KANSAS CITY LIFE INSURANCE COMPANY

2017 ANNUAL REPORT

KANSAS CITY LIFE INSURANCE COMPANY

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Financial Information

Amounts in thousands, except share data, security counts, claims counts, or as otherwise noted.

Kansas City Life Insurance Company
Consolidated Balance Sheets

	December 31	
	2017	2016
ASSETS		
Investments:		
Fixed maturity securities available for sale, at fair value (amortized cost: 2017 - $2,442,488; 2016 - $2,438,718)	$ 2,535,064	$ 2,530,907
Equity securities available for sale, at fair value (amortized cost: 2017 - $19,236; 2016 - $23,289)	20,770	23,996
Mortgage loans	649,542	630,889
Real estate	193,219	195,621
Policy loans	78,175	79,893
Short-term investments	32,195	27,526
Other investments	2,424	1,388
Total investments	3,511,389	3,490,220
Cash	9,504	9,630
Accrued investment income	31,119	31,586
Deferred acquisition costs	277,182	271,089
Reinsurance recoverables	185,647	187,941
Property and equipment	10,493	15,853
Other assets	85,524	69,838
Separate account assets	419,812	373,256
Total assets	$ 4,530,670	$ 4,449,413
LIABILITIES		
Future policy benefits	$ 953,239	$ 943,643
Policyholder account balances	2,051,311	2,051,728
Policy and contract claims	36,503	34,553
Other policyholder funds	172,850	178,806
Other liabilities	159,800	181,844
Separate account liabilities	419,812	373,256
Total liabilities	3,793,515	3,763,830
STOCKHOLDERS' EQUITY		
Common stock, par value $1.25 per share		
Authorized 36,000,000 shares, issued 18,496,680 shares	23,121	23,121
Additional paid in capital	41,025	41,025
Retained earnings	908,022	868,054
Accumulated other comprehensive income (loss)	6,288	(5,316)
Treasury stock, at cost (2017 and 2016 - 8,813,266 shares)	(241,301)	(241,301)
Total stockholders’ equity	737,155	685,583
Total liabilities and stockholders’ equity	$ 4,530,670	$ 4,449,413

See accompanying Notes to Consolidated Financial Statements

Kansas City Life Insurance Company
Consolidated Statements of Comprehensive Income

	Year Ended December 31		
	2017	2016	2015
REVENUES			
Insurance revenues:			
Net premiums	$ 179,936	$ 171,819	$ 160,175
Contract charges	114,017	111,134	112,030
Total insurance revenues	293,953	282,953	272,205
Investment revenues:			
Net investment income	145,825	150,608	157,150
Net realized investment gains, excluding other-than-temporary impairment losses	4,518	5,509	6,248
Net impairment losses recognized in earnings:			
Total other-than-temporary impairment losses	—	(563)	(2,189)
Portion of impairment losses recognized in other comprehensive income (loss)	(7)	(57)	(292)
Net other-than-temporary impairment losses recognized in earnings	(7)	(620)	(2,481)
Total investment revenues	150,336	155,497	160,917
Other revenues	6,413	6,572	7,729
Total revenues	450,702	445,022	440,851
BENEFITS AND EXPENSES			
Policyholder benefits	210,799	211,866	198,721
Interest credited to policyholder account balances	72,921	72,814	74,326
Amortization of deferred acquisition costs	34,721	27,833	28,348
Operating expenses	102,892	101,465	97,260
Total benefits and expenses	421,333	413,978	398,655
Income before income tax expense (benefit)	29,369	31,044	42,196
Income tax expense (benefit)	(22,172)	8,728	12,970
NET INCOME	$ 51,541	$ 22,316	$ 29,226
COMPREHENSIVE INCOME (LOSS), NET OF TAXES			
Change in net unrealized gains (losses) on securities available for sale [1]	$ 2,042	$ (288)	$ (43,803)
Change in future policy benefits	1,942	(1,960)	4,913
Change in policyholder account balances	66	(10)	276
Change in benefit plan obligations	6,439	12,152	364
Other comprehensive income (loss)	10,489	9,894	(38,250)
COMPREHENSIVE INCOME (LOSS)	$ 62,030	$ 32,210	$ (9,024)
Basic and diluted earnings per share:			
Net income	$ 5.32	$ 2.30	$ 2.75

[1] Net of related adjustments to policyholder account balances, future policy benefits, deferred acquisition costs, value of business acquired, and deferred revenue liability.

See accompanying Notes to Consolidated Financial Statements

Kansas City Life Insurance Company
Consolidated Statements of Stockholders' Equity

	Year Ended December 31		
	2017	2016	2015
COMMON STOCK, beginning and end of year	$ 23,121	$ 23,121	$ 23,121
ADDITIONAL PAID IN CAPITAL			
Beginning of year	41,025	41,025	41,007
Excess of proceeds over cost of treasury stock sold	—	—	18
End of year	41,025	41,025	41,025
RETAINED EARNINGS			
Beginning of year	868,054	856,196	838,508
Net income	51,541	22,316	29,226
Stockholder dividends (2017, 2016, and 2015 - $1.08 per share)	(10,458)	(10,458)	(11,538)
Cumulative effect of adoption of new accounting principle (see Note 2)	(1,115)	—	—
End of year	908,022	868,054	856,196
ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)			
Beginning of year	(5,316)	(15,210)	23,040
Other comprehensive income (loss)	10,489	9,894	(38,250)
Cumulative effect of adoption of new accounting principle (see Note 2)	1,115	—	—
End of year	6,288	(5,316)	(15,210)
TREASURY STOCK, at cost			
Beginning of year	(241,301)	(241,301)	(182,917)
Cost of shares acquired (2017 and 2016 - 0 shares; 2015 - 1,142,351 shares)	—	—	(58,392)
Cost of shares sold (2017 and 2016 - 0 shares; 2015 - 560 shares)	—	—	8
End of year	(241,301)	(241,301)	(241,301)
TOTAL STOCKHOLDERS' EQUITY	$ 737,155	$ 685,583	$ 663,831

See accompanying Notes to Consolidated Financial Statements

Kansas City Life Insurance Company
Consolidated Statements of Cash Flows

	Year Ended December 31		
	2017	2016	2015
OPERATING ACTIVITIES			
Net income	$ 51,541	$ 22,316	$ 29,226
Adjustments to reconcile net income to net cash provided by operating activities:			
Amortization of investment premium and discount	3,026	4,051	4,257
Depreciation	5,727	5,478	5,368
Acquisition costs capitalized	(41,845)	(32,004)	(37,714)
Amortization of deferred acquisition costs	34,721	27,833	28,348
Net realized investment gains	(4,511)	(4,889)	(3,767)
Changes in assets and liabilities:			
Reinsurance recoverables	2,294	10,893	(4,409)
Future policy benefits	12,583	14,243	3,182
Policyholder account balances	(28,338)	(22,535)	(20,222)
Income taxes payable and deferred	(25,741)	3,825	7,216
Other, net	5,059	(8,324)	4,207
Net cash provided	14,516	20,887	15,692
INVESTING ACTIVITIES			
Purchases:			
Fixed maturity securities	(332,552)	(228,007)	(235,767)
Equity securities	(45)	(3)	(38)
Mortgage loans	(105,354)	(153,947)	(141,184)
Real estate	(5,304)	(34,530)	(8,253)
Policy loans	(11,006)	(10,524)	(8,638)
Other investments	(1,242)	(782)	(280)
Sales or maturities, calls, and principal paydowns:			
Fixed maturity securities	326,923	279,854	298,913
Equity securities	4,075	118	33
Mortgage loans	85,891	112,152	91,096
Real estate	2,205	2,042	20,000
Policy loans	12,722	12,026	10,799
Other investments	1,786	383	419
Net sales (purchases) of short-term investments	(4,669)	(5,052)	16,633
Net acquisition of property and equipment	(1,874)	(938)	(683)
Net cash provided (used)	(28,444)	(27,208)	43,050

Kansas City Life Insurance Company
Consolidated Statements of Cash Flows (Continued)

	Year Ended December 31		
	2017	2016	2015
FINANCING ACTIVITIES			
Deposits on policyholder account balances	$ 226,313	$ 215,688	$ 217,929
Withdrawals from policyholder account balances	(203,249)	(205,372)	(222,907)
Net transfers from separate accounts	5,625	7,670	9,026
Change in other deposits	(4,429)	572	3,954
Cash dividends to stockholders	(10,458)	(10,458)	(11,538)
Net change in treasury stock	—	—	(58,366)
Net cash provided (used)	13,802	8,100	(61,902)
Increase (decrease) in cash	(126)	1,779	(3,160)
Cash at beginning of year	9,630	7,851	11,011
Cash at end of year	$ 9,504	$ 9,630	$ 7,851

See accompanying Notes to Consolidated Financial Statements

Kansas City Life Insurance Company
Notes to Consolidated Financial Statements

1. Nature of Operations and Significant Accounting Policies

Business
Kansas City Life Insurance Company is a Missouri domiciled stock life insurance company which, with its subsidiaries, is licensed to sell insurance products in 49 states and the District of Columbia. The consolidated entity (the Company) offers a diversified portfolio of individual insurance, annuity, and group life and health products through its three life insurance companies. Kansas City Life Insurance Company (Kansas City Life) is the parent company. Sunset Life Insurance Company of America (Sunset Life) and Old American Insurance Company (Old American) are wholly-owned subsidiaries. The Company also has non-insurance subsidiaries that individually and collectively are not material. The terms "the Company," "we," "us," and "our" are used in these consolidated financial statements to refer to Kansas City Life Insurance Company and its subsidiaries.

We have three reportable business segments, which are defined based on the nature of the products and services offered: Individual Insurance, Group Insurance, and Old American. For additional information on our segments, please see Note 18 - Segment Information.

Basis of Presentation
The consolidated financial statements and the accompanying notes to the consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) and include the accounts of Kansas City Life and its subsidiaries, principally Sunset Life and Old American. Significant intercompany transactions have been eliminated in consolidation and certain immaterial reclassifications have been made to the prior period results to conform with the current period's presentation.

Business Changes
In December 2015, the Company completed a reverse/forward stock-split transaction. This transaction occurred as part of a 1-for-250 reverse stock split of our common stock. We purchased approximately 906,500 shares or 9% of the outstanding shares valued at $52.50 per share for $47.6 million. We subsequently completed a 250-for-1 forward stock split for each one share of our common stock (including each fractional share of such class of stock in excess of one share). The purpose of the transaction was to allow us to deregister from the Securities and Exchange Commission (SEC) and to delist our common stock from the NASDAQ Capital Market. These activities were effective as of December 16, 2015. Effective January 4, 2016, we began trading on the OTCQX® Market. Please refer to *www.kclife.com* for more information on the specific transactions identified above.

Use of Estimates
The preparation of the consolidated financial statements requires management of the Company to make estimates and assumptions relating to the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenue and expenses during the period. These estimates are inherently subject to change and actual results could differ from these estimates. Significant estimates required in the preparation of the consolidated financial statements include the fair value of invested assets, deferred acquisition costs (DAC), deferred income taxes, value of business acquired (VOBA), deferred revenue liability (DRL), policyholder account balances, future policy benefits, policy and contract claim liabilities, and pension and other postemployment benefits.

Significant Accounting Policies

Investments
Valuation of Investments and Other-than-Temporary Impairments
Our principal investments are in fixed maturity securities, mortgage loans, and real estate; all of which are exposed to at least three primary sources of investment risk, including: credit, interest rate, and liquidity. Fixed maturity and equity securities, which are all classified as available for sale, are carried at fair value in the Consolidated Balance Sheets, with unrealized gains or losses recorded in accumulated other comprehensive income (loss). The unrealized gains or losses are recorded net of the adjustment to policyholder account balances, future policy benefits, DAC, VOBA, and DRL to reflect what would have been earned had those gains or losses been realized and the proceeds reinvested. The adjustments to DAC, VOBA, and DRL represent changes in the amortization that would have been required as a charge or credit to income had such unrealized amounts been realized. The adjustments to policyholder account balances and future policy benefits represent the increase from using a discount rate that would have been required if such unrealized gains or losses had been realized and the proceeds reinvested at current market interest rates, which were different from the then-current effective portfolio rate. The amortized cost of a security is adjusted for declines in value that are other-than-temporary. Other-than-temporary impairment losses are reported as a component of investment revenues in the Consolidated Statements of Comprehensive Income, which also presents the amount of non-credit impairment losses for certain fixed maturity securities that are reported in accumulated other comprehensive income (loss). See Note 3 - Investments

for additional discussion of our considerations related to other-than-temporary impairments. For additional information regarding fair value, please see Note 4 - Fair Value Measurements.

Mortgage loans are stated at cost, adjusted for amortization of premium and accrual of discount, less an allowance for loan losses. A loan is considered impaired if it is probable that all contractual amounts due will not be collected. The allowance for loan losses is maintained at a level believed by management to be adequate to absorb potential future incurred credit losses. Management's periodic evaluation and assessment of the adequacy of the allowance is based on known and inherent risks in the portfolio, historical and industry data, current economic conditions, and other relevant factors, along with specific risks related to specific loans. Loans in foreclosure, loans considered to be impaired, and loans past due 90 days or more are placed on non-accrual status.

Real estate consists of directly owned investments and real estate joint ventures. Real estate that is directly owned is carried at depreciated cost. Real estate joint ventures consist primarily of office buildings, industrial warehouses, unimproved land for future development, and affordable housing real estate joint ventures. Real estate joint ventures are consolidated when required. The initial cost of the non-consolidated affordable housing real estate joint ventures is amortized in proportion to the tax credits and other tax benefits received and the net investment performance is recognized in the Consolidated Statements of Comprehensive Income as a component of income tax expense. The investments in other non-consolidated real estate joint ventures are recorded using the equity method of accounting, in which the initial cost of the investment is adjusted for earnings and cash contributions or distributions.

Policy loans are carried at the outstanding principal amount. Short-term investments include highly-liquid investments in institutional money market funds that are carried at net asset value (NAV).

Investment Income
Investment income is recognized when earned. Premiums and discounts on fixed maturity securities are amortized over the life of the related security as an adjustment to yield using the effective interest method. Realized gains and losses on the sale of investments are determined on the basis of specific security identification recorded on the trade date.

Future Policy Benefits
We establish liabilities for amounts payable under insurance policies, including traditional life insurance, immediate annuities with life contingencies, supplementary contracts with life contingencies, group life insurance, and accident and health insurance. These liabilities originate from new premiums and conversions from other products and are generally payable over an extended period of time.

Liabilities for future policy benefits of traditional life insurance have been computed by a net level premium method based upon estimates at the time of issue for investment yields, mortality, and withdrawals. These estimates include provisions for experience less favorable than initially expected. Mortality assumptions are based on Company experience expressed as a percentage of standard mortality tables. The 2008 Valuation Basic Table, the 2001 Valuation Basic Table, and the 1975-1980 Select and Ultimate Basic Table serve as the bases for most mortality assumptions.

Liabilities for future policy benefits of immediate annuities and supplementary contracts with life contingencies are computed by calculating an actuarial present value of future policy benefits, based upon estimates for investment yields and mortality at the time of issue. The 2012 Individual Annuity Reserving Table, the Annuity 2000 Table, the 1983 Individual Annuity Mortality Table, and the 1971 Individual Annuity Mortality Table serve as the bases for most immediate annuity and supplementary contract mortality assumptions.

