Life Holdings, Inc. in connection with certain representations, warranties and covenants of the Company, and certain liabilities specifically excluded from the transaction, subject to specific contractual limitations regarding the Company's maximum obligation. Management does not believe these indemnifications will have a material effect on results of operations, cash flows or financial position of the Company.

Related to the disposal through reinsurance of substantially all of the Company's variable annuity business to Prudential in 2006, the Company and the Corporation have agreed to indemnify Prudential for certain pre-closing contingent liabilities (including extra-contractual liabilities of the Company and liabilities specifically excluded from the transaction) that the Company has agreed to retain. In addition, the Company and the Corporation will each indemnify Prudential for certain post-closing liabilities that may arise from the acts of the Company and its agents, including certain liabilities arising from the Company's provision of transition services. The reinsurance agreements contain no limitations or indemnifications with regard to insurance risk transfer, and transferred all of the future risks and responsibilities for performance on the underlying variable annuity contracts to Prudential, including those related to benefit guarantees. Management does not believe this agreement will have a material effect on results of operations, cash flows or financial position of the Company.

The aggregate liability balance related to all guarantees was not material as of December 31, 2018.

In the normal course of business, the Company provides standard indemnifications to contractual counterparties in connection with numerous transactions, including acquisitions and divestitures. The types of indemnifications typically provided include indemnifications for breaches of representations and warranties, taxes and certain other liabilities, such as third party lawsuits. The indemnification clauses are often standard contractual terms and are entered into in the normal course of business based on an assessment that the risk of loss would be remote. The terms of the indemnifications vary in duration and nature. In many cases, the maximum obligation is not explicitly stated and the contingencies triggering the obligation to indemnify have not occurred and are not expected to occur. Consequently, the maximum amount of the obligation under such indemnifications is not determinable. Historically, the Company has not made any material payments pursuant to these obligations.

Regulation and compliance

The Company is subject to extensive laws, regulations and regulatory actions. From time to time, regulatory authorities or legislative bodies seek to impose additional regulations regarding agency and broker compensation, regulate the nature of and amount of investments, impose fines and penalties for unintended errors or mistakes, impose additional regulations regarding cybersecurity and privacy, and otherwise expand overall regulation of insurance products and the insurance industry. In addition, the Company is subject to laws and regulations administered and enforced by federal agencies, international agencies, and other organizations, including but not limited to the Securities and Exchange Commission, the Financial Industry Regulatory Authority, and the U.S. Department of Justice. The Company has established procedures and policies to facilitate compliance with laws and regulations, to foster prudent business operations, and to support financial reporting. The Company routinely reviews its practices to validate compliance with laws and regulations and with internal procedures and policies. As a result of these reviews, from time to time the Company may decide to modify some of its procedures and policies. Such modifications, and the reviews that led to them, may be accompanied by payments being made and costs being incurred. The ultimate changes and eventual effects of these actions on the Company's business, if any, are uncertain.

12. Income Taxes

ALIC and its subsidiaries (the "Allstate Life Group") join with the Corporation (the "Allstate Group") in the filing of a consolidated federal income tax return and are party to a federal income tax allocation agreement (the "Allstate Tax Sharing Agreement"). Under the Allstate Tax Sharing Agreement, the Allstate Life Group pays to or receives from the Corporation the amount, if any, by which the Allstate Group's federal income tax liability is affected by virtue of inclusion of the Allstate Life Group in the consolidated federal income tax return. Effectively, this results in the Allstate Life Group's annual income tax provision being computed, with adjustments, as if the Allstate Life Group filed a separate return.

Deferred income taxes result from temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements that will result in taxable or deductible amounts in future years. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in years in which those temporary differences are expected to be recovered or settled. Deferred tax assets and liabilities are adjusted through income tax expense as changes in tax laws or rates are enacted.

Tax Legislation

On December 22, 2017, the Tax Legislation became effective and impacted the Company generally in four areas:

1. Amended the U.S. Internal Revenue Code of 1986, as amended, which among other items, permanently reduced the corporate income tax rate from a maximum of 35% to 21% beginning January 1, 2018. As a result, the corporate tax rate is not comparable between periods.

2. Changed international taxation to a modified territorial tax system whereby U.S. federal income taxes are generally eliminated on dividends from foreign subsidiaries, and certain earnings of controlled foreign corporations are included in U.S. federal taxable income.

3. Contained several other provisions, such as limitations of deductibility of executive compensation, meals and entertainment and lobbying expenses and changes to the dividends received deduction.

4. Affected the timing of certain tax deductions for reserves and deferred acquisition costs, but does not impact the Company's overall income tax expense.

The Company recorded a net tax benefit of $514 million, recognized as a reduction to income tax expense in the Company's Consolidated Statements of Operations and Comprehensive Income for the year ended December 31, 2017. The net benefit was primarily due to re-measurement of the Company's deferred tax assets and liabilities from 35% to 21% partially offset by the impact of the transition tax on deemed repatriation of deferred non-U.S. income. The Company's effective income tax rate benefit for 2017 was 38.7% and included this one-time benefit of 71.8%.