Liabilities for future policy benefits of accident and health insurance represent estimates of payments to be made on reported insurance claims, as well as claims incurred-but-not-reported (IBNR). These liabilities are estimated using actuarial analyses and case basis evaluations that are based upon past claims experience, claim trends, and industry experience.

The following table provides detail about the composition of future policy benefits at December 31.

	2017	2016
Life insurance	$ 645,088	$ 638,231
Immediate annuities and supplementary contracts with life contingencies	275,268	273,285
Accident and health insurance	32,883	32,127
Future policy benefits	$ 953,239	$ 943,643

Policyholder Account Balances

Policyholder account balances include universal life insurance, fixed deferred annuity contracts, and investment-type contracts. Liabilities for policyholder account balances are included without reduction for potential surrender charges. These liabilities originate from new deposits and conversions from other products. Policyholder account balances are equal to cumulative deposits, less contract charges and withdrawals, plus interest credited. Deferred front-end contract charges reduce policyholder account balance liabilities and increase the other policyholder funds liability, and are amortized over the term of the policies in a manner similar to DAC, as discussed below. Interest on policyholder account balances is credited as earned.

On an ongoing basis, we perform testing and analysis on our blocks of business to ensure the assumptions made remain viable. We also periodically perform sensitivity testing on these blocks of business to ensure we maintain the capacity to meet an increase in policyholder benefits, namely increased surrenders, policy loans, or other policyholder elective withdrawals. If it is determined that our established reserves are not adequate, additional reserves will be added.

Crediting rates for universal life insurance and fixed deferred annuity products ranged from 1.00% to 5.50% in 2017, 2016, and 2015.

The following table provides detail about the composition of policyholder account balances at December 31.

	2017	2016
Universal life insurance	$ 919,022	$ 921,669
Fixed deferred annuities	1,078,819	1,075,576
Immediate annuities and supplementary contracts without life contingencies	53,470	54,483
Policyholder account balances	$ 2,051,311	$ 2,051,728

Deferred Acquisition Costs

DAC, principally agent commissions and other selling, selection, and issue costs, which are related directly to the successful acquisition of new or renewal insurance contracts, are capitalized as incurred. At least annually, we review our DAC capitalization policy and the specific items which are capitalized under existing guidance.

Policy acquisition costs associated with traditional life products are deferred and amortized over the premium paying period. Assumptions related to DAC on traditional life insurance products are typically determined at inception and remain unchanged with any future premium deficiency recorded first as a reduction of DAC.

Policy acquisition costs that relate to interest sensitive and variable insurance products are deferred and amortized in relation to the estimated gross profits to be realized over the lives of the contracts. Estimated gross profits for interest sensitive and variable insurance products are projected using assumptions as to net interest income, net realized investment gains and losses, fees, surrender charges, expenses, and mortality gains and losses, net of reinsurance. At the issuance of policies, projections of estimated gross profits are made. These projections are then replaced by actual gross profits over the lives of the policies. In addition to other factors, emerging experience may lead to a revised outlook for the remaining estimated gross profits. Accordingly, DAC may be recalculated (unlocked) using these new assumptions and any resulting adjustment is included in income in the period such an unlocking is deemed appropriate. See the Unlocking and Refinements in Estimates section below for additional information.

The DAC asset is adjusted to reflect the impact of realized and unrealized gains and losses on fixed maturity securities available for sale, as described in the Investments section above.

DAC is reviewed on an ongoing basis to evaluate whether the unamortized portion exceeds the expected recoverable amounts. If it is determined from emerging experience that the premium margins or expected gross profits are insufficient to amortize DAC, the asset will be adjusted downward with the adjustment recorded as an expense in the current period.

The following table provides information about DAC at December 31.

	2017	2016	2015
Balance at beginning of year	$ 271,089	$ 267,936	$ 249,195
Capitalization of commissions and expenses	41,845	32,004	37,714
Gross amortization	(48,064)	(41,375)	(41,832)
Accrual of interest	13,343	13,542	13,484
Amortization due to realized investment (gains) losses	(49)	(201)	(18)
Change in DAC due to the change in unrealized investment gains	(982)	(817)	9,393
Balance at end of year	$ 277,182	$ 271,089	$ 267,936

Value of Business Acquired

The concept of VOBA is no longer applied to business combinations. Rather, under current guidance for business combinations, all assets and liabilities are reported at fair value at acquisition and an intangible asset or liability may result due to differences between fair value and consideration paid. However, prior to the adoption of ASC No. 805 Business Combinations, a portion of the purchase price was allocated to a separately identifiable intangible asset, VOBA, when a new block of business was acquired or when an insurance company was purchased. VOBA is established as the actuarially determined present value of future gross profits of the business acquired and is amortized with interest in proportion to future premium revenues or the expected future profits, depending on the type of business acquired. VOBA is reported as a component of other assets with related amortization included in operating expenses. Amortization of VOBA occurs with interest over the anticipated life of the underlying business to which it relates, initially 15 to 30 years. The assumptions regarding future experience on interest sensitive business can affect the carrying value of VOBA, similar to DAC. These assumptions include interest spreads, mortality, expense margins, and policy and premium persistency experience.

The VOBA asset is adjusted to reflect the impact of realized and unrealized gains and losses on fixed maturity securities available for sale, as described in the Investments section above.

VOBA is reviewed on an ongoing basis to evaluate whether the unamortized portion exceeds the expected recoverable amounts. If it is determined from emerging experience that the premium margins or expected gross profits are insufficient to amortize VOBA, the asset will be adjusted downward with the adjustment recorded as an expense in the current period.

The following table provides information about VOBA at December 31.

	2017	2016	2015
Balance at beginning of year	$ 23,090	$ 24,283	$ 24,655
Gross amortization	(4,925)	(4,215)	(5,679)
Accrual of interest	1,471	1,591	1,795
Amortization due to realized investment (gains) losses	(6)	(14)	(5)
Change in VOBA due to the change in unrealized investment gains	667	1,445	3,517
Balance at end of year	$ 20,297	$ 23,090	$ 24,283

Interest accrued on the VOBA of one block was at the rates of 4.22% on the interest sensitive life block and 5.25% on the traditional life block, based upon the credited rates of the VOBA policies. The VOBA on a separate acquired block of business used a 7.00% interest rate on the traditional life portion and a 5.40% interest rate on the interest sensitive portion, based upon rates appropriate at the time of acquisition.

Deferred Revenue Liabilities

Deferred revenue liabilities represent the capitalization of revenues received from contracts as compensation for services to be provided by the Company in future periods. Such loads and charges are reported as unearned revenue in the period received and are subsequently recognized as income over the policy benefit period, using the same assumptions and factors used to amortize DAC. Similar to DAC, these amounts are amortized in relation to estimated gross profits for interest sensitive and variable insurance products. However, unlike DAC, the amortization of the DRL results in the recognition of revenue rather than expense. The DRL could be impacted by unlocking and refinements in estimates, as discussed in the following section.

Unlocking and Refinements in Estimates

At least annually, we review the models and the assumptions used to develop expected gross profits for interest sensitive and variable insurance products based upon management's current view of future events. Key assumptions analyzed include net interest income, net realized investments gains and losses, fees, surrender charges, expenses, and mortality gains and losses, net of reinsurance. Management's view primarily reflects Company experience but can also reflect emerging trends within the industry. Short-term deviations in experience affect the amortization of DAC, VOBA, and DRL in the period, but do not necessarily indicate that a change to the long-term assumptions of future experience is warranted. If it is determined that it is appropriate to change the assumptions related to future experience, then an unlocking adjustment is recognized for the block of business being evaluated. Certain assumptions, such as interest spreads and surrender rates, may be interrelated. As such, unlocking adjustments often reflect revisions to multiple assumptions. The DAC, VOBA, or DRL balance is immediately impacted by any assumption changes, with the change reflected through the Consolidated Statements of Comprehensive Income as an unlocking adjustment. These adjustments can be positive or negative, and adjustments increasing the DAC asset are limited to amounts previously deferred plus interest accrued through the date of the adjustment. In addition, unlocking adjustments may also impact other line items in the financial statements such as change in reserves.

We also consider refinements in estimates due to improved capabilities resulting from administrative or actuarial system enhancements. We consider such enhancements to determine whether and to what extent they are associated with prior periods or simply improvements in the projection of future expected gross profits due to improved functionality. To the extent they represent such improvements, these items are applied to DAC, VOBA, and DRL in a manner similar to unlocking adjustments.

The following table summarizes the effects of the refinements in estimates on all products and unlocking of assumptions on interest sensitive products in the Consolidated Statements of Comprehensive Income for the years ended December 31. Positive numbers are increases to income and negative numbers are reductions to income.

	DAC Amortization	VOBA Amortization	DRL Contract Charges	Net Impact to Pre-Tax Income
2017:				
Unlocking	$ (344)	$ (1,246)	$ (46)	$ (1,636)
Refinement in estimate	(1,378)	—	2,004	626
	$ (1,722)	$ (1,246)	$ 1,958	$ (1,010)

	DAC Amortization	VOBA Amortization	DRL Contract Charges	Net Impact to Pre-Tax Income
2016:				
Unlocking	$ 5,918	$ 536	$ (1,153)	$ 5,301
Refinement in estimate	(82)	—	178	96
	$ 5,836	$ 536	$ (975)	$ 5,397

	DAC Amortization	VOBA Amortization	DRL Contract Charges	Net Impact to Pre-Tax Income
2015:				
Unlocking	$ 6,380	$ (862)	$ (2,344)	$ 3,174
Refinement in estimate	—	—	—	—
	$ 6,380	$ (862)	$ (2,344)	$ 3,174

The unlocking and refinements in estimates resulted in a net $1.0 million reduction to pre-tax income in 2017 and net increases to pre-tax income of $5.4 million in 2016 and $3.2 million in 2015. The unlocking in 2017 was primarily driven by low interest rates and the implementation of specific cost of insurance charges for certain plans. The unlocking in 2016 was associated with favorable adjustments for mortality, which was in part offset by adjustments related to interest rates. The unlocking in 2015 was associated with favorable adjustments for mortality and expenses, partially offset by adjustments related to interest rates.

In addition, we had a $0.3 million reserve increase in 2017, a $3.7 million reserve increase in 2016, and a $0.3 million reserve decrease in 2015 related to the impacts of unlocking. The impact to pre-tax income of all adjustments related to unlocking and refinements in estimates, including insurance revenues, amortization of DAC and VOBA, and policy holder benefits, was a decrease of $1.3 million in 2017, an increase of $1.7 million in 2016, and an increase of $3.5 million in 2015.

Pensions and Other Postemployment Benefits (OPEB)

The measurement of pension and other postemployment benefit obligations and costs depends on a variety of assumptions. Changes in the valuation of pension obligations and assets supporting this obligation can significantly impact the funded status. Assumptions are made regarding the discount rate, expected long-term rate of return on plan assets, health care claim costs, health care cost trends, retirement rates, and mortality. Generally, the discount rate, expected return on plan assets, and mortality tables have the most significant impact on the cost. The components of benefit cost are included in Operating Expenses in the Consolidated Statements of Comprehensive Income. See Note 13 - Pensions and Other Postemployment Benefits for further details.

Separate Accounts and Guaranteed Minimum Withdrawal Benefits (GMWB)

Separate account assets and liabilities arise from the sale of variable universal life insurance and variable annuity products. The separate account represents funds segregated for the benefit of certain policyholders who bear the investment risk. The assets are legally segregated and are not subject to claims which may arise from any other business of the Company. The separate account assets and liabilities, which are equal, are recorded at fair value based upon NAV of the underlying investment holdings as derived from closing prices on a national exchange or as provided by the issuer. Policyholder account deposits and withdrawals, investment income, and realized investment gains and losses are excluded from the amounts reported in the Consolidated Statements of Comprehensive Income. Revenues to the Company from separate accounts are derived from directly-issued policies and contracts, as well as reinsurance assumed business. These revenues consist principally of contract charges, which include maintenance charges, administrative fees, and mortality and expense charges.

We offer a GMWB rider that can be added to new or existing variable annuity contracts. The rider provides an enhanced withdrawal benefit that guarantees a stream of income payments to an owner or annuitant, regardless of the contract account value. The rider is considered to be a financial derivative and, as such, is accounted for at fair value. The value of the riders will fluctuate depending on market conditions, but is principally impacted by stock market volatility, interest rates, and equity market returns. The change in value could have a material impact on earnings. See further discussion in Note 4.

Reinsurance

Consistent with the general practice of the life insurance industry, we enter into traditional indemnity reinsurance agreements with other insurance companies to support sales of selected new products and the in force business. The reinsurance arrangements have taken various forms over the years. We cede reinsurance in force on all of the following bases: automatic and facultative; yearly renewable term (YRT) and coinsurance; and excess and quota share basis. For additional information pertaining to our significant reinsurers, along with additional information pertaining to reinsurance, please see Note 15 - Reinsurance.

Future policy benefits and other related assets are not reduced for reinsurance ceded in the Consolidated Balance Sheets. A reinsurance recoverable is established for these items. Reinsurance recoverables include amounts related to paid benefits and estimated amounts related to unpaid policy and contract claims, future policy benefits, and policyholder account balances. All insurance related revenues, benefits, and expenses are reported net of reinsurance ceded in the Consolidated Statements of Comprehensive Income.

In addition, we have two large reinsurance assumed arrangements. We acquired a block of traditional life and universal life products in 1997 through a 100% coinsurance and servicing arrangement. These assumed policies and contracts are accounted for in a manner similar to that used for direct business. We also acquired a block of variable universal life insurance policies and variable annuity contracts in 2013. We receive fees based upon both specific transactions and the fund value of the block of policies, as provided under modified coinsurance transactions. Also, as required under modified coinsurance transaction accounting, the separate account fund balances are not recorded as separate accounts on our financial statements. The coinsurance portion of the transaction, which is invested in our fixed funds, is included in Future Policy Benefits in the Consolidated Balance Sheets. We record these fixed fund accounts as a separate block under our general accounts. We receive fees on both the separate accounts and the fixed fund accounts.

Recognition of Insurance Revenues

Premiums

Premiums for traditional life insurance products are reported as revenue when due. Premiums for immediate annuities with life contingencies are reported as revenue when received. Premiums on accident and health, disability, and dental insurance are reported as earned ratably over the contract period in proportion to the amount of insurance protection provided.

Contract Charges

Contract charges consist of cost of insurance, expense loads, the amortization of unearned revenues, and surrender charges on policyholder account balances. Cost of insurance relates to charges for mortality. These charges are applied to the excess of the mortality benefit over the account value for universal life policies. Expense loads are amounts that are assessed against the policyholder balance as consideration for origination and maintenance of the contract. Surrender charges are fees on policyholder account balances upon cancelation or withdrawal of policyholder account balances consistent with policy terms.

An additional component of contract charges is the recognition over time of the DRL for certain fixed and variable universal life policies. This liability arises from front-end loads on such policies and is recognized into the Consolidated Statements of Comprehensive Income in a manner similar to the amortization of DAC. If it is determined that it is appropriate to change the assumptions of future experience, then an unlocking adjustment is recognized for the block of business being evaluated. Certain assumptions, such as interest spreads and surrender rates, may be interrelated, and unlocking adjustments often reflect revisions to multiple assumptions. In addition, we may also consider refinements in estimates for other unusual or one-time occurrences, such as administrative or actuarial system upgrades. These items are applied to the appropriate financial statement line items, similar to unlocking adjustments.

The following table provides information about our insurance revenues, net of reinsurance, for the years ended December 31.

	2017	2016	2015
Customer revenues by line of business:			
Traditional individual insurance products, net	$ 120,367	$ 114,852	$ 104,599
Interest sensitive products	87,795	84,100	83,013
Variable universal life insurance and annuities	26,222	27,034	29,017
Group life and accident and health products, net	59,569	56,967	55,576
Insurance revenues	$ 293,953	$ 282,953	$ 272,205

Deposits

Deposits related to universal life, fixed deferred annuity contracts, and investment-type products are credited to policyholder account balances. Deposits are not recorded as revenue and are shown as a Financing Activity in the Consolidated Statements of Cash Flows. Revenues from such contracts consist of amounts assessed against policyholder account balances for mortality, policy administration, and surrender charges, and are recognized in the period in which the benefits and services are provided as contract charges in the Consolidated Statements of Comprehensive Income.

Realized Gains (Losses)

We realize investment gains and losses from several sources, including write-downs of investment securities and mortgage loans, the change in the allowance for mortgage loan losses, and sales of investment securities and real estate.

Income Taxes

The Company and its subsidiaries file a consolidated federal income tax return that includes both life insurance companies and non-life insurance companies.

Deferred income taxes are recorded based on the differences between the tax bases of assets and liabilities and the amounts at which they are reported in the consolidated financial statements. Recorded amounts are adjusted to reflect changes in income tax rates and other tax law provisions as they become enacted.

On December 22, 2017, the United States enacted tax reform legislation through the Tax Cuts and Jobs Act of 2017 (the TCJA), which significantly changes the existing U.S. tax laws, including a reduction in the corporate tax rate from 35% to 21%, as well as other changes. As a result of enactment of the legislation, the Company received an additional one-time income tax benefit of $30.5 million during December of 2017, primarily related to the remeasurement of certain deferred tax assets and liabilities.

Deferred income tax assets are subject to ongoing evaluation of whether such assets will be realized. The ultimate realization of deferred income tax assets generally depends on the reversal of deferred tax liabilities and the generation of future taxable income and realized gains during the periods in which temporary differences become deductible. Deferred income taxes include future deductible differences relating to unrealized losses on investment securities. We evaluate the character and timing of unrealized gains and losses to determine whether future taxable amounts are sufficient to offset future deductible amounts. A valuation allowance against deferred income tax assets may be required if future taxable income of an appropriate amount and character is not expected.

2. New Accounting Pronouncements

Accounting Pronouncements Adopted During 2017

In February 2018, the Financial Accounting Standards Board (FASB) issued ASU No. 2018-02 Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. The newly enacted TCJA lowered the corporate income tax rate to 21%. Current GAAP requires deferred tax liabilities and assets to be adjusted for the effect of a change in tax laws or rates with the effect included in income from continuing operations in the reporting periods that includes the enactment date. The reduction of the corporate income tax rate is required to be included in income from continuing operations. However, items within accumulated other comprehensive income (loss) were subject to historical tax rates. These are referred to as stranded tax effects in the guidance. This guidance permits a reclassification from accumulated other comprehensive income (loss) to retained earnings for stranded tax effects resulting from the change in the federal corporate income tax rate. The reclassification is the difference between the historical corporate income tax rate and the newly enacted 21% corporate income tax rate and can be applied either retrospectively or in the period of adoption. This guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. We early-adopted this guidance effective December 31, 2017 with application in the period of adoption, resulting in a reclassification of $1.1 million between retained earnings and accumulated other comprehensive income (loss).

Accounting Pronouncements Adopted During 2018

In May 2014, the FASB issued ASU No. 2014-09 Revenue from Contracts with Customers (Topic 606). Topic 606 requires companies to recognize revenue that depicts the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. As an insurance enterprise, our primary sources of revenue are excluded from this guidance, including insurance premiums, contract charges, and investment revenues. We have certain types of non-insurance and non-investment revenue from contracts with customers that fall under this guidance. These revenues are recognized when obligations under the terms of the contract are satisfied. The amount of revenue recognized reflects the consideration we expect to be entitled to in exchange for those services. For these revenues, the performance obligation is fulfilled as services are rendered. Revenues from contracts with customers identified under Topic 606 are not material, totaling less than 1% of our total revenues for the year ended December 31, 2017. Effective January 1, 2018, the Company adopted ASU No. 2014-09 through the modified retrospective approach with no material impact to our consolidated financial statements.

In January 2016, the FASB issued guidance regarding accounting for recognition and measurement of financial assets and financial liabilities. The new standard significantly revises an entity's accounting related to the classification and measurement of investments in equity securities and the presentation of certain fair value changes for financial liabilities measured at fair value. It also amends certain disclosure requirements associated with the fair value of financial instruments. We currently hold equity securities classified as available for sale securities that are measured at fair value with changes in fair value recognized through other comprehensive income (loss). Upon adoption of this guidance, changes in fair value of equity securities will be recognized through net income, which may cause an increase in volatility in the Consolidated Statements of Comprehensive Income. This guidance is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2017 with early adoption allowed. We adopted this guidance effective January 1, 2018 with no material impact to our consolidated financial statements as we have limited ownership in equity investments.

In August 2016, the FASB issued guidance regarding the presentation and classification of certain cash receipts and cash payments in the statement of cash flows. This guidance is effective for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years. We adopted this guidance effective January 1, 2018 with no material impact to our consolidated financial statements.

In March 2017, the FASB issued guidance to improve the presentation of net periodic pension cost and net periodic postretirement benefit cost. This guidance is effective for annual periods beginning after December 15, 2017, including interim periods within those annual periods. We adopted this guidance effective January 1, 2018 with no material impact to our consolidated financial statements.

Accounting Pronouncements Issued, Not Yet Adopted

In February 2016, the FASB issued guidance regarding leases. This guidance includes a lessee model that will cause most leases to be reported on the balance sheet. In addition, the guidance aligns existing GAAP pertaining to leases with the new revenue recognition model that will be effective for periods beginning after December 15, 2017. This guidance is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. We are currently evaluating this guidance.

In June 2016, the FASB issued guidance regarding the measurement of credit losses on financial instruments. Under this guidance, the incurred loss impairment methodology used under current GAAP for loans and other financial instruments will be replaced by a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. Additional disclosures will be required to provide additional information regarding significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of an organization's portfolio. This guidance is effective for fiscal years beginning after December 15, 2020 and interim periods within those fiscal years. We are currently evaluating this guidance.

In March 2017, the FASB issued guidance to amend the amortization period for certain purchased callable debt securities held at a premium. The amortization period for premiums is being shortened to the earliest call date. This guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018. We are currently evaluating this guidance.

All other new accounting standards and updates of existing standards issued through the date of this filing were considered by management and did not relate to accounting policies and procedures pertinent to us at this time or were not expected to have a material impact to the consolidated financial statements.

3. Investments

Fixed Maturity and Equity Securities Available for Sale

Securities by Asset Class

The following table provides amortized cost and fair value of securities by asset class at December 31, 2017.

	Amortized Cost	Gross Unrealized		Fair Value
		Gains	Losses	
U.S. Treasury securities and obligations of U.S. Government	$ 128,087	$ 4,653	$ 210	$ 132,530
Federal agency issued residential mortgage-backed securities [1]	28,248	2,053	43	30,258
Subtotal	156,335	6,706	253	162,788
Corporate obligations:				
Industrial	484,395	18,128	946	501,577
Energy	175,403	7,835	1,274	181,964
Communications and technology	235,219	11,860	430	246,649
Financial	253,346	8,670	569	261,447
Consumer	564,621	14,418	2,361	576,678
Public utilities	258,341	11,148	1,394	268,095
Subtotal	1,971,325	72,059	6,974	2,036,410
Corporate private-labeled residential mortgage-backed securities	33,281	2,910	—	36,191
Municipal securities	182,678	20,913	349	203,242
Other	84,355	510	3,356	81,509
Redeemable preferred stocks	14,514	410	—	14,924
Fixed maturity securities	2,442,488	103,508	10,932	2,535,064
Equity securities	19,236	1,544	10	20,770
Total	$ 2,461,724	$ 105,052	$ 10,942	$ 2,555,834

[1] Federal agency securities are not backed by the full faith and credit of the U.S. Government.

The following table provides amortized cost and fair value of securities by asset class at December 31, 2016.

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasury securities and obligations of U.S. Government	$ 148,468	$ 5,246	$ 849	$ 152,865
Federal agencies [1]	19,796	515	—	20,311
Federal agency issued residential mortgage-backed securities [1]	25,868	2,973	1	28,840
Subtotal	194,132	8,734	850	202,016
Corporate obligations:				
Industrial	506,218	20,445	2,176	524,487
Energy	201,416	7,880	2,778	206,518
Communications and technology	234,280	12,630	1,193	245,717
Financial	200,124	9,928	919	209,133
Consumer	564,868	16,431	2,989	578,310
Public utilities	239,719	13,132	2,562	250,289
Subtotal	1,946,625	80,446	12,617	2,014,454
Corporate private-labeled residential mortgage-backed securities	41,969	2,563	—	44,532
Municipal securities	147,384	17,546	696	164,234
Other	94,062	1,122	2,989	92,195
Redeemable preferred stocks	14,546	125	1,195	13,476
Fixed maturity securities	2,438,718	110,536	18,347	2,530,907
Equity securities	23,289	1,386	679	23,996
Total	$ 2,462,007	$ 111,922	$ 19,026	$ 2,554,903

[1] Federal agency securities are not backed by the full faith and credit of the U.S. Government.

Contractual Maturities

The following table provides the distribution of maturities for fixed maturity securities available for sale. Expected maturities may differ from these contractual maturities since issuers or borrowers may have the right to call or prepay obligations.

	December 31, 2017		December 31, 2016	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due in one year or less	$ 137,483	$ 139,713	$ 177,007	$ 180,934
Due after one year through five years	769,096	794,260	751,986	788,759
Due after five years through ten years	1,003,469	1,034,593	1,020,233	1,043,340
Due after ten years	429,651	457,002	372,488	394,254
Securities with variable principal payments	88,275	94,572	102,458	110,144
Redeemable preferred stocks	14,514	14,924	14,546	13,476
Total	$ 2,442,488	$ 2,535,064	$ 2,438,718	$ 2,530,907

No material derivative financial instruments were held during the years ended December 31, 2017, 2016, or 2015.

Unrealized Losses on Investments

At the end of each quarter, all securities are reviewed to determine whether impairments exist and whether other-than-temporary impairments should be recorded. This quarterly process includes an assessment of the credit quality of each investment in the entire securities portfolio. Additional reporting and review procedures are conducted for those securities where fair value is less than 90% of amortized cost. A formal review document is prepared no less often than quarterly of all investments where fair value is less than 80% of amortized cost for six months or more and selected investments that have changed significantly from a previous period and that have a decline in fair value greater than 10% of amortized cost.

We consider relevant facts and circumstances in evaluating whether the impairment of a security is other-than-temporary. Relevant facts and circumstances considered include but are not limited to:

- The current fair value of the security as compared to amortized cost;
- The credit rating of the security;
- The extent and the length of time the fair value has been below amortized cost;
- The financial position of the issuer, including the current and future impact of any specific events, material declines in the issuer's revenues, margins, cash positions, liquidity issues, asset quality, debt levels, and income results;
- Significant management or organizational changes of the issuer;
- Significant uncertainty regarding the issuer's industry;
- Violation of financial covenants;
- Consideration of information or evidence that supports timely recovery;
- The intent and ability to hold a security until it recovers in value;
- Whether we intend to sell a debt security and whether it is more likely than not that we will be required to sell a debt security before recovery of the amortized cost basis; and
- Other business factors related to the issuer's industry.

To the extent we determine that a fixed maturity security is deemed to be other-than-temporarily impaired, the portion of the impairment that is deemed to be due to credit is charged to earnings in the Consolidated Statements of Comprehensive Income and the cost basis of the underlying investment is reduced. The portion of such impairment that is determined to be non-credit-related is reflected in other comprehensive income (loss) and accumulated other comprehensive income (loss).

There are a number of significant risks and uncertainties inherent in the process of monitoring impairments, determining if an impairment is other-than-temporary, and determining the portion of an other-than-temporary impairment that is due to credit. These risks and uncertainties include but are not limited to:

- The risk that our assessment of an issuer's ability to meet all of its contractual obligations will change based on changes in the credit characteristics of that issuer;
- The risk that the economic outlook will be worse than expected or have more of an impact on the issuer than anticipated;
- The risk that the performance of the underlying collateral for securities could deteriorate in the future and credit enhancement levels and recovery values do not provide sufficient protection to contractual principal and interest;
- The risk that fraudulent, inaccurate, or misleading information could be provided to our credit, investment, and accounting professionals who determine the fair value estimates and accounting treatment for securities;
- The risk that actions of trustees, custodians, or other parties with interests in the security may have an unforeseen adverse impact on our investments;
- The risk that new information obtained or changes in other facts and circumstances may lead us to change our intent to sell the security before it recovers in value;
- The risk that facts and circumstances change such that it becomes more likely than not that we will be required to sell the investment before recovery of the amortized cost basis; and
- The risk that the methodology or assumptions used to develop estimates of the portion of impairments due to credit prove, over time, to be inaccurate or insufficient.

Any of these situations could result in a charge to income in a future period.

Once a security is determined to have met certain of the criteria for consideration as being other-than-temporarily impaired, further information is gathered and evaluated pertaining to the particular security. If the security is an unsecured obligation, the additional research is a top-down approach with particular emphasis on the likelihood of the issuer to meet the contractual terms of the obligation. If the security is secured by an asset or guaranteed by another party, the value of the underlying secured asset or the financial ability of the third-party guarantor is evaluated as a secondary source of repayment. Such research is based upon a top-down approach, narrowing to the specific estimates of value and cash flow of the underlying secured asset or guarantor. If the security is a collateralized obligation, such as a mortgage-backed or other asset-backed instrument, research is also conducted to

obtain and analyze the performance of the collateral relative to expectations at the time of acquisition and with regard to projections for the future. Such analyses are based upon historical results, trends, comparisons to collateral performance of similar securities, and analyses performed by third parties. This information is used to develop projected cash flows that are compared to the amortized cost of the security.

We may selectively determine that we no longer intend to hold a specific issue to its maturity. If we make this determination and the fair value is less than the cost basis, the investment is written down to the fair value and an other-than-temporary impairment is recorded. Subsequently, we seek to obtain the best possible outcome available for this specific issue and record an investment gain or loss at the disposal date.