During 2018, the impact of the Tax Legislation was adjusted from the Company's preliminary estimates due to, among other things, changes in interpretations and assumptions the Company previously made, guidance that was issued and actions the Company took as a result of the Tax Legislation, resulting in a net tax benefit of $53 million, recognized as a reduction to income tax expense in the Company's Consolidated Statements of Operations and Comprehensive Income. The accounting for income tax effects of the Tax Legislation has been completed.

The Internal Revenue Service ("IRS") is currently examining the Allstate Group's 2015 and 2016 federal income tax returns, with the 2017 tax year exam scheduled to begin mid-2019. The 2015-2017 cycle is expected to be completed in 2020. The 2013 and 2014 federal income tax return audit is complete through the exam phase and the Allstate Group will progress to the appeals process for one unagreed issue in 2019. Any adjustments that may result from IRS examinations of the Allstate Group's tax returns are not expected to have a material effect on the consolidated financial statements.

The Company recognizes tax positions in the consolidated financial statements only when it is more likely than not that the position will be sustained on examination by the relevant taxing authority based on the technical merits of the position. A position that meets this standard is measured at the largest amount of benefit that will more likely than not be realized on settlement. A liability is established for differences between positions taken in a tax return and amounts recognized in the consolidated financial statements.

The Company had $14 million, $2 million and $1 million liability for unrecognized tax benefits as of December 31, 2018, 2017 and 2016, respectively. The change in the liability for unrecognized tax benefits in 2018 related to the increase for tax positions taken in the current year. The change in the liability for unrecognized tax benefits in 2017 related to the increase for tax positions taken in a prior year. The Company believes it is reasonably possible that a decrease of up to $2 million in unrecognized tax benefits may occur within the next twelve months due to IRS settlements.

The components of the deferred income tax assets and liabilities as of December 31 are as follows:

($ in millions)	2018	2017
Deferred tax assets		
Deferred reinsurance gain	$ 7	$ 8
Other assets	1	2
Total deferred tax assets	8	10
Deferred tax liabilities		
Life and annuity reserves	(223)	(269)
DAC	(201)	(221)
Investments	(131)	(79)
Unrealized net capital gains	(65)	(223)
Other liabilities	(51)	(54)
Total deferred tax liabilities	(671)	(846)
Net deferred tax liability	$ (663)	$ (836)

Although realization is not assured, management believes it is more likely than not that the deferred tax assets will be realized based on the Company's assessment that the deductions ultimately recognized for tax purposes will be fully utilized.

The components of income tax expense (benefit) for the years ended December 31 are as follows:

($ in millions)	2018	2017	2016
Current	$ 116	$ 104	$ 24
Deferred	(99)	(382)	120
Total income tax expense (benefit)	$ 17	$ (278)	$ 144

The Company paid taxes of $30 million in 2018 and received refunds of $1 million and $22 million in 2017 and 2016, respectively. The Company had current income tax payable of $78 million and $56 million as of December 31, 2018 and 2017, respectively.

A reconciliation of the statutory federal income tax rate to the effective income tax rate on income from operations for the years ended December 31 is as follows:

	2018	2017	2016
Statutory federal income tax rate - expense	21.0 %	35.0 %	35.0 %
Tax Legislation benefit	(14.0)	(71.8)	—
Tax credits	(3.2)	(1.7)	(3.3)
Dividends received deduction	(0.7)	(0.6)	(1.3)
Adjustments to prior year tax liabilities	(0.3)	(0.3)	—
State income taxes	1.5	0.6	0.3
Non-deductible expenses	—	0.1	0.2
Other	0.1	—	0.1
Effective income tax rate expense (benefit)	4.4 %	(38.7)%	31.0 %

13. Capital Structure

Debt outstanding

All of the Company's outstanding debt as of December 31, 2018 and 2017 relates to intercompany obligations. These obligations reflect notes due to related parties and are discussed in Note 4. The Company paid $5 million, $6 million and $15 million of interest on debt in 2018, 2017 and 2016, respectively.

The Company had $62 million and $34 million of investment-related debt that is reported in other liabilities and accrued expenses as of December 31, 2018 and 2017, respectively.

14. Statutory Financial Information and Dividend Limitations

ALIC and its insurance subsidiaries prepare their statutory-basis financial statements in conformity with accounting practices prescribed or permitted by the insurance department of the applicable state of domicile. Prescribed statutory accounting practices include a variety of publications of the National Association of Insurance Commissioners ("NAIC"), as well as state laws, regulations and general administrative rules. Permitted statutory accounting practices encompass all accounting practices not so prescribed.

All states require domiciled insurance companies to prepare statutory-basis financial statements in conformity with the NAIC Accounting Practices and Procedures Manual, subject to any deviations prescribed or permitted by the applicable insurance commissioner and/or director. Statutory accounting practices differ from GAAP primarily since they require charging policy acquisition and certain sales inducement costs to expense as incurred, establishing life insurance reserves based on different actuarial assumptions, and valuing certain investments and establishing deferred taxes on a different basis.