A discounted future cash flow calculation becomes the primary determinant of whether any portion and to what extent an unrealized loss is due to credit on loan-backed and similar asset-backed securities. Such indications typically include below investment grade ratings and significant unrealized losses for an extended period of time, among other factors. We identified 14 non-U.S. agency mortgage-backed securities that were determined to have such indications at December 31, 2017. We identified 16 non-U.S. agency mortgage-backed securities that were determined to have such indications at December 31, 2016. A discounted future cash flow analysis was performed for each of these securities to determine if any portion of the impairment was due to credit and deemed to be other-than-temporary. The discount rate used in calculating the present value of future cash flows was the investment yield at the time of purchase for each security. The initial default rates were assumed to remain constant or grade down over time, reflecting our estimate of stabilized collateral performance in the future for such securities. This amount is recognized as a realized loss in the Consolidated Statements of Comprehensive Income and the carrying value of the security is written down by the same amount. The portion of an impairment that is determined not to be due to credit is recorded as a component of accumulated other comprehensive income (loss) in the Consolidated Balance Sheets. No impairments were recorded in the year ended December 31, 2017 and $0.6 million of impairments were recorded in the year ended December 31, 2016.

Significant unrealized losses on securities can continue for extended periods of time, particularly for certain individual securities. While this can be an indication of potential credit impairments, it can also be an indication of illiquidity in a particular sector or security. In addition, the fair value of an individual security can be heavily influenced by the complexities of varying market sentiment or uncertainty regarding the prospects for an individual security. Based upon the process described above, we are best able to determine if and to what extent credit impairment may exist in these securities by performing present value calculations of projected future cash flows at the conclusion of each reporting period. By reviewing the most recent data available regarding the security and other relevant industry and market factors, we can modify assumptions used in the cash flow projections and determine the best estimate of the portion of any impairment that is due to credit at the conclusion of each period.

The following table provides information regarding fixed maturity and equity securities available for sale with unrealized losses by asset class and by length of time that individual securities have been in a continuous unrealized loss position at December 31, 2017.

	Less Than 12 Months		12 Months or Longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Treasury securities and obligations of U.S. Government	$ 18,428	$ 121	$ 5,011	$ 89	$ 23,439	$ 210
Federal agency issued residential mortgage-backed securities [1]	7,992	42	29	1	8,021	43
Subtotal	26,420	163	5,040	90	31,460	253
Corporate obligations:						
Industrial	45,927	477	21,142	469	67,069	946
Energy	30,670	202	23,879	1,072	54,549	1,274
Communications and technology	24,804	106	11,004	324	35,808	430
Financial	49,488	290	8,697	279	58,185	569
Consumer	82,018	1,000	43,194	1,361	125,212	2,361
Public utilities	23,249	189	32,871	1,205	56,120	1,394
Subtotal	256,156	2,264	140,787	4,710	396,943	6,974
Municipal securities	14,151	96	5,666	253	19,817	349
Other	13,748	107	35,519	3,249	49,267	3,356
Fixed maturity securities	310,475	2,630	187,012	8,302	497,487	10,932
Equity securities	2,101	10	—	—	2,101	10
Total	$ 312,576	$ 2,640	$ 187,012	$ 8,302	$ 499,588	$ 10,942

[1] Federal agency securities are not backed by the full faith and credit of the U.S. Government.

The following table provides information regarding fixed maturity and equity securities available for sale with unrealized losses by asset class and by length of time that individual securities have been in a continuous unrealized loss position at December 31, 2016.

	Less Than 12 Months		12 Months or Longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Treasury securities and obligations of U.S. Government	$ 37,557	$ 849	$ 4	$ —	$ 37,561	$ 849
Federal agency issued residential mortgage-backed securities [1]	180	—	41	1	221	1
Subtotal	37,737	849	45	1	37,782	850
Corporate obligations:						
Industrial	91,106	2,054	2,976	122	94,082	2,176
Energy	31,575	600	37,984	2,178	69,559	2,778
Communications and technology	35,985	745	6,953	448	42,938	1,193
Financial	21,914	199	5,165	720	27,079	919
Consumer	121,552	2,989	—	—	121,552	2,989
Public utilities	46,917	2,479	1,038	83	47,955	2,562
Subtotal	349,049	9,066	54,116	3,551	403,165	12,617
Municipal securities	16,948	696	—	—	16,948	696
Other	4,943	64	44,190	2,925	49,133	2,989
Redeemable preferred stocks	9,851	1,195	—	—	9,851	1,195
Fixed maturity securities	418,528	11,870	98,351	6,477	516,879	18,347
Equity securities	11,430	679	—	—	11,430	679
Total	$ 429,958	$ 12,549	$ 98,351	$ 6,477	$ 528,309	$ 19,026

[1] Federal agency securities are not backed by the full faith and credit of the U.S. Government.

The following table provides information regarding the number of fixed maturity and equity security issues with unrealized losses at December 31.

	2017	2016
Below cost for less than one year	136	160
Below cost for one year or more and less than three years	52	20
Below cost for three years or more	12	8
Total	200	188

We do not consider the unrealized losses related to these securities to be credit-related. The unrealized losses at both December 31, 2017 and December 31, 2016 primarily related to changes in interest rates and market spreads subsequent to purchase. A substantial portion of investment securities that have unrealized losses are either corporate debt issued with investment grade credit ratings or other investment securities. Included in other investment securities are commercial mortgage-backed securities and asset-backed securities.

The following table summarizes investments in fixed maturity and equity securities available for sale with unrealized losses at December 31, 2017.

	Amortized Cost	Fair Value	Unrealized Losses
Securities owned without realized impairment:			
Unrealized losses of 10% or less	$ 483,758	$ 475,738	$ 8,020
Unrealized losses of 20% or less and greater than 10%	24,959	22,104	2,855
Subtotal	508,717	497,842	10,875
Unrealized losses greater than 20%:			
Investment grade:			
Less than twelve months	—	—	—
Twelve months or greater	—	—	—
Total investment grade	—	—	—
Below investment grade:			
Less than twelve months	—	—	—
Twelve months or greater	—	—	—
Total below investment grade	—	—	—
Unrealized losses greater than 20%	—	—	—
Subtotal	508,717	497,842	10,875
Securities owned with realized impairment:			
Unrealized losses of 10% or less	1,813	1,746	67
Unrealized losses of 20% or less and greater than 10%	—	—	—
Subtotal	1,813	1,746	67
Unrealized losses greater than 20%:			
Investment grade:			
Less than twelve months	—	—	—
Twelve months or greater	—	—	—
Total investment grade	—	—	—
Below investment grade:			
Less than twelve months	—	—	—
Twelve months or greater	—	—	—
Total below investment grade	—	—	—
Unrealized losses greater than 20%	—	—	—
Subtotal	1,813	1,746	67
Total	$ 510,530	$ 499,588	$ 10,942

The following table summarizes investments in fixed maturity and equity securities available for sale with unrealized losses at December 31, 2016.

	Amortized Cost	Fair Value	Unrealized Losses
Securities owned without realized impairment:			
Unrealized losses of 10% or less	$ 517,145	$ 501,873	$ 15,272
Unrealized losses of 20% or less and greater than 10%	26,552	23,093	3,459
Subtotal	543,697	524,966	18,731
Unrealized losses greater than 20%:			
Investment grade:			
Less than twelve months	—	—	—
Twelve months or greater	908	715	193
Total investment grade	908	715	193
Below investment grade:			
Less than twelve months	130	104	26
Twelve months or greater	—	—	—
Total below investment grade	130	104	26
Unrealized losses greater than 20%	1,038	819	219
Subtotal	544,735	525,785	18,950
Securities owned with realized impairment:			
Unrealized losses of 10% or less	2,526	2,464	62
Unrealized losses of 20% or less and greater than 10%	74	60	14
Subtotal	2,600	2,524	76
Unrealized losses greater than 20%:			
Investment grade:			
Less than twelve months	—	—	—
Twelve months or greater	—	—	—
Total investment grade	—	—	—
Below investment grade:			
Less than twelve months	—	—	—
Twelve months or greater	—	—	—
Total below investment grade	—	—	—
Unrealized losses greater than 20%	—	—	—
Subtotal	2,600	2,524	76
Total	$ 547,335	$ 528,309	$ 19,026

The following table provides information on fixed maturity securities available for sale with unrealized losses by actual or equivalent Standard & Poor's rating at December 31, 2017.

	Fair Value	% of Total	Unrealized Losses	% of Total
AAA	$ 18,736	4%	$ 519	5%
AA	84,309	17%	2,118	19%
A	163,721	33%	2,253	21%
BBB	199,697	40%	2,902	26%
Total investment grade	466,463	94%	7,792	71%
BB	9,866	2%	634	6%
B and below	21,158	4%	2,506	23%
Total below investment grade	31,024	6%	3,140	29%
	$ 497,487	100%	$ 10,932	100%

The following table provides information on fixed maturity securities available for sale with unrealized losses by actual or equivalent Standard & Poor's rating at December 31, 2016.

	Fair Value	% of Total	Unrealized Losses	% of Total
AAA	$ 27,051	5%	$ 983	5%
AA	87,400	17%	3,389	19%
A	135,619	26%	4,841	26%
BBB	234,305	46%	6,430	35%
Total investment grade	484,375	94%	15,643	85%
BB	14,359	3%	1,592	9%
B and below	18,145	3%	1,112	6%
Total below investment grade	32,504	6%	2,704	15%
	$ 516,879	100%	$ 18,347	100%

Residential mortgage-backed securities, commercial mortgage-backed securities, and asset-backed securities that were rated below investment grade were 36% at December 31, 2017 and 34% at December 31, 2016 of the total mortgage-backed and asset-backed securities.

The following table provides the distribution of maturities for fixed maturity securities available for sale with unrealized losses. Expected maturities may differ from these contractual maturities since borrowers may have the right to call or prepay obligations.

	December 31, 2017		December 31, 2016	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Fixed maturity securities available for sale:				
Due in one year or less	$ 5,104	$ 4	$ 3,727	$ 113
Due after one year through five years	87,744	752	43,474	516
Due after five years through ten years	285,746	5,131	344,940	9,525
Due after ten years	110,869	5,002	114,661	6,997
Total	489,463	10,889	506,802	17,151
Securities with variable principal payments	8,024	43	226	1
Redeemable preferred stocks	—	—	9,851	1,195
Total	$ 497,487	$ 10,932	$ 516,879	$ 18,347

We held no non-income producing securities at December 31, 2017. We held one non-income producing security with a carrying value of $0.4 million at December 31, 2016. This security was previously written down due to other-than-temporary impairment and was sold in 2017.

We did not hold securities of any corporation and its affiliates that exceeded 10% of stockholders' equity at December 31, 2017 or 2016.

We monitor structured securities through a combination of an analysis of vintage, credit ratings, and other factors. Structured securities include asset-backed, residential mortgage-backed securities, collateralized debt obligations, and other collateralized obligations.

The following tables identify structured securities by credit ratings for all vintages owned at December 31.

	2017		
	Fair Value	Amortized Cost	Unrealized Gains (Losses)
Corporate Private-Labeled Residential MBS:			
Investment Grade	$ 1,847	$ 1,818	$ 29
Below Investment Grade	34,344	31,463	2,881
Total residential & non-agency MBS	36,191	33,281	2,910
Other structured securities:			
Investment grade	66,598	67,652	(1,054)
Below investment grade	14,911	16,703	(1,792)
Total other structured securities	81,509	84,355	(2,846)
Total structured securities	$ 117,700	$ 117,636	$ 64

	2016		
	Fair Value	Amortized Cost	Unrealized Gains (Losses)
Corporate Private-Labeled Residential MBS:			
Investment Grade	$ 9,949	$ 9,610	$ 339
Below Investment Grade	39,932	37,758	2,174
Total residential & non-agency MBS	49,881	47,368	2,513
Other structured securities:			
Investment grade	61,810	63,092	(1,282)
Below investment grade	13,450	15,317	(1,867)
Total other structured securities	75,260	78,409	(3,149)
Total structured securities	$ 125,141	$ 125,777	$ (636)

The following table provides a reconciliation of credit losses recognized in earnings on fixed maturity securities for which a portion of the other-than-temporary impairment loss was recognized in other comprehensive income (loss) for the years ended December 31.

	2017	2016	2015
Credit losses on securities held at the beginning of the year	$ 13,224	$ 20,350	$ 17,889
Additions for increases in the credit loss for which an other-than-temporary impairment was previously recognized when there was no intent to sell the security before recovery of its amortized cost basis	7	74	2,481
Reductions for securities sold	(8,819)	(7,179)	—
Reductions for increases in cash flows expected to be collected that are recognized over the remaining life of the security	(13)	(21)	(20)
Credit losses on securities held at the end of the year	$ 4,399	$ 13,224	$ 20,350

The following table provides the net unrealized gains (losses) reported in accumulated other comprehensive income (loss) on our investments in securities available for sale, at December 31.

	2017	2016	2015
Net unrealized gains	$ 94,110	$ 92,896	$ 95,765
Amounts resulting from:			
DAC, VOBA, and DRL	(12,674)	(14,603)	(17,030)
Future policy benefits	(19,248)	(22,235)	(19,219)
Policyholder account balances	(368)	(470)	(454)
Deferred income taxes	(12,980)	(19,454)	(20,670)
Total	$ 48,840	$ 36,134	$ 38,392

Investment Revenues

The following table provides investment revenues by major category for the years ended December 31.

	2017	2016	2015
Gross investment income:			
Fixed maturity securities	$ 103,438	$ 109,799	$ 116,713
Equity securities	928	1,093	1,023
Mortgage loans	30,686	30,694	31,662
Real estate	21,669	18,738	17,059
Policy loans	5,421	5,558	5,774
Short-term investments	296	130	8
Other investments	105	295	177
Total	162,543	166,307	172,416
Less investment expenses	(16,718)	(15,699)	(15,266)
Net investment income	$ 145,825	$ 150,608	$ 157,150

Realized Gains (Losses)

The following table provides net realized investment gains (losses) by major category for the years ended December 31.

	2017	2016	2015
Fixed maturity securities	$ 2,470	$ 5,066	$ 569
Equity securities	1,608	(190)	49
Mortgage loans	(758)	(769)	(1,041)
Real estate	1,235	955	4,228
Amortization of DAC, VOBA, and DRL	(44)	(173)	(38)
Net realized investment gains	$ 4,511	$ 4,889	$ 3,767

The following table provides detail concerning realized investment gains and losses for the years ended December 31.

	2017	2016	2015
Gross gains resulting from:			
Sales of investment securities	$ 837	$ 1,343	$ 360
Investment securities called and other	3,702	4,641	3,354
Real estate	1,236	1,084	4,228
Total gross gains	5,775	7,068	7,942
Gross losses resulting from:			
Sales of investment securities	(449)	(445)	(403)
Investment securities called and other	(5)	(43)	(212)
Sale of real estate and joint ventures	(1)	(129)	—
Mortgage loans	(12)	(95)	(296)
Total gross losses	(467)	(712)	(911)
Change in allowance for loan losses	(746)	(674)	(745)
Amortization of DAC, VOBA, and DRL	(44)	(173)	(38)
Net realized investment gains, excluding other-than-temporary impairment losses	4,518	5,509	6,248
Net impairment losses recognized in earnings:			
Other-than-temporary impairment losses on fixed maturity and equity securities	—	(563)	(2,189)
Portion of loss recognized in other comprehensive income (loss)	(7)	(57)	(292)
Net other-than-temporary impairment losses recognized in earnings	(7)	(620)	(2,481)
Net realized investment gains	$ 4,511	$ 4,889	$ 3,767

The portion of loss recognized in other comprehensive income (loss) represents the non-credit portion of current or prior other-than-temporary impairment. Corporate private-labeled residential mortgage-backed and other securities had impairments recorded in earnings of less than $0.1 million, $0.1 million, and $0.3 million for the years ended December 31, 2017, 2016, and 2015, respectively.