Statutory net income of ALIC and its insurance subsidiaries was $410 million, $279 million and $192 million in 2018, 2017 and 2016, respectively. Statutory capital and surplus was $3.47 billion and $3.41 billion as of December 31, 2018 and 2017, respectively.

Dividend Limitations

The ability of ALIC to pay dividends is dependent on business conditions, income, cash requirements and other relevant factors. The payment of shareholder dividends by ALIC to AIC without the prior approval of the Illinois Department of Insurance ("IL DOI") is limited to formula amounts based on net income and capital and surplus, determined in conformity with statutory accounting practices, as well as the timing and amount of dividends paid in the preceding twelve months. The Company paid dividends of $250 million in 2018. The maximum amount of dividends ALIC will be able to pay without prior IL DOI approval at a given point in time during 2019 is $347 million, less dividends paid during the preceding twelve months measured at that point in time. The payment of a dividend in excess of this amount requires 30 days advance written notice to the IL DOI. The dividend is deemed approved, unless the IL DOI disapproves it within the 30 day notice period. Additionally, any dividend must be paid out of unassigned surplus excluding unrealized appreciation from investments, which for ALIC totaled $323 million as of December 31, 2018, and cannot result in capital and surplus being less than the minimum amount required by law.

ALIC may receive dividends from time to time from its insurance subsidiaries. The ability of these insurance subsidiaries to pay dividends is generally dependent on business conditions, income, cash requirements, and other relevant factors. The maximum amount of dividends insurance subsidiaries can pay to ALIC without prior DOI approval at any given point during 2019 is $64 million. ALIC did not receive dividends from its insurance subsidiaries during 2018 or 2017.

Under state insurance laws, insurance companies are required to maintain paid up capital of not less than the minimum capital requirement applicable to the types of insurance they are authorized to write. Insurance companies are also subject to risk-based capital ("RBC") requirements adopted by state insurance regulators. A company's "authorized control level RBC" is calculated using various factors applied to certain financial balances and activity. Companies that do not maintain adjusted statutory capital and surplus at a level in excess of the company action level RBC, which is two times authorized control level RBC, are required to take specified actions. Company action level RBC is significantly in excess of the minimum capital requirements. Total adjusted statutory capital and surplus and authorized control level RBC of ALIC were $3.90 billion and $680 million, respectively, as of December 31, 2018. ALIC's insurance subsidiaries are included as a component of ALIC's total statutory capital and surplus.

Intercompany transactions

Notification and approval of intercompany lending activities is also required by the IL DOI when ALIC does not have unassigned surplus and for transactions that exceed a level that is based on a formula using statutory admitted assets and statutory surplus.

15. Benefit Plans

Pension and other postretirement plans

Defined benefit pension plans, sponsored by the Corporation, cover most full-time employees, certain part-time employees and employee-agents. Benefits under the pension plans are based upon the employee's length of service and eligible annual compensation. The cost allocated to the Company for the pension plans was $2 million, $7 million and $7 million in 2018, 2017 and 2016, respectively.

The Corporation has reserved the right to modify or terminate its benefit plans at any time and for any reason.

Allstate 401(k) Savings Plan

Employees of AIC are eligible to become members of the Allstate 401(k) Savings Plan ("Allstate Plan"). The Corporation's contributions are based on the Corporation's matching obligation and certain performance measures. The cost allocated to the Company for the Allstate Plan was $5 million, $4 million and $4 million in 2018, 2017 and 2016, respectively.

16. Other Comprehensive Income

The components of other comprehensive (loss) income on a pre-tax and after-tax basis for the years ended December 31 are as follows:

($ in millions)	2018			2017			2016		
	Pre-tax	Tax	After-tax	Pre-tax	Tax	After-tax	Pre-tax	Tax	After-tax
Unrealized net holding gains and losses arising during the period, net of related offsets	$ (483)	$ 101	$ (382)	$ 51	$ (18)	$ 33	$ 134	$ (46)	$ 88
Less: reclassification adjustment of realized capital gains and losses	(35)	7	(28)	43	(15)	28	(100)	35	(65)
Unrealized net capital gains and losses	(448)	94	(354)	8	(3)	5	234	(81)	153
Unrealized foreign currency translation adjustments	—	—	—	17	(6)	11	6	(2)	4
Other comprehensive (loss) income	$ (448)	$ 94	$ (354)	$ 25	$ (9)	$ 16	$ 240	$ (83)	$ 157

17. Quarterly Results (unaudited)

($ in millions)	First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
	2018	2017	2018	2017	2018	2017	2018	2017
Revenues	$ 736	$ 762	$ 783	$ 826	$ 787	$ 813	$ 541	$ 858
Net income [1]	90	86	134	120	193	140	(52)	650

[1] Net income includes a tax benefit of $53 million and $514 million related to Tax Legislation in the third quarter 2018 and fourth quarter 2017, respectively.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholder of
Allstate Life Insurance Company
Northbrook, Illinois 60062

Opinion on the Financial Statements

We have audited the accompanying Consolidated Statements of Financial Position of Allstate Life Insurance Company and subsidiaries (the “Company”), an affiliate of The Allstate Corporation, as of December 31, 2018 and 2017, and the related Consolidated Statements of Operations and Comprehensive Income, Shareholder’s Equity, and Cash Flows for each of the three years in the period ended December 31, 2018, and the related notes and the schedules listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Change in Adopted Accounting Principle

As discussed in Note 2 to the financial statements, the Company changed its presentation and method of accounting for the recognition and measurement of financial assets and financial liabilities on January 1, 2018, due to the adoption of FASB Accounting Standards Update No. 2016-01, *Financial Instruments - Overall (Subtopic 825-10)*.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois
February 22, 2019

We have served as the Company's auditor since 2001.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures. We maintain disclosure controls and procedures as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934. Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based upon this evaluation, the principal executive officer and the principal financial officer concluded that our disclosure controls and procedures are effective in providing reasonable assurance that material information required to be disclosed in our reports filed with or submitted to the Securities and Exchange Commission under the Securities Exchange Act is recorded, processed, summarized and reported within the time periods specified by the Securities Exchange Act and made known to management, including the principal executive officer and the principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting. Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2018 based on the criteria related to internal control over financial reporting described in "Internal Control – Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2018.

Changes in Internal Control over Financial Reporting. During the fiscal quarter ended December 31, 2018, there have been no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 14. Principal Accounting Fees and Services

(1), (2), (3) and (4) Disclosure of fees -

The following fees have been, or are anticipated to be billed by Deloitte & Touche LLP, the member firms of Deloitte & Touche Tohmatsu, and their respective affiliates, for professional services rendered to us for the fiscal years ending December 31, 2018 and 2017.

	2018	2017[b]
Audit fees [a]	$ 2,476,000	$ 2,409,000
Total fees	$ 2,476,000	$ 2,409,000

(a) Fees for audits of annual financial statements, reviews of quarterly financial statements, statutory audits, attest services, comfort letters, consents, and review of documents filed with the Securities and Exchange Commission. The amount disclosed does not reflect reimbursed audit fees received from third-party reinsurers in the amounts of $158,000 and $189,000 for 2018 and 2017, respectively.

(b) Total fees for 2017 have been adjusted to reflect actual expenditures.

(5)(i) and (ii) Audit Committee's pre-approval policies and procedures -

The Audit Committees of The Allstate Corporation and Allstate Life Insurance Company have adopted a policy regarding pre-approval of all audit and permissible non-audit services provided by the independent registered public accountant. The policy identifies the basic principles that must be considered by the Audit Committee in approving services to ensure that the registered public accountant's independence is not impaired, describes the type of audit, audit-related, tax and other services that may be provided, and lists the non-audit services that may not be performed. The independent registered public accountant or management will submit to the Audit Committee detailed schedules with all of the proposed services within each category, together with the estimated fees. Each specific service will require approval before the service can begin. Prior to requesting approval from the Audit Committee, the registered public accountant and management consider and conclude that the services are permissible in that they: (1) do not place the registered public accountant in the position of auditing their own work, (2) do not result in the registered public accountant's personnel acting as management or an employee of Allstate, (3) do not place the registered public accountant in a position of being an advocate for Allstate, (4) do not create a mutual or conflicting interest between the registered public accountant and Allstate and (5) are not based on a contingent fee arrangement. The Audit Committee's policy delegates to the chair the authority to grant approvals, but the decisions of the chair must be reported to the Audit Committee at its next regularly scheduled meeting. All services provided by Deloitte & Touche LLP in 2018 and 2017 were approved in accordance with the pre-approval policy by The Allstate Corporation and Allstate Life Audit Committees.

Part IV

Item 15. (a) (1) Exhibits and Financial Statement Schedules.

The following consolidated financial statements, notes thereto and related information of Allstate Life Insurance Company (the "Company") are included in Item 8.

Consolidated Statements of Operations and Comprehensive Income
Consolidated Statements of Financial Position
Consolidated Statements of Shareholder's Equity
Consolidated Statements of Cash Flows
Notes to the Consolidated Financial Statements
Report of Independent Registered Public Accounting Firm

Item 15. (a) (2)

The following additional financial statement schedules are furnished herewith pursuant to the requirements of Form 10-K.

Allstate Life Insurance Company		**Page**
Schedules required to be filed under the provisions of Regulation S-X Article 7:		
Schedule I	Summary of Investments - Other than Investments in Related Parties	S-1
Schedule IV	Reinsurance	S-2
Schedule V	Valuation Allowances and Qualifying Accounts	S-3

All other schedules are omitted because they are not applicable, or not required, or because the required information is included in the Consolidated Financial Statements or in notes thereto.

Item 15. (a) (3)

The following is a list of the exhibits filed as part of this Form 10-K.