No corporate obligations had impairments recorded in earnings during 2017. One equity security had an impairment recorded in earnings of $0.5 million during 2016. This was a common stock of a company within the oil exploration and production sector that went through a reorganization pursuant to Chapter 11 of the U.S. Bankruptcy Code. As part of the reorganization, we received equity shares in exchange for this company's corporate obligation in 2015. We recorded an impairment in earnings of $2.0 million during 2015 on this corporate obligation that resulted from reduced oil prices and lower demand for exploration equipment. In addition, one other-type security was written down by $0.2 million during 2015 due to an increase in projected future losses on the underlying collateral. One equity security had an impairment of less than $0.1 million during 2015.

Proceeds from Sales of Investment Securities

The following table provides proceeds from the sale of fixed maturity and equity securities, excluding maturities and calls, for the years ended December 31.

	2017	2016	2015
Proceeds	$ 35,655	$ 42,603	$ 39,954

Non-Cash Investing Activity

There were no non-cash investing transactions in 2017. Non-cash investing transactions in 2016 consisted of a $5.0 million bond exchange with an issuer. Non-cash investing transactions in 2015 consisted of the receipt of $0.6 million common stock for a bond reorganization.

Mortgage Loans

Investments in mortgage loans totaled $649.5 million at December 31, 2017, compared to $630.9 million at December 31, 2016. Our mortgage loans are secured by commercial real estate and are stated at cost, adjusted for premium amortization and discount accretion, less an allowance for loan losses. We believe this allowance is at a level adequate to absorb estimated credit losses and was $4.1 million at December 31, 2017 and $3.3 million at December 31, 2016. Our periodic evaluation and assessment of the adequacy of the allowance is based on known and inherent risks in the portfolio, historical and industry data, current economic conditions, and other relevant factors. Please see Note 5 - Financing Receivables for additional information. We do not hold mortgage loans to any single borrower that exceed 5% of stockholders' equity.

We had 18% of our total investments in commercial mortgage loans at both December 31, 2017 and December 31, 2016. New commercial loans, including refinanced loans, totaled $113.7 million during 2017 and $171.3 million during 2016. The level of new commercial mortgage loans in any year is influenced by market conditions, as we respond to changes in interest rates, available spreads, borrower demand, and opportunities to acquire loans that meet our yield and quality thresholds.

In addition to the subject collateral underlying the mortgage, we may require some amount of recourse from borrowers as another potential source of repayment. The recourse requirement is determined as part of the underwriting requirements of each loan. We added 39 new loans to the portfolio during 2017, and 79% of the total balance of these loans had some amount of recourse requirement. No new loans were purchased from institutional lenders during 2017 or 2016. The average loan-to-value ratio for the overall portfolio was 47% at December 31, 2017, down from 48% at December 31, 2016. These ratios are based upon the current balance of loans relative to the appraisal of value at the time the loan was originated or acquired. Additionally, we may receive fees when borrowers prepay their mortgage loans. The average loan balance was $1.8 million at December 31, 2017 and $1.7 million at December 31, 2016. We have certain mortgage loans that have an unamortized premium, totaling $0.2 million at both December 31, 2017 and December 31, 2016.

The following table identifies the gross mortgage loan principal outstanding and the allowance for loan losses at December 31.

	2017	2016
Principal outstanding	$ 653,621	$ 634,222
Allowance for loan losses	(4,079)	(3,333)
Carrying value	$ 649,542	$ 630,889

The following table summarizes the amount of mortgage loans at December 31, segregated by year of origination. Purchased loans are shown in the year acquired by the Company, although the individual loans may have been initially originated in prior years.

	2017	% of Total	2016	% of Total
Prior to 2008	$ 21,002	3%	$ 32,885	5%
2008	10,048	2%	14,821	2%
2009	7,765	1%	8,951	1%
2010	10,872	2%	16,257	3%
2011	37,516	6%	49,822	8%
2012	63,132	10%	87,607	14%
2013	45,312	7%	59,003	9%
2014	47,403	7%	51,758	8%
2015	134,202	21%	143,606	23%
2016	163,961	24%	169,512	27%
2017	112,408	17%	—	—%
Principal outstanding	$ 653,621	100%	$ 634,222	100%

The following table identifies mortgage loans by geographic location at December 31.

	2017	% of Total	2016	% of Total
West south central	$ 111,676	17%	$ 119,443	19%
East north central	88,741	13%	97,635	15%
Pacific	123,777	19%	95,555	15%
South Atlantic	103,180	16%	89,961	14%
West north central	69,580	11%	75,492	12%
Middle Atlantic	62,635	9%	64,396	10%
Mountain	62,757	10%	59,557	9%
East south central	27,352	4%	29,251	5%
New England	3,923	1%	2,932	1%
Principal outstanding	$ 653,621	100%	$ 634,222	100%

The following table identifies the concentration of mortgage loans by state greater than 5% of total at December 31.

	2017	% of Total	2016	% of Total
Texas	$ 108,142	16%	$ 115,676	18%
California	99,647	15%	76,746	12%
Minnesota	50,445	8%	53,637	9%
Ohio	39,296	6%	40,903	7%
New Jersey	37,851	6%	39,401	6%
Florida	—	—% [1]	34,508	5%
All others	318,240	49%	273,351	43%
Principal outstanding	$ 653,621	100%	$ 634,222	100%

[1] Concentration was less than 5% at December 31, 2017.

The following table identifies mortgage loans by property type at December 31.

	2017	% of Total	2016	% of Total
Industrial	$ 408,061	62%	$ 374,116	59%
Office	156,296	24%	161,277	25%
Medical	25,934	4%	26,731	4%
Other [1]	63,330	10%	72,098	12%
Principal outstanding	$ 653,621	100%	$ 634,222	100%

[1] The Other category consists principally of apartments and retail properties.

The following table identifies mortgage loans by maturity at December 31.

	2017	% of Total	2016	% of Total
Due in one year or less	$ 9,726	1%	$ 15,680	2%
Due after one year through five years	71,493	11%	75,360	12%
Due after five years through ten years	95,143	15%	94,833	15%
Due after ten years	477,259	73%	448,349	71%
Principal outstanding	$ 653,621	100%	$ 634,222	100%

The following table identifies the commercial mortgage portfolio by current loan balance at December 31.

	2017	% of Total	2016	% of Total
$5 million or greater	$ 139,234	21%	$ 134,195	21%
$4 million to less than $5 million	60,824	10%	41,313	6%
$3 million to less than $4 million	63,671	10%	55,588	9%
$2 million to less than $3 million	125,853	19%	127,731	20%
$1 million to less than $2 million	183,682	28%	188,359	30%
Less than $1 million	80,357	12%	87,036	14%
Principal outstanding	$ 653,621	100%	$ 634,222	100%

The following table identifies the commercial mortgage portfolio by current loan balance as a percentage of the value at the time of origination at December 31.

	2017	% of Total	2016	% of Total
70% or greater	$ 90,010	14%	$ 93,724	15%
50% to 69%	357,223	55%	336,722	53%
Less than 50%	206,388	31%	203,776	32%
Principal outstanding	$ 653,621	100%	$ 634,222	100%

We diversify our commercial mortgage loan portfolio both geographically and by property type to reduce certain risks, including local and regional physical and economic exposures. However, diversification may not always sufficiently mitigate these risks. The concentration in the west south central, east north central, and Pacific regions exposes us to potential losses from an economic downturn, certain catastrophes, and natural disasters that may affect areas of those regions. We would not expect an occurrence in any of these areas to have a material adverse effect on our business, financial position, or financial statements. However, we cannot provide assurance that such risks could not have such material adverse effects.

Under the laws of certain states, environmental contamination of a property may result in a lien on the property to secure recovery of the costs of cleanup. In some states, such a lien has priority over the lien of an existing mortgage against such property. As a

commercial mortgage lender, we customarily conduct environmental assessments prior to making commercial mortgage loans secured by real estate and before taking title on real estate. Based on our environmental assessments, we believe that any compliance costs associated with environmental laws and regulations or any remediation of affected properties would not have a material adverse effect on our business, financial position, or financial statements. However, we cannot provide assurance that material compliance costs will not be incurred.

We may refinance commercial mortgage loans prior to contractual maturity as a means of retaining loans that meet our underwriting and pricing parameters. We refinanced seven loans with outstanding balances of $8.4 million during the year ended December 31, 2017. We refinanced eleven loans with outstanding balances of $17.5 million during the year ended December 31, 2016. None of these refinancings were the result of troubled debt restructuring.

In the normal course of business, we commit to fund commercial mortgage loans generally up to 120 days in advance. These commitments typically have fixed expiration dates. A small percentage of commitments expire due to the borrower's failure to deliver the requirements of the commitment by the expiration date. In these cases, the commitment fee is retained. For additional information, please see Note 21 - Commitments, Contingent Liabilities, Guarantees, and Indemnifications.

Real Estate

The following table provides information concerning real estate investments by major category at December 31.

	2017	2016
Land	$ 35,574	$ 36,425
Buildings	162,781	159,510
Less accumulated depreciation	(34,235)	(31,196)
Real estate, commercial	164,120	164,739
Real estate, joint ventures	29,099	30,882
Total	$ 193,219	$ 195,621

Investment real estate is depreciated on a straight-line basis over periods ranging from 3 years to 60 years. We had real estate sales of $2.1 million during 2017, $1.4 million during 2016, and $20.0 million during 2015.

We had $29.1 million in real estate joint ventures at year-end 2017, compared with $30.9 million at year-end 2016. We are the holder of all shares in three subsidiary real estate ventures with a combined carrying value of $20.9 million at year-end 2017 and $20.3 million at year-end 2016. Each of the three subsidiaries holds a 50% interest in these separate joint ventures and all are based in Urbandale, Iowa. The Company periodically reviews its real estate and real estate joint ventures for impairment and tests for recoverability whenever events or changes in circumstances indicate the carrying value may not be recoverable and exceeds its estimated fair value. For equity method investees, we consider financial and other information provided by the investee as well as other known information, including recent market activity and prospects for future activity, in determining whether an impairment has occurred. Based on our reviews performed, we concluded that no impairment existed as of December 31, 2017 or 2016.

We had non-income producing commercial real estate, consisting of vacant properties and properties under development, of $13.1 million at December 31, 2017, compared to $8.5 million at December 31, 2016. In addition, $10.5 million of our real estate joint ventures were non-income producing at December 31, 2017 compared to $13.0 million at December 31, 2016.

4. Fair Value Measurements

Under GAAP, fair value represents the price that would be received to sell an asset or paid to transfer a liability (exit price) in an orderly transaction between market participants at the measurement date. We maximize the use of observable inputs and minimize the use of unobservable inputs when developing fair value measurements.

We categorize our financial assets and liabilities measured at fair value in three levels, based on the inputs and assumptions used to determine the fair value. These levels are as follows:

Level 1 - Valuations are based upon unadjusted quoted prices for identical instruments traded in active markets.

Level 2 - Valuations are based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market. Valuations are obtained from a third-party pricing service or inputs that are observable or derived principally from or corroborated by observable market data.

Level 3 - Valuations are generated from techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect our assumptions that market participants would use in pricing the asset or liability. Valuation techniques include the use of discounted cash flow models, spread-based models, and similar techniques, using the best information available in the circumstances.

Following is a description of valuation methodologies used for assets and liabilities recorded at fair value and for estimating fair value for financial instruments not recorded at fair value but for which fair value is disclosed.

Assets

Securities Available for Sale

Fixed maturity and equity securities available for sale are recorded at fair value on a recurring basis. Fair value measurement is based upon unadjusted quoted prices, if available, except as described in the subsequent paragraphs.

Cash and Short-Term Investments

Cash includes balances on hand and deposits in banks and other financial institutions. Short-term investments include highly-liquid investments in institutional money market funds that are carried at NAV. The carrying value of cash and short-term investments approximates the fair value and are categorized as Level 1. Fair value is provided for disclosure purposes only.

Loans

We do not record mortgage, policy, or agent loans at fair value. As such, valuation techniques discussed herein for loans are primarily for estimating fair value for purpose of disclosure.

Fair values of mortgage loans on real estate properties are calculated by discounting contractual cash flows, using discount rates based on current industry pricing or the Company’s estimate of an appropriate risk-adjusted discount rate for loans of similar size, type, remaining maturity, likelihood of prepayment, and repricing characteristics. Mortgage loans are categorized as Level 3.

Policy loans are made to policyholders under terms defined in the policy's contract. These loans cannot exceed the cash surrender value of the policy. Carrying value of policy loans approximates fair value. Policy loans are categorized as Level 3.

Separate Accounts

The separate account assets and liabilities, which are equal, are recorded at fair value based upon NAV of the underlying investment holdings as derived from closing prices on a national exchange or as provided by the issuer. This is the value at which a policyholder could transact with the issuer on that date. Separate accounts are categorized as Level 2.

Liabilities

Investment-Type Liabilities Included in Policyholder Account Balances and Other Policyholder Funds

The fair values of supplementary contracts and annuities without life contingencies are estimated to be the present value of payments at a market yield. The fair values of deposits with no stated maturity are estimated to be the amount payable on demand at the measurement date. These liabilities are categorized as Level 3. We have not estimated the fair value of the liabilities under contracts that involve significant mortality or morbidity risks, as these liabilities fall within the definition of insurance contracts. Insurance contracts are excluded from financial instruments that require disclosures of fair value.

Guaranteed Minimum Withdrawal Benefits Included in Other Policyholder Funds
Fair value for GMWB rider contracts is a Level 3 valuation, as it is based on models which utilize significant unobservable inputs. These models require actuarial and financial market assumptions, which reflect the assumptions market participants would use in pricing the contract, including adjustments for volatility, risk, and issuer non-performance.

Determination of Fair Value
We utilized external third-party pricing services at both December 31, 2017 and December 31, 2016 to determine the majority of our fair values on investment securities available for sale. At December 31, 2017, approximately 97% of the carrying value of these investments was from an external pricing service, 2% was from brokers, and 1% was derived from internal matrices and calculations. At December 31, 2016, approximately 98% of the carrying value of these investments was from external pricing services, 1% was from brokers, and 1% was derived from internal matrices and calculations. We review prices received from service providers for reasonableness and unusual fluctuations but generally accept the price identified from the pricing service. In the event a price is not available from the third-party pricing service, we pursue external pricing from brokers. Generally, we pursue and utilize only one broker quote per security. In doing so, we solicit only brokers which have previously demonstrated knowledge and experience of the subject security. If a broker price is not available, we determine a fair value through various valuation techniques that may include discounted cash flows, spread-based models, or similar techniques, depending upon the specific security to be priced. These techniques are primarily applied to private placement securities. We utilize available market information, wherever possible, to identify inputs into the fair value determination, primarily prices and spreads on comparable securities.