		Incorporated by Reference				
Exhibit Number	**Exhibit Description**	**Form**	**File Number**	**Exhibit**	**Filing Date**	**Filed or Furnished Herewith**
3(i)	Articles of Amendment to the Articles of Incorporation of Allstate Life Insurance Company dated December 29, 1999.	10	000-31248	3.1	April 24, 2002	
3(ii)	Amended and Restated By-Laws of Allstate Life Insurance Company effective March 15, 2007.	8-K	000-31248	3(ii)	March 20, 2007	
4	See Exhibits 3 (i) and 3 (ii).					
10.1	Credit Agreement dated April 27, 2012 among The Allstate Corporation, Allstate Insurance Company and Allstate Life Insurance Company, as Borrowers; the Lenders party thereto, Wells Fargo Bank, National Association, as Syndication Agent; Citibank, N.A. and Bank of America, N.A., as Documentation Agents; and JPMorgan Chase Bank, N.A., as Administrative Agent.	10-Q	1-11840	10.6	May 2, 2012	
10.2	Amendment No. 1 to Credit Agreement dated as of April 27, 2014	8-K	1-11840	10.1	April 29, 2014	
10.3	Intercompany Loan Agreement among The Allstate Corporation, Allstate Life Insurance Company, and other certain subsidiaries of The Allstate Corporation effective February 1, 1996.	10-K	000-31248	10.24	March 13, 2007	
10.4	Amended and Restated Intercompany Liquidity Agreement between Allstate Insurance Company, Allstate Life Insurance Company and The Allstate Corporation effective as of May 8, 2008.	10-Q	000-31248	10.2	May 14, 2008	
10.5	Revolving Loan Credit Agreement, effective December 20, 2010 between American Heritage Life Insurance Company and Road Bay Investments, LLC.	8-K	000-31248	10.1	December 27, 2010	

10.6	Pledge and Security Agreement, dated as of December 20, 2010, between Road Bay Investments, LLC and American Heritage Life Insurance Company securing obligations under the Revolving Loan Credit Agreement.	8-K	000-31248	10.2	December 27, 2010	
10.7	Capital Support Agreement between Allstate Life Insurance Company and Allstate Insurance Company effective December 14, 2007.	8-K	000-31248	10.1	February 7, 2008	
10.8	Form of Amended and Restated Service and Expense Agreement among Allstate Insurance Company, The Allstate Corporation and certain affiliates effective January 1, 2004.	10-K	000-31248	10.1	March 17, 2008	
10.9	Form of Amendment No. 1 effective January 1, 2009 to Amended and Restated Service and Expense Agreement among Allstate Insurance Company, The Allstate Corporation and certain affiliates dated as of January 1, 2009.	8-K	000-31248	10.1	February 17, 2010	
10.10	Letter Agreement among Allstate Insurance Company, The Allstate Corporation and certain affiliates, including Allstate Life Insurance Company, effective December 1, 2007.	8-K	000-31248	10.1	May 23, 2008	
10.11	Addendum among Allstate Insurance Company and certain affiliates dated August 17, 2011 to Amended and Restated Service and Expense Agreement among Allstate Insurance Company, The Allstate Corporation and certain affiliates effective as of January 1, 2004, as amended by amendment No. 1 effective as of January 1, 2009.	10-K	000-31248	10.20	March 8, 2012	
10.12	New York Insurer Supplement to Amended and Restated Service and Expense Agreement among Allstate Insurance Company, The Allstate Corporation, Allstate Life Insurance Company of New York and Intramerica Life Insurance Company, effective March 5, 2005.	10-Q	000-31248	10.2	August 8, 2005	
10.13	Limited Servicing Agreement among Allstate Life Insurance Company, Allstate Distributors, L.L.C. and Allstate Financial Services, LLC effective October 1, 2002.	10-K	000-31248	10.40	March 17, 2008	
10.14	Form of Investment Management Agreement among Allstate Investment Management Company, The Allstate Corporation and certain affiliates effective February 1, 2012.	8-K	000-31248	10.1	February 7, 2012	
10.15	Form of Investment Management Agreement among Allstate Investments, LLC, Allstate Insurance Company, The Allstate Corporation and certain affiliates effective January 1, 2007.	10-K	000-31248	10.12	March 17, 2008	
10.16	Investment Advisory Agreement and Amendment to Service Agreement as of January 1, 2002 between Allstate Insurance Company, Allstate Investments, LLC and Allstate Life Insurance Company of New York.	10	000-31248	10.31	April 24, 2002	
10.17	Investment Management Agreement between Allstate Investments, LLC and ALIC Reinsurance Company, effective July 1, 2005.	10-Q	000-31248	10.1	November 7, 2005	
10.18	Investment Management Agreement between Allstate Investments, LLC and ALIC Reinsurance Company effective as of March 31, 2008.	8-K	000-31248	10.1	December 23, 2008	
10.19	Assignment & Delegation of Administrative Services Agreements, Underwriting Agreements, and Selling Agreements entered into as of September 1, 2011 between ALFS, Inc., Allstate Life Insurance Company, Allstate Life Insurance Company of New York, Allstate Distributors, L.L.C., Intramerica Life Insurance Company, and Allstate Financial Services, LLC.	8-K	000-31248	10.1	September 1, 2011	
10.20	Selling Agreement by and among Allstate Life Insurance Company, Allstate Distributors, L.L.C. (ALFS, Inc., f/k/a Allstate Life Financial Services, Inc., merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC (f/k/a LSA Securities, Inc.) effective July 26, 1999.	10-K	000-31248	10.6	March 26, 2004	

10.21	Amendment effective August 1, 1999 to Selling Agreement between Allstate Life Insurance Company, Allstate Distributors, L.L.C. (ALFS, Inc. merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC effective July 26, 1999.	10-Q	000-31248	10.1	November 10, 2004	
10.22	Amendment effective September 28, 2001 to Selling Agreement between Allstate Life Insurance Company, Allstate Distributors, L.L.C. (ALFS, Inc. merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC effective July 26, 1999.	10-Q	000-31248	10.2	November 10, 2004	
10.23	Amendment effective February 15, 2002 to Selling Agreement between Allstate Life Insurance Company, Allstate Distributors, L.L.C. (ALFS, Inc. merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC effective July 26, 1999.	10-Q	000-31248	10.3	November 10, 2004	
10.24	Amendment effective April 21, 2003 to Selling Agreement between Allstate Life Insurance Company, Allstate Distributors, L.L.C. (ALFS, Inc. merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC effective July 26, 1999.	10-Q	000-31248	10.4	November 10, 2004	
10.25	Selling Agreement and Addenda to Agreement between Allstate Life Insurance Company as successor in interest to Glenbrook Life and Annuity Company, Allstate Distributors, L.L.C. (ALFS, Inc. merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC effective May 17, 2001, December 31, 2001 and November 18, 2002, respectively.	10-K	000-31248	10.39	March 17, 2008	
10.26	Selling Agreement by and among Allstate Life Insurance Company of New York, Allstate Distributors, L.L.C. (ALFS, Inc. merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC effective May 1, 2005.	10-K	000-31248	10.7	March 26, 2004	
10.27	Selling Agreement by and between Lincoln Benefit Life Company, Allstate Distributors, L.L.C. (ALFS, Inc. merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC effective August 2, 1999.	10-K	000-31248	10.8	March 26, 2004	
10.28	Marketing Coordination and Administrative Services Agreement among Allstate Insurance Company, Allstate Life Insurance Company and Allstate Financial Services, LLC effective January 1, 2003.	10-K	000-31248	10.9	March 26, 2004	
10.29	First Amendment to Marketing Coordination and Administrative Services Agreement by and among Allstate Life Insurance Company, Allstate Financial Services, LLC and Allstate Insurance Company effective January 1, 2006.	10-Q	000-31248	10.1	August 8, 2006	
10.30	Marketing Agreement by and among Allstate Life Insurance Company as successor in interest to Glenbrook Life and Annuity Company, Allstate Distributors, L.L.C. (ALFS, Inc. merged with and into Allstate Distributors, L.L.C. effective September 1, 2011) and Allstate Financial Services, LLC effective June 10, 2003.	10-K	000-31248	10.41	March 17, 2008	
10.31	Reinsurance and Administrative Services Agreement by and between American Heritage Life Insurance Company and Columbia Universal Life Insurance Company effective February 1, 1998.	8-K	000-31248	10.3	January 30, 2008	
10.32	Novation and Assignment Agreement by and among Allstate Life Insurance Company, American Heritage Life Insurance Company and Columbia Universal Life Insurance Company effective June 30, 2004.	8-K	000-31248	10.2	January 30, 2008	
10.33	Amendment to Reinsurance Agreement effective December 1, 2007, by and between American Heritage Life Insurance Company and Allstate Life Insurance Company.	8-K	000-31248	10.1	January 30, 2008	
10.34	Reinsurance Agreement between Allstate Life Insurance Company and American Heritage Life Insurance Company effective December 31, 2004.	8-K	000-31248	10.2	January 9, 2008	