Each quarter, we evaluate the prices received from the third-party pricing service and independent brokers to ensure that the prices represent a reasonable estimate of the fair value within the macro-economic environment, sector factors, and overall pricing trends and expectations. We corroborate and validate the pricing source through a variety of procedures that include but are not limited to: comparison to brokers, where possible; a review of third-party pricing service methodologies; back testing; in-depth specific analytics on randomly selected issues; and comparison of prices to actual trades for specific securities where observable data exists. In addition, we analyze the third-party pricing service's methodologies and related inputs and also evaluate the various types of securities in our investment portfolio to determine an appropriate fair value hierarchy. Finally, we also perform additional evaluations when individual prices fall outside tolerance levels when comparing prices received from the third-party pricing service.

Fair value measurements for assets and liabilities where limited or no observable market data exists are calculated using our own estimates and are categorized as Level 3. These estimates are based on current interest rates, credit spreads, liquidity premium or discount, the economic and competitive environment, unique characteristics of the asset or liability, and other pertinent factors. Therefore, these estimates cannot be determined with precision and may not be realized in an actual sale or immediate settlement of the asset or liability. Further, changes in the underlying assumptions used, including discount rates and estimates of future cash flows, could significantly affect the results of current or future values.

Our own estimates of fair value of fixed maturity and equity securities may be derived in a number of ways, including but not limited to: 1) pricing provided by brokers, where the price indicates reliability as to value; 2) fair values of comparable securities, incorporating a spread adjustment for maturity differences, collateralization, credit quality, liquidity, and other items, if applicable; 3) discounted cash flow models and margin spreads; 4) bond yield curves; 5) observable market prices and exchange transaction information not provided by external pricing services; and 6) statement values provided to us by fund managers.

The fair value of the GMWB embedded derivative is calculated using a discounted cash flow valuation model that projects future cash flows under multiple risk neutral stochastic equity scenarios. The risk neutral scenarios are generated using the current swap curve and projected equity volatilities and correlations. The equity correlations are based on historical price observations. For policyholder behavior assumptions, expected lapse and utilization assumptions are used and updated for actual experience. The mortality assumption uses the 2000 U.S. Annuity Basic Mortality Table. The present value of cash flows is determined using the discount rate curve, based upon London Interbank Offered Rate (LIBOR) plus a credit spread.

Categories Reported at Fair Value

The following tables present the fair value hierarchy for those assets and liabilities reported at fair value on a recurring basis at December 31.

	2017			
	Level 1	Level 2	Level 3	Total
Assets:				
U.S. Treasury securities and obligations of U.S. Government	$ 12,748	$ 119,782	$ —	$ 132,530
Federal agency issued residential mortgage-backed securities [1]	—	30,258	—	30,258
Subtotal	12,748	150,040	—	162,788
Corporate obligations:				
Industrial	—	501,577	—	501,577
Energy	—	181,964	—	181,964
Communications and technology	—	246,649	—	246,649
Financial	—	261,447	—	261,447
Consumer	—	576,678	—	576,678
Public utilities	—	268,095	—	268,095
Subtotal	—	2,036,410	—	2,036,410
Corporate private-labeled residential mortgage-backed securities	—	36,191	—	36,191
Municipal securities	—	203,242	—	203,242
Other	—	81,509	—	81,509
Redeemable preferred stocks	—	14,924	—	14,924
Fixed maturity securities	12,748	2,522,316	—	2,535,064
Equity securities	5,214	15,556	—	20,770
Short-term investments	32,195	—	—	32,195
Separate account assets	—	419,812	—	419,812
Total	$ 50,157	$ 2,957,684	$ —	$ 3,007,841
Percent of total	2%	98%	—%	100%
Liabilities:				
Other policyholder funds:				
Guaranteed minimum withdrawal benefits	$ —	$ —	$ (3,252)	$ (3,252)
Separate account liabilities	—	419,812	—	419,812
Total	$ —	$ 419,812	$ (3,252)	$ 416,560

[1] Federal agency securities are not backed by the full faith and credit of the U.S. Government.

Kansas City Life Insurance Company
Notes to Consolidated Financial Statements – (Continued)

	2016			
	Level 1	Level 2	Level 3	Total
Assets:				
U.S. Treasury securities and obligations of U.S. Government	$ 12,108	$ 140,757	$ —	$ 152,865
Federal agencies [1]	—	20,311	—	20,311
Federal agency issued residential mortgage-backed securities [1]	—	28,840	—	28,840
Subtotal	12,108	189,908	—	202,016
Corporate obligations:				
Industrial	—	524,487	—	524,487
Energy	—	206,518	—	206,518
Communications and technology	—	245,717	—	245,717
Financial	—	209,133	—	209,133
Consumer	—	578,310	—	578,310
Public utilities	—	250,289	—	250,289
Subtotal	—	2,014,454	—	2,014,454
Corporate private-labeled residential mortgage-backed securities	—	44,532	—	44,532
Municipal securities	—	164,234	—	164,234
Other	—	91,795	400	92,195
Redeemable preferred stocks	—	13,476	—	13,476
Fixed maturity securities	12,108	2,518,399	400	2,530,907
Equity securities	4,950	19,046	—	23,996
Short-term investments	27,526	—	—	27,526
Separate account assets	—	373,256	—	373,256
Total	$ 44,584	$ 2,910,701	$ 400	$ 2,955,685
Percent of total	2%	98%	—%	100%
Liabilities:				
Other policyholder funds:				
Guaranteed minimum withdrawal benefits	$ —	$ —	$ (2,158)	$ (2,158)
Separate account liabilities	—	373,256	—	373,256
Total	$ —	$ 373,256	$ (2,158)	$ 371,098

[1] Federal agency securities are not backed by the full faith and credit of the U.S. Government.

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the years ended December 31 are summarized below:

	2017	
	Assets	Liabilities
	Fixed maturity securities available for sale	GMWB
Beginning balance	$ 400	$ (2,158)
Included in earnings	11	(1,419)
Included in other comprehensive income (loss)	(83)	—
Purchases, issuances, sales and other dispositions:		
Purchases	—	—
Issuances	—	449
Sales	(328)	—
Other dispositions	—	(124)
Transfers into Level 3	—	—
Transfers out of Level 3	—	—
Ending balance	$ —	$ (3,252)

	2016	
	Assets	Liabilities
	Fixed maturity securities available for sale	GMWB
Beginning balance	$ 577	$ (2,778)
Included in earnings	—	1,237
Included in other comprehensive income (loss)	91	—
Purchases, issuances, sales and other dispositions:		
Purchases	—	—
Issuances	—	430
Sales	—	—
Other dispositions	(268)	(1,047)
Transfers into Level 3	—	—
Transfers out of Level 3	—	—
Ending balance	$ 400	$ (2,158)

	2015	
	Assets	Liabilities
	Fixed maturity securities available for sale	GMWB
Beginning balance	$ 759	$ (1,094)
Included in earnings	(193)	(1,488)
Included in other comprehensive income (loss)	306	—
Purchases, issuances, sales and other dispositions:		
Purchases	—	—
Issuances	—	330
Sales	—	—
Other dispositions	(295)	(526)
Transfers into Level 3	—	—
Transfers out of Level 3	—	—
Ending balance	$ 577	$ (2,778)

Depending upon the availability of Level 1 or Level 2 pricing, specific securities may transfer into or out of Level 3. We did not have any transfers between any levels at December 31, 2017, 2016, or 2015.

The following table presents the valuation method for the financial instrument liability categorized as Level 3, as well as the unobservable inputs used in the valuation of those financial instruments at December 31, 2017.

	Fair Value	Valuation Technique	Unobservable Inputs	Range
Embedded Derivative - GMWB	$ (3,252)	Actuarial cash flow model	Mortality	80% of U.S. Annuity Basic Table (2000)
			Lapse	0%-16% depending on product/duration/ funded status of guarantee
			Benefit Utilization	0%-80% depending on age/duration/ funded status of guarantee
			Nonperformance Risk	0.39%-1.17%

The following table presents the valuation method for the financial instrument liability categorized as Level 3, as well as the unobservable inputs used in the valuation of those financial instruments at December 31, 2016.

	Fair Value	Valuation Technique	Unobservable Inputs	Range
Embedded Derivative - GMWB	$ (2,158)	Actuarial cash flow model	Mortality	80% of U.S. Annuity Basic Table (2000)
			Lapse	0%-16% depending on product/duration/ funded status of guarantee
			Benefit Utilization	0%-80% depending on age/duration/ funded status of guarantee
			Nonperformance Risk	0.77%-1.32%

The GMWB liability is sensitive to changes in observable and unobservable inputs. Observable inputs include risk-free rates, index returns, volatilities, and correlations. Increases in risk-free rates and equity returns reduce the liability, while increases in volatilities increase the liability. Our mortality, lapse, benefit utilization, and nonperformance risk adjustments are unobservable. Increases in mortality, lapses, and credit spreads used for nonperformance risk reduce the liability, while increases in benefit utilization increase the liability.

Following are estimates of the impact from changes in unobservable inputs on the GMWB liability at December 31.

	2017	2016
	Increase/(Decrease) in millions	
A 10% increase in the mortality assumption	$ (0.1)	(0.1)
A 10% decrease in the lapse assumption	0.2	0.2
A 10% increase in the benefit utilization	0.7	0.7
A 10 basis point increase in the credit spreads used for non-performance	(0.3)	(0.3)

The following tables present a summary of fair value estimates for financial instruments at December 31. Assets and liabilities that are not financial instruments are not included in this disclosure. The total of the fair value calculations presented below may not be indicative of the value that can be obtained.

	2017				
	Fair Value				Carrying Value
	Level 1	Level 2	Level 3	Total	
Assets:					
Investments:					
Fixed maturity securities available for sale	$ 12,748	$ 2,522,316	$ —	$ 2,535,064	$ 2,535,064
Equity securities available for sale	5,214	15,556	—	20,770	20,770
Mortgage loans	—	—	658,706	658,706	649,542
Policy loans	—	—	78,175	78,175	78,175
Short-term investments	32,195	—	—	32,195	32,195
Cash	9,504	—	—	9,504	9,504
Separate account assets	—	419,812	—	419,812	419,812
Liabilities:					
Individual and group annuities	—	—	1,059,263	1,059,263	1,078,819
Supplementary contracts and annuities without life contingencies	—	—	52,094	52,094	53,470
Separate account liabilities	—	419,812	—	419,812	419,812
Other policyholder funds - GMWB	—	—	(3,252)	(3,252)	(3,252)

	2016				
	Fair Value				Carrying Value
	Level 1	Level 2	Level 3	Total	
Assets:					
Investments:					
Fixed maturity securities available for sale	$ 12,108	$ 2,518,399	$ 400	$ 2,530,907	$ 2,530,907
Equity securities available for sale	4,950	19,046	—	23,996	23,996
Mortgage loans	—	—	636,801	636,801	630,889
Policy loans	—	—	79,893	79,893	79,893
Short-term investments	27,526	—	—	27,526	27,526
Cash	9,630	—	—	9,630	9,630
Separate account assets	—	373,256	—	373,256	373,256
Liabilities:					
Individual and group annuities	—	—	1,056,759	1,056,759	1,075,576
Supplementary contracts and annuities without life contingencies	—	—	53,167	53,167	54,483
Separate account liabilities	—	373,256	—	373,256	373,256
Other policyholder funds - GMWB	—	—	(2,158)	(2,158)	(2,158)

5. Financing Receivables

We have financing receivables with specific maturity dates that are recognized as assets in the Consolidated Balance Sheets.

The following table identifies financing receivables by classification amount at December 31.

	2017	2016
Receivables:		
Agent receivables, net (allowance $817; 2016 - $660)	$ 1,719	$ 1,661
Investment-related financing receivables:		
Mortgage loans, net (allowance $4,079; 2016 - $3,333)	649,542	630,889
Total financing receivables	$ 651,261	$ 632,550

Agent Receivables

We have certain agent receivables that are classified as financing receivables. These receivables from agents are long-term in nature and are specifically assessed for collectibility and are reduced by an allowance for doubtful accounts.

The following table details the gross receivables, allowance, and net receivables for the two types of agent receivables at December 31.

	2017			2016		
	Gross Receivables	Allowance	Net Receivables	Gross Receivables	Allowance	Net Receivables
Agent specific loans	$ 1,234	$ 609	$ 625	$ 988	$ 346	$ 642
Other agent receivables	1,302	208	1,094	1,333	314	1,019
Total	$ 2,536	$ 817	$ 1,719	$ 2,321	$ 660	$ 1,661

The following table details the activity of the allowance for doubtful accounts on agent receivables at December 31. Any recoveries are included as deductions.

	2017	2016
Beginning of year	$ 660	$ 1,197
Additions	302	210
Deductions	(145)	(747)
End of year	$ 817	$ 660

Mortgage Loans

We classify our mortgage loan portfolio as long-term financing receivables. Mortgage loans are stated at cost, adjusted for amortization of premium and accretion of discount, less an allowance for loan losses. Mortgage loan interest income is recognized on an accrual basis with any premium or discount amortized over the life of the loan. Prepayment and late fees are recorded on the date of collection. Loans in foreclosure, loans considered impaired, or loans past due 90 days or more are placed on non-accrual status. Payments received on loans on non-accrual status for these reasons are applied first to interest income not collected while on non-accrual status, followed by fees, accrued and past-due interest, and principal.

If a mortgage loan is placed on non-accrual status, we do not accrue interest income in the financial statements. The loan is independently monitored and evaluated as to potential impairment or foreclosure. This evaluation includes assessing the probability of receiving future cash flows, along with consideration of many of the factors described below. If delinquent payments are made and the loan is brought current, then we return the loan to active status and accrue income accordingly.

The following table details the mortgage loan portfolio as collectively or individually evaluated for impairment at December 31.

	2017	2016
Mortgage loans collectively evaluated for impairment	$ 576,980	$ 566,865
Mortgage loans individually evaluated for impairment	76,641	67,357
Allowance for loan losses	(4,079)	(3,333)
Carrying value	$ 649,542	$ 630,889

Generally, we consider our mortgage loans to be a portfolio segment. We consider our primary class to be property type. We primarily use loan-to-value as our credit risk quality indicator but also monitor additional secondary risk factors, such as geographic distribution both on a regional and specific state basis. The mortgage loan portfolio segment is presented by property type in a table in Note 3, as are geographic distributions by both region and state. These measures are also supplemented with various other analytics to provide additional information concerning potential impairment of mortgage loans and management's assessment of financing receivables.

The following table presents an aging schedule for delinquent payments for both principal and interest by property type at December 31.

		Amount of Payments Past Due			
	Book Value	30-59 Days	60-89 Days	> 90 Days	Total
2017:					
Industrial	$ 482	$ 5	$ —	$ —	$ 5
Office	—	—	—	—	—
Medical	4,921	75	75	1,500	1,650
Other	—	—	—	—	—
Total	$ 5,403	$ 80	$ 75	$ 1,500	$ 1,655
2016:					
Industrial	$ —	$ —	$ —	$ —	$ —
Office	—	—	—	—	—
Medical	4,922	75	75	600	750
Other	—	—	—	—	—
Total	$ 4,922	$ 75	$ 75	$ 600	$ 750

There were two mortgage loans that were over 30 days past due at December 31, 2017. One loan was over 30 days past due. Payment was subsequently received on this loan and it was brought current in 2018. The other loan was over 90 days past due and was in the process of foreclosure at both December 31, 2017 and 2016. We had no troubled loans that were restructured or modified in 2017 or 2016.