10.35	Amendment No. 1 dated as of January 1, 2008 to Reinsurance Agreement between Allstate Life Insurance Company and American Heritage Life Insurance Company effective December 31, 2004.	8-K	000-31248	10.1	January 9, 2008	
10.36	Amendment No. 2 dated and effective as of April 1, 2011 to Reinsurance Agreement between Allstate Life Insurance Company and American Heritage Life Insurance Company effective December 31, 2004.	10-Q	000-31248	10.4	August 5, 2011	
10.37	Retrocessional Reinsurance Agreement between Allstate Life Insurance Company and American Heritage Life Insurance Company effective December 31, 2004.	10-K	000-31248	10.23	March 16, 2005	
10.38	Reinsurance Agreement effective October 1, 2008 between American Heritage Life Insurance Company and Allstate Life Insurance Company.	8-K	000-31248	10.1	October 28, 2008	
10.39	Reinsurance Agreement effective July 1, 2010 between Allstate Life Insurance Company and American Heritage Life Insurance Company.	8-K	000-31248	10.1	July 15, 2010	
10.40	Amendment No. 1 dated and effective as of July 18, 2011 to Reinsurance Agreement effective July 1, 2010 between Allstate Life Insurance Company and American Heritage Life Insurance Company.	10-Q	000-31248	10.3	August 5, 2011	
10.41	Form of Tax Sharing Agreement by and among The Allstate Corporation and certain affiliates dated as of November 12, 1996.	10-K	000-31248	10.24	March 17, 2008	
10.42	Agreement for the Settlement of State and Local Tax Credits among Allstate Insurance Company and certain of its affiliates, including Allstate Life Insurance Company effective January 1, 2007.	8-K	000-31248	10.1	February 21, 2008	
10.43	Amended and Restated Reinsurance Agreement, dated April 1, 2014, between the Registrant and Lincoln Benefit Life Company	8-K	1-11840	10.1	April 7, 2014	
10.44	Reinsurance Agreement between the Registrant and Allstate Assurance Company effective April 1, 2015	10-Q	000-31248	10.1	May 7, 2015	
10.45	Surplus Note between the Registrant and Allstate Assurance Company dated December 2, 2016	8-K	000-31248	10.1	December 7, 2016	
10.46	Reinsurance Agreement between the Registrant and Allstate Assurance Company dated January 19, 2017	8-K	000-31248	10.1	January 25, 2017	
23	Consent of Independent Registered Public Accounting Firm					X
31(i)	Rule 13a-14(a) Certification of Principal Executive Officer					X
31(i)	Rule 13a-14(a) Certification of Principal Financial Officer					X
32	Section 1350 Certifications					X
99	The Allstate Corporation Policy Regarding Pre-Approval of Independent Registered Public Accountant's Services effective February 23, 2009.	10-K	000-31248	99	March 19, 2009	
101.INS	XBRL Instance Document					X
101.SCH	XBRL Taxonomy Extension Schema					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase					X
101.LAB	XBRL Taxonomy Extension Label Linkbase					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase					X

Item 15. (b)

The exhibits are listed in Item 15. (a)(3) above.

Item 15. (c)

The financial statement schedules are listed in Item 15. (a)(2) above.

Item 16.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ALLSTATE LIFE INSURANCE COMPANY
(Registrant)

/s/ Eric K. Ferren

By: Eric K. Ferren
Senior Vice President and Controller
February 22, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Steven E. Shebik Steven E. Shebik	Chief Executive Officer and a Director (Principal Executive Officer)	February 22, 2019
/s/ Mario Imbarrato Mario Imbarrato	Vice President, Chief Financial Officer and a Director (Principal Financial Officer)	February 22, 2019
/s/ Eric K. Ferren Eric K. Ferren	Senior Vice President and Controller (Principal Accounting Officer)	February 22, 2019
/s/ Thomas J. Wilson Thomas J. Wilson	Chairman of the Board and a Director	February 22, 2019
/s/ Brian R. Bohaty Brian R. Bohaty	Director	February 22, 2019
/s/ John E. Dugenske John E. Dugenske	Director	February 22, 2019
/s/ Angela K. Fontana Angela K. Fontana	Director	February 22, 2019
/s/ Mary Jane Fortin Mary Jane Fortin	Director	February 22, 2019
/s/ Katherine A. Mabe Katherine A. Mabe	Director	February 22, 2019
/s/ Jesse E. Merten Jesse E. Merten	Director	February 22, 2019
/s/ Julie Parsons Julie Parsons	Director	February 22, 2019
/s/ Samuel H. Pilch Samuel H. Pilch	Director	February 22, 2019
/s/ Mario Rizzo Mario Rizzo	Director	February 22, 2019
/s/ P. John Rugel P. John Rugel	Director	February 22, 2019
/s/ Glenn T. Shapiro Glenn T. Shapiro	Director	February 22, 2019
/s/ Brian P. Stricker Brian P. Stricker	Director	February 22, 2019

ALLSTATE LIFE INSURANCE COMPANY AND SUBSIDIARIES
SCHEDULE I - SUMMARY OF INVESTMENTS
OTHER THAN INVESTMENTS IN RELATED PARTIES
DECEMBER 31, 2018