The following table details the activity within the allowance for mortgage loan losses at December 31. Any recoveries are reflected as deductions.

	2017	2016
Beginning of year	$ 3,333	$ 2,659
Provision	746	674
Deductions	—	—
End of year	$ 4,079	$ 3,333

The Company increased the allowance for mortgage loan losses $0.7 million in 2017, primarily due to a specific reserve recorded on a certain loan. We increased our allowance for mortgage loan losses $0.7 million in 2016, largely due to the $40.9 million increase in the mortgage loan portfolio. We review the portfolio's risk profile and expected ongoing performance at least quarterly.

The allowance for loan losses is monitored and evaluated at multiple levels with a process that includes, but is not limited to, the factors presented below. Generally, we establish the allowance for loan losses using the collectively evaluated impairment methodology at an overall portfolio level and then specifically identify an allowance for loan losses on loans that contain elevated risk profiles. If we determine through our evaluation that a loan has an elevated specific risk profile, we then individually assess the loan's risk profile and may assign a specific allowance value based on many factors, including those identified below.

Macro-environmental and elevated risk profile considerations:

- Current industry conditions that are affecting the market, including rental and vacancy rates;
- Perceived market liquidity;
- Analysis of the markets and sub-markets in which we have mortgage loans;
- Analysis of industry historical loss and delinquency experience;
- Other factors that we may perceive as important or critical given our portfolio; and
- Analysis of our loan portfolio based on loan size concentrations, geographic concentrations, property type concentrations, maturity concentrations, origination loan-to-value concentrations, and borrower concentrations.

Specific mortgage loan level considerations:

- The payment history of each borrower;
- Negative reports from property inspectors; and
- Each loan's property financial statement including net operating income, debt service coverage, and occupancy level.

We have not acquired any mortgage loans with deteriorated credit quality during the years presented.

As part of our process of monitoring impairments on loans, there are a number of significant risks and uncertainties inherent in this process. These risks include, but are not limited to:

- The risk that our assessment of a borrower's ability to meet all of its contractual obligations will change based on changes in the credit characteristics of the borrower or property;
- The risk that the economic outlook will be worse than expected or have more of an impact on the borrower than anticipated;
- The risk that the performance of the underlying property could deteriorate in the future;
- The risk that fraudulent, inaccurate, or misleading information could be provided to us;
- The risk that the methodology or assumptions used to develop estimates of the portion of the impairment of the loan prove over time to be inaccurate; and
- The risk that other facts and circumstances change such that it becomes more likely than not that we will not obtain all of the contractual payments.

To the extent our review and evaluation determines a loan is impaired, that amount is charged to the allowance for loan losses and the loan balance is reduced. In the event that a property is foreclosed upon, the carrying value is recorded at the lesser of the current fair value or book value of the property with a charge to the allowance and a corresponding reduction to the mortgage loan asset. The property is then transferred to real estate where we have the ability and intent to manage these properties on an ongoing basis.

6. Variable Interest Entities (VIEs)

We invest in certain affordable housing and real estate joint ventures. These VIEs are included in Real Estate in the Consolidated Balance Sheets.

The assets held in affordable housing real estate joint venture VIEs are primarily residential real estate properties that are restricted to provide affordable housing under federal or state programs for varying periods of time. The restrictions primarily apply to the rents that may be paid by tenants residing in the properties during the term of an agreement to remain in the affordable housing program. Investments in these joint ventures are equity interests in partnerships or limited liability companies that may or may not participate in profits or residual value. Our investments in these entities generate a return primarily through the realization of federal and state income tax credits and other tax benefits, such as tax deductions from operating losses of the investments, over specified time periods. We amortize the initial cost of the investment in proportion to the tax credits and other tax benefits received and recognize the net investment performance in the Consolidated Statements of Comprehensive Income as a component of income tax expense. On December 22, 2017, the newly enacted TCJA changed the expected statutory tax rate for tax years beginning January 1, 2018. The change in tax rate from 35% to 21% requires a remeasurement of the unamortized asset related to affordable housing investments. This remeasurement resulted in a decrease to the asset and a nonrecurring increase in amortization of $0.8 million that is included in income tax benefit in the Consolidated Statements of Comprehensive Income and the table below. The tax credits reduce tax expense.

The following table provides information regarding our VIEs for the years ended December 31.

	2017	2016	2015
Federal income tax credits realized	$ 2,752	$ 2,752	$ 2,752
Amortization	1,592	1,543	1,232
Amortization related to tax rate change	768	—	—

Our investments in other real estate VIEs are recorded using the equity method. Cash distributions from the VIE and cash contributions to the VIE are recorded as decreases or increases, respectively, in the carrying value of the VIE. Certain other equity investments in VIEs, where permitted, are recorded on an amortized cost basis. The operating performance of investments in the VIE is recorded in the Consolidated Statements of Comprehensive Income as investment income or as a component of income tax expense, depending upon the nature and primary design of the investment. We evaluate the carrying value of VIEs for impairment on an ongoing basis to assess whether the carrying value is expected to be realized during the anticipated life of the investment. No impairments were recorded during the years ended December 31, 2017, 2016, or 2015.

Investments in the affordable housing and real estate joint ventures are interests that absorb portions of the VIE's expected losses. These investments also receive portions of expected residual returns of the VIE's net assets exclusive of variable interests. We make an assessment of whether we are the primary beneficiary of a VIE at the time of the initial investment and on an ongoing basis thereafter. We consider many factors when making this determination based upon a review of the underlying investment agreement and other information related to the specific investment. The first factor is whether we have the ability to direct the activities of a VIE that most significantly impact the VIE's economic performance. The power to direct the activities of the VIE is generally vested in the managing general partner or managing member of the VIE, which is not the position held by us in these investments. Other factors include the entity's equity investment at risk, decision-making abilities, obligations to absorb economic risks, the right to receive economic rewards of the entity, and the extent to which we share in the VIE's expected losses and residual returns.

The following table presents the carrying amount and maximum exposure to loss relating to VIEs for which we hold a variable interest, but are not the primary beneficiary, and which had not been consolidated at December 31, 2017 and December 31, 2016. The table includes investments in five real estate joint ventures and 17 affordable housing real estate joint ventures at December 31, 2017 and investments in five real estate joint ventures and 19 affordable housing real estate joint ventures at December 31, 2016.

	2017		2016	
	Carrying Amount	Maximum Exposure to Loss	Carrying Amount	Maximum Exposure to Loss
Real estate joint ventures	$ 21,761	$ 21,761	$ 21,098	$ 21,098
Affordable housing real estate joint ventures	7,338	33,354	9,784	34,215
Total	$ 29,099	$ 55,115	$ 30,882	$ 55,313

The maximum exposure to loss relating to the real estate joint ventures and affordable housing real estate joint ventures is equal to the carrying amounts plus any unfunded equity commitments, exposure to potential recapture of tax credits, guarantees of debt, or other obligations of the VIE with recourse. Unfunded equity and loan commitments typically require financial or operating performance by other parties and have not yet become due or payable but which may become due in the future.

At December 31, 2017 and December 31, 2016, we had no equity commitments outstanding to the real estate joint venture VIEs. We have contingent commitments to fund additional equity contributions for operating support to certain real estate joint venture VIEs, which could result in additional exposure to loss. However, we are unable to quantify the amount of these contingent commitments.

In addition, the maximum exposure to loss on affordable housing joint ventures at December 31, 2017 included $18.7 million of losses which could be realized if the tax credits received by the VIEs were recaptured, compared to $14.6 million at December 31, 2016. Recapture events would cause us to reverse some or all of the benefit previously recognized by us or third parties to whom the tax credit interests were transferred. A recapture event can occur at any time during a 15-year required compliance period. The principal causes of recapture include financial default and non-compliance with affordable housing program requirements by the properties controlled by the VIE. Guarantees from the managing member or managing partner in the VIE, insurance contracts, or changes in the residual value accruing to our interests in the VIE may mitigate the potential exposure due to recapture.

7. Property and Equipment

Property and equipment are stated at cost and depreciated over estimated useful lives using the straight-line method. The home office is depreciated over 25 years to 50 years and furniture and equipment is depreciated over 3 years to 10 years. The following table provides information at December 31.

	2017	2016
Land	$ 766	$ 766
Home office complex	21,063	21,988
Furniture and equipment	19,502	41,237
	41,331	63,991
Accumulated depreciation	(30,838)	(48,138)
Property and equipment	$ 10,493	$ 15,853

Depreciation expense totaled $1.5 million during 2017, $1.7 million during 2016, and $1.6 million during 2015.

During 2017, based on updated information received, we determined the carrying value of one of our fixed assets exceeded the fair value. We reduced the carrying value of the fixed asset by $5.7 million to reflect its current fair value, which is included in Operating Expenses in the Consolidated Statements of Comprehensive Income.

8. Separate Accounts

Separate account assets and liabilities arise from the sale of variable universal life insurance and variable annuity products. The separate account represents funds segregated for the benefit of certain policyholders who bear the investment risk. The assets are legally segregated and are not subject to claims which may arise from any other business of the Company. The separate account assets and liabilities, which are equal, are recorded at fair value based upon the net asset value of the underlying investment holdings as derived from closing prices on a national exchange or as provided by the issuer. Policyholder account deposits and withdrawals, investment income, and realized investment gains and losses are excluded from the amounts reported in the Consolidated Statements of Comprehensive Income. Revenues from separate accounts consist principally of contract charges, which include maintenance charges, administrative fees, and mortality and expense charges.

The total separate account assets were $419.8 million at December 31, 2017 and $373.3 million at December 31, 2016. Variable universal life and variable annuity assets comprised 28% and 72% of this amount in both 2017 and 2016.

The following table provides a reconciliation of activity within separate account liabilities at December 31.

	2017	2016	2015
Balance at beginning of year	$ 373,256	$ 372,924	$ 406,501
Deposits on variable policyholder contracts	27,969	23,344	32,306
Transfers to general account	(2,286)	(3,880)	(5,726)
Investment performance	65,678	28,489	(13,720)
Policyholder benefits and withdrawals	(32,123)	(34,991)	(33,083)
Contract charges	(12,682)	(12,630)	(13,354)
Balance at end of year	$ 419,812	$ 373,256	$ 372,924

We have a GMWB rider that can be added to new or existing variable annuity contracts. The rider provides an enhanced withdrawal benefit that guarantees a stream of income payments to an owner or annuitant, regardless of the contract account value. The value of the separate accounts with the GMWB rider was recorded at fair value of $131.9 million at December 31, 2017. The fair value of the separate accounts with the GMWB rider was $116.5 million at December 31, 2016. The GMWB guarantee liability was $(3.3) million at December 31, 2017 and $(2.2) million at December 31, 2016. The change in this value is included in Policyholder Benefits in the Consolidated Statements of Comprehensive Income. The value of variable annuity separate accounts with the GMWB rider is recorded in Separate Account Liabilities, and the value of the rider is included in Other Policyholder Funds in the Consolidated Balance Sheets.

We have two blocks of variable universal life policies and variable annuity contracts from which fees are received. The fees are based upon both specific transactions and the fund value of the blocks of policies. We have a direct block of ongoing business identified in the Consolidated Balance Sheets as separate account assets, totaling $419.8 million at December 31, 2017 and $373.3 million at December 31, 2016, and corresponding separate account liabilities of an equal amount. The fixed-rate funds for these policies are included in our general account as Future Policy Benefits. The Future Policy Benefits for the direct block approximated $0.4 million at both December 31, 2017 and December 31, 2016.

In addition, we have an assumed closed block of variable universal life business that totaled $331.0 million at December 31, 2017 and $295.7 million at December 31, 2016. As required under modified coinsurance transaction accounting, the assumed separate account fund balances are not recorded as separate accounts on our consolidated financial statements. Rather, the assumed fixed-rate funds for these policies of $30.2 million at December 31, 2017 and $28.5 million at December 31, 2016 are included in our general account as Future Policy Benefits. The Future Policy Benefits for the assumed block approximated $0.6 million at both December 31, 2017 and December 31, 2016.

Guarantees are offered under variable universal life and variable annuity contracts: a guaranteed minimum death benefit (GMDB) rider is available on certain variable universal life contracts and on all variable annuities. The GMDB rider for variable universal life contracts guarantees the death benefit for specified periods of time, regardless of investment performance, provided cumulative premium requirements are met. The GMDB rider for variable annuity contracts guarantees the death benefit for specified periods of time, regardless of investment performance.

Separate account balances for variable annuity contracts were $301.8 million at December 31, 2017 and $268.7 million at December 31, 2016. The total reserve held for variable annuity GMDB was less than $0.1 million at December 31, 2017 and was $0.1 million at December 31, 2016. Additional information related to the GMDB and related separate account balances and net amount at risk (the amount by which the GMDB exceeds the account balance) as of December 31, 2017 and 2016 is provided below:

	2017			2016		
	Separate Account Balance	Net Amount at Risk	Weighted Average Attained Age	Separate Account Balance	Net Amount at Risk	Weighted Average Attained Age
Return of net deposits	$ 237,877	$ 289	61.1	$ 211,861	$ 2,122	60.7
Return of the greater of the highest anniversary contract value or net deposits	8,903	2	68.8	8,046	431	68.5
Return of the greater of every fifth year highest anniversary contract value or net deposits	7,216	27	67.8	6,977	66	67.4
Return of the greater of net deposits accumulated annually at 5% or the highest anniversary contract value	47,771	2,527	63.3	41,840	5,303	62.7
Total	$ 301,767	$ 2,845	61.8	$ 268,724	$ 7,922	61.4

The following table presents the aggregate fair value of assets by major investment asset category supporting the variable annuity separate accounts with guaranteed benefits at December 31.

	2017	2016
Money market	$ 2,426	$ 2,345
Fixed income	18,673	19,078
Balanced	87,741	81,117
International equity	18,814	14,552
Intermediate equity	147,233	128,489
Aggressive equity	26,880	23,143
Total	$ 301,767	$ 268,724

9. Unpaid Claims Liability and Short-Duration Contracts

The liability for unpaid claims is included with Policy and Contract Claims and Future Policy Benefits in the Consolidated Balance Sheets. Claim adjustment expenditures are expensed as incurred and were not material in any year presented.

The following tables present activity in the accident and health portion of the unpaid claims liability for the Individual Insurance, Group Insurance, and Old American segments for the years ended December 31. Classified as policy and contract claims, but excluded from these tables due to immateriality, are amounts recorded for group life, individual life, and deferred annuities. The amounts for 2017 and 2016 are audited while the amounts for 2015 are unaudited.