($ in millions)	**Cost/ amortized cost**	**Fair value**	**Amount at which shown in the Balance Sheet**
Type of investment			
Fixed maturities:			
Bonds:			
United States government, government agencies and authorities	$ 740	$ 773	$ 773
States, municipalities and political subdivisions	1,997	2,195	2,195
Foreign governments	170	179	179
Public utilities	3,302	3,443	3,443
All other corporate bonds	14,219	14,130	14,130
Asset-backed securities	429	429	429
Residential mortgage-backed securities	154	197	197
Commercial mortgage-backed securities	33	40	40
Redeemable preferred stocks	13	14	14
Total fixed maturities	21,057	$ 21,400	21,400
Equity securities:			
Common stocks:			
Public utilities	21	$ 26	26
Banks, trusts and insurance companies	101	120	120
Industrial, miscellaneous and all other	1,048	1,153	1,153
Nonredeemable preferred stocks	27	26	26
Total equity securities	1,197	$ 1,325	1,325
Mortgage loans on real estate	3,995	$ 4,028	3,995
Real estate (none acquired in satisfaction of debt)	228		228
Policy loans	561		561
Derivative instruments	23	$ 23	23
Limited partnership interests	3,292		3,292
Other long-term investments	1,049		1,049
Short-term investments	810	$ 810	810
Total investments	$ 32,212		$ 32,683

ALLSTATE LIFE INSURANCE COMPANY AND SUBSIDIARIES
SCHEDULE IV - REINSURANCE

($ in millions)	Gross amount	Ceded to other companies [1]	Assumed from other companies	Net amount	Percentage of amount assumed to net
Year ended December 31, 2018					
Life insurance in force	$ 113,202	$ 83,166	$ 301,316	$ 331,352	90.9%
Premiums and contract charges:					
Life insurance	$ 679	$ 308	$ 906	$ 1,277	70.9%
Accident and health insurance	64	18	76	122	62.3%
Total premiums and contract charges	$ 743	$ 326	$ 982	$ 1,399	70.2%
Year ended December 31, 2017					
Life insurance in force	$ 114,354	$ 89,603	$ 321,331	$ 346,082	92.8%
Premiums and contract charges:					
Life insurance	$ 677	$ 320	$ 925	$ 1,282	72.2%
Accident and health insurance	57	20	74	111	66.7%
Total premiums and contract charges	$ 734	$ 340	$ 999	$ 1,393	71.7%
Year ended December 31, 2016					
Life insurance in force	$ 115,034	$ 94,041	$ 291,256	$ 312,249	93.3%
Premiums and contract charges:					
Life insurance	$ 675	$ 325	$ 869	$ 1,219	71.3%
Accident and health insurance	40	22	72	90	80.0%
Total premiums and contract charges	$ 715	$ 347	$ 941	$ 1,309	71.9%

(1) No reinsurance or coinsurance income was netted against premium ceded in 2018, 2017 or 2016.

ALLSTATE LIFE INSURANCE COMPANY AND SUBSIDIARIES
SCHEDULE V - VALUATION ALLOWANCES AND QUALIFYING ACCOUNTS

($ in millions)		Additions			
Description	Balance as of beginning of period	Charged to costs and expenses	Other additions	Deductions	Balance as of end of period
Year ended December 31, 2018					
Allowance for estimated losses on mortgage loans	$ 3	$ —	$ —	$ —	$ 3
Year ended December 31, 2017					
Allowance for estimated losses on mortgage loans	$ 3	$ 1	$ —	$ 1	$ 3
Year ended December 31, 2016					
Allowance for estimated losses on mortgage loans	$ 3	$ —	$ —	$ —	$ 3

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following registration statements of our report dated February 22, 2019, relating to the financial statements and financial statement schedules of Allstate Life Insurance Company, appearing in this Annual Report on Form 10-K of Allstate Life Insurance Company for the year ended December 31, 2018 (which report expresses an unmodified opinion and includes an emphasis-of-matter paragraph relating to a change in accounting principle for the recognition and measurement of financial assets and financial liabilities), and to the reference to us under the heading "Experts" in the Prospectus, which is part of the registration statements.

Form S-3 Registration Statement Nos.	**Form N-4 Registration Statement Nos.**
333-220830	333-102934
333-220831	333-114560
333-220837	333-114561
333-220835	333-114562
333-220836	333-121687
333-220832	333-121691
333-220580	333-121692
333-220569	333-121693
333-220570	333-121695
333-220606	
333-220605	
333-220581	

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois
February 22, 2019

CERTIFICATIONS **EXHIBIT 31 (i)**

I, Steven E. Shebik, certify that:

1. I have reviewed this report on Form 10-K of Allstate 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) 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: February 22, 2019

/s/ Steven E. Shebik

Steven E. Shebik

Chief Executive Officer

CERTIFICATIONS **EXHIBIT 31 (i)**

I, Mario Imbarrato, certify that:

1. I have reviewed this report on Form 10-K of Allstate 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) 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: February 22, 2019

/s/ Mario Imbarrato

Mario Imbarrato

Vice President and Chief Financial Officer

EXHIBIT 32

SECTION 1350 CERTIFICATIONS

Each of the undersigned hereby certifies that to his knowledge the report on Form 10-K for the fiscal year ended December 31, 2018 of Allstate Life Insurance Company filed with the Securities and Exchange Commission fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in such report fairly presents, in all material respects, the financial condition and result of operations of Allstate Life Insurance Company.

Date: February 22, 2019

/s/ Steven E. Shebik

Steven E. Shebik

Chief Executive Officer

/s/ Mario Imbarrato

Mario Imbarrato

Vice President and Chief Financial Officer