	2017			
	Individual Insurance	Group Insurance	Old American	Consolidated
Gross liability at beginning of year	$ 785	$ 26,020	$ 5,341	$ 32,146
Less reinsurance recoverable	(445)	(19,850)	(5,260)	(25,555)
Net liability at beginning of year	340	6,170	81	6,591
Incurred benefits related to:				
Current year	27	26,836	87	26,950
Prior years [1]	57	(430)	(53)	(426)
Total incurred benefits	84	26,406	34	26,524
Paid benefits related to:				
Current year	3	22,758	12	22,773
Prior years	136	3,104	11	3,251
Total paid benefits	139	25,862	23	26,024
Net liability at end of year	285	6,714	92	7,091
Reinsurance recoverable	372	21,231	5,346	26,949
Gross liability at end of year	$ 657	$ 27,945	$ 5,438	$ 34,040

[1] The incurred benefits related to prior years' unpaid accident and health claims reflect the change in these liabilities.

	December 31, 2016			
	Individual Insurance	Group Insurance	Old American	Consolidated
Gross liability at beginning of year	$ 995	$ 26,045	$ 6,132	$ 33,172
Less reinsurance recoverable	(595)	(20,142)	(6,054)	(26,791)
Net liability at beginning of year	400	5,903	78	6,381
Incurred benefits related to:				
Current year	65	26,069	128	26,262
Prior years [1]	5	(503)	(64)	(562)
Total incurred benefits	70	25,566	64	25,700
Paid benefits related to:				
Current year	36	22,264	49	22,349
Prior years	94	3,035	12	3,141
Total paid benefits	130	25,299	61	25,490
Net liability at end of year	340	6,170	81	6,591
Reinsurance recoverable	445	19,850	5,260	25,555
Gross liability at end of year	$ 785	$ 26,020	$ 5,341	$ 32,146

[1] The incurred benefits related to prior years' unpaid accident and health claims reflect the change in these liabilities.

	December 31, 2015			
	Individual Insurance	Group Insurance	Old American	Consolidated
Gross liability at beginning of year	$ 1,276	$ 25,345	$ 8,070	$ 34,691
Less reinsurance recoverable	(761)	(19,369)	(7,992)	(28,122)
Net liability at beginning of year	515	5,976	78	6,569
Incurred benefits related to:				
Current year	93	26,067	113	26,273
Prior years [1]	(36)	(356)	(58)	(450)
Total incurred benefits	57	25,711	55	25,823
Paid benefits related to:				
Current year	56	22,827	37	22,920
Prior years	116	2,957	18	3,091
Total paid benefits	172	25,784	55	26,011
Net liability at end of year	400	5,903	78	6,381
Reinsurance recoverable	595	20,142	6,054	26,791
Gross liability at end of year	$ 995	$ 26,045	$ 6,132	$ 33,172

[1] The incurred benefits related to prior years' unpaid accident and health claims reflect the change in these liabilities.

The following table presents the reconciliation of amounts in the above tables to Policy and Contract Claims and claim reserves that are included in Future Policy Benefits as presented in the Consolidated Balance Sheets at December 31. The amounts for 2017 and 2016 are audited while the amounts for 2015 are unaudited.

	2017	2016	2015
Individual Insurance Segment:			
Individual accident and health	$ 657	$ 785	$ 995
Individual life	18,506	16,624	20,936
Deferred annuity	3,047	3,221	2,310
Subtotal	22,210	20,630	24,241
Group Insurance Segment:			
Group accident and health	27,945	26,020	26,045
Group life	1,846	1,671	1,962
Subtotal	29,791	27,691	28,007
Old American Segment:			
Individual accident and health	5,438	5,341	6,132
Individual life	6,240	6,361	6,524
Subtotal	11,678	11,702	12,656
Total	$ 63,679	$ 60,023	$ 64,904

For short-duration contracts, IBNR liabilities for the group long-term disability product that were included in the liability for unpaid claims and claim adjustment expenses, net of reinsurance, totaled $0.6 million at both December 31, 2017 and December 31, 2016. These liabilities were calculated by the reinsurers of the various blocks of group long-term disability business, using percent of premium methodologies with varying factors. Claim frequencies were calculated for the long-term disability product using information that includes paid and pending claims at the claimant level. Thus, frequency is measured by individual claimant. Claims that are counted in a particular year as a liability but do not result in a liability in future years are not included once the claim is settled. There have been no significant changes to the methodologies for calculating claim frequencies, incurred-but-not-reported liabilities, or any other unpaid claims liabilities for the long-term disability product.

The liabilities in the following table for group long-term disability claims involve present value of future benefits calculations. The carrying amount of liabilities at December 31, 2017 was $4.3 million, consisting of an undiscounted amount of $5.2 million and an aggregated discount amount deducted of $0.9 million. Discount rates ranged from 3.60% to 6.00% for the various blocks of group long-term disability business included in the totals.

The following table provides incurred claims and allocated claim adjustment expenses, net of reinsurance, for the group long-term disability product at December 31, 2017. The amounts for 2017 and 2016 are audited while the amounts for 2015 and earlier are unaudited.

Year Incurred	For the Years Ended December 31,						Total of IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	2012	2013	2014	2015	2016	2017	December 31, 2017	
2012	$ 1,132	$ 1,087	$ 999	$ 993	$ 1,116	$ 1,104	$ —	624
2013		806	836	815	838	838	—	234
2014			868	955	799	768	—	182
2015				989	918	701	—	226
2016					1,694	1,552	—	224
2017						2,038	631	143
					Total	$ 7,001		

The following table provides cumulative paid claims and allocated claim adjustment expenses, net of reinsurance, for the group long-term disability product at December 31, 2017. The amounts for 2017 and 2016 are audited while the amounts for 2015 and earlier are unaudited.

Year Incurred	For the Years Ended December 31,					
	2012	2013	2014	2015	2016	2017
2012	$ 91	$ 373	$ 499	$ 605	$ 675	$ 733
2013		91	336	449	501	537
2014			71	276	411	481
2015				100	390	491
2016					164	505
2017						162
					Total	$ 2,909
All outstanding liabilities before 2012, net of reinsurance						$ 1,079
Liabilities for claims and claim adjustment expenses, net of reinsurance						$ 5,171

The following table provides a reconciliation of incurred and paid claims development information to the aggregate carrying amount of the liability for unpaid claims and claim adjustment expenses at December 31. Included in other short-duration contracts are group life, group short-term disability, group dental, group vision, and individual accident and health for the Individual and Old American segments, none of which are individually significant.

	2017	2016
Net outstanding liabilities:		
Group long-term disability	$ 5,171	$ 4,646
Other short-duration contracts	4,139	4,051
Liabilities for unpaid claims and claim adjustment expenses, net of reinsurance	9,310	8,697
Reinsurance recoverable on unpaid claims:		
Group long-term disability	25,220	26,554
Other short-duration contracts	6,409	6,595
Total reinsurance recoverable on unpaid claims	31,629	33,149
Insurance lines other than short-duration	27,891	26,300
Unallocated claims adjustment expenses	—	—
Impact of discounting	(5,151)	(8,123)
Other	—	—
	22,740	18,177
Total gross liability for unpaid claims and claim adjustment expenses	$ 63,679	$ 60,023

The following table provides the historical average annual percentage payout of incurred claims by age, net of reinsurance, at December 31, 2017.

	Years				
	1	2	3	4	5
Group long-term disability	10.18%	28.95%	14.27%	8.32%	5.30%

10. Participating Policies

We have insurance contracts where the policyholder is entitled to share in the earnings through dividends, which reflect the difference between the premium charged and the actual experience. These insurance contracts were directly issued by the Company or were acquired through the purchase of participating blocks of business, largely through reinsurance assumption transactions. Participating business approximated 7% of total statutory premiums in 2017, compared to 8% in 2016. Assumed participating business from the acquisition of closed blocks of business accounted for 99% of total participating statutory premiums in both 2017 and 2016. Participating business equaled 10% of total life insurance in force at December 31, 2017, compared to 11% at December 31, 2016. Assumed participating business accounted for 97% of total participating life insurance in force at both December 31, 2017 and December 31, 2016.

The amount of dividends to be paid is determined annually by our Board of Directors. Provision has been made in the liability for future policy benefits to allocate amounts to participating policyholders on the basis of dividend scales contemplated at the time the policies were issued, as well as for policyholder dividends having been declared by the Board of Directors in excess of the original scale.

11. Debt

We had no notes payable at December 31, 2017 or December 31, 2016.

As a member of the Federal Home Loan Bank of Des Moines (FHLB) with a capital investment of $4.8 million at December 31, 2017, we have the ability to borrow on a collateralized basis from the FHLB. We received an insignificant amount of dividends on the capital investment in 2017, 2016, and 2015.

We have three unsecured revolving lines of credit with two major commercial banks. The lines available totaled $70.0 million at December 31, 2017 and December 31, 2016 with no balances outstanding. The lines of credit are at variable interest rates based upon short-term indices and will mature in June of 2018. We anticipate renewing these lines of credit as they come due. One line of credit includes a $10.0 million portion that can be unconditionally canceled by the lending institution at its discretion at any time.

12. Income Taxes

The following table provides information about income taxes for the years ended December 31.

	2017	2016	2015
Current income tax expense	$ 4,784	$ 5,069	$ 9,048
Deferred income tax expense (benefit)	3,531	3,659	3,922
Adjustment to deferred taxes for enacted changes in tax laws	(30,487)	—	—
Total income tax expense (benefit)	$ (22,172)	$ 8,728	$ 12,970

The following table provides information about taxes paid for the years ended December 31.

	2017	2016	2015
Cash paid for income taxes	$ 3,569	$ 4,933	$ 5,754

The following table provides a reconciliation of the federal income tax rate to our effective income tax rate for the years ended December 31.

	2017	2016	2015
Federal income tax rate	35 %	35 %	35 %
Tax credits, net of equity adjustment	(2)%	(5)%	(4)%
Permanent differences and other	(2)%	(2)%	— %
Remeasurement of deferred taxes for enacted changes in tax laws	(106)%	— %	— %
Effective income tax rate	(75)%	28 %	31 %

Presented below are tax effects of temporary differences that result in significant deferred tax assets and liabilities at December 31.

	2017	2016
Deferred tax assets:		
Future policy benefits	$ 7,626	$ 18,327
Employee retirement benefits	7,523	18,760
Other	5,233	6,725
Deferred tax assets	20,382	43,812
Deferred tax liabilities:		
Basis differences between tax and GAAP accounting for investments	4,017	6,431
Unrealized investment gains	19,756	32,476
Capitalization of DAC, net of amortization	37,738	60,216
VOBA	4,262	8,081
Property and equipment	1,491	4,797
Deferred tax liabilities	67,264	112,001
Net deferred tax liability	46,882	68,189
Current tax asset	(3,081)	(1,937)
Income taxes payable	$ 43,801	$ 66,252

A valuation allowance must be established for any portion of the deferred tax asset which is believed not to be realizable. Management reviews the need for a valuation allowance based on our anticipated future earnings, reversal of future taxable differences, the available carryback and carryforward periods, tax planning strategies that are prudent and feasible, and the ability and intent to hold securities until their recovery. In management's opinion, it is more likely than not that we will realize the benefit of our deferred taxes.

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state jurisdictions. In general, we are no longer subject to U.S. federal, state, or local income tax examinations by tax authorities for years prior to 2014. We are not currently under examination by the Internal Revenue Service (IRS).

Tax positions are evaluated at the reporting date to determine whether an unrecognized tax benefit should be recorded. A reconciliation of the beginning and ending amounts of unrecognized tax benefits for the years ended December 31 is as follows:

	2017	2016
Beginning of year	$ —	$ 535
Reductions for tax positions of prior years	—	(535)
End of year	$ —	$ —

Our policy is to recognize interest and penalties accrued related to unrecognized tax benefits in income tax expense. The Company recognized no tax benefit related to tax penalty and interest expense in 2017. The Company recognized $0.1 million tax benefit related to tax penalty and interest expense in 2016. The Company recognized no tax penalty and interest expense in 2015.

We had no material uncertain tax positions at December 31, 2017 or December 31, 2016.

Income tax expense (benefit) is recorded in various places in our financial statements, as detailed below, for the years ended December 31.

	2017	2016	2015
Income tax expense (benefit)	$ (22,172)	$ 8,728	$ 12,970
Stockholders' equity:			
Related to:			
Change in net unrealized gains on securities available for sale	426	(1,004)	(27,600)
Effect on DAC, VOBA, and DRL	675	850	4,013
Change in future policy benefits	1,045	(1,056)	2,646
Change in policyholder account balances	36	(6)	149
Change in benefit plan obligations	3,467	6,543	196
Total income tax expense (benefit) included in financial statements	$ (16,523)	$ 14,055	$ (7,626)

Beginning January 1, 2018, the TCJA imposes a limitation on tax reserves based upon the greater of net surrender value or 92.81% of the reserve method prescribed by the NAIC which covers such contracts as of the date the reserve is determined. The Company has elected to apply SEC Staff Accounting Bulletin No. 118 (SAB 118) as permitted by the FASB. SAB 118 was issued on December 22, 2017 to address the application of GAAP in situations where a company does not have the necessary information available, prepared, or analyzed in reasonable detail to complete the accounting for certain income tax effects of the TCJA. We have recognized the provisional tax impacts related to the change in the methodology employed to calculate tax reserves. As a result, we have recorded a deferred tax asset and offsetting deferred tax liability of $7.4 million in our financial statements for the year ended December 31, 2017. The provisional amount has been recorded as we do not have the information available in appropriate detail to analyze and calculate the amount required under the change in methodology. The ultimate impact may differ, potentially materially, from the provisional amount due to additional analysis, changes in our interpretations or assumptions, or additional regulatory guidance that may be issued, among other things. The accounting is expected to be completed during the year ended December 31, 2018.

13. Pensions and Other Postemployment Benefits

We have pension and other postemployment benefit plans covering substantially all of our employees for which the measurement date is annually on December 31.

The Kansas City Life Cash Balance Pension Plan (the Plan or pension plan) was amended effective December 31, 2010 to provide that participants' accrued benefits will be frozen, and that no further benefits or accruals will be earned after December 31, 2010. Although participants will no longer accrue additional benefits under the Plan at December 31, 2010, participants will continue to earn years of service for vesting purposes under the Plan with respect to their benefits accrued through December 31, 2010. In addition, the cash balance account will continue to earn annual interest. Plan benefits are based on a cash balance account consisting of credits to the account based upon an employee's years of service, compensation and interest credits on account balances calculated using the greater of the average 30-year U.S. Treasury bond rate for November of each year or 5.00%.

During 2016, the IRS mandated that qualified pension plans adopt one of three interest crediting methodologies. The Plan was amended effective January 1, 2017 to change its interest crediting rate to be the greater of 5.00% or the 30-year U.S. Treasury Rate. Prior to January 1, 2017, the interest crediting rate was the greater of 5.50% or the 30-year U.S. Treasury Rate.

In September 2016, the Plan was amended to allow for a one-time payment of benefits to certain qualified participants. Benefits in the form of cash lump sum payments or rollovers of lump sum benefits to qualified financial institutions were elected by certain participants. Total benefits paid under this one-time offer equaled $2.3 million or 1.60% of the projected benefit obligation as of December 31, 2015 and were not considered to be a significant event.

The benefits expected to be paid in each year from 2018 through 2022 are as follows: $9.4 million in 2018; $9.7 million in 2019; $9.1 million in 2020; $9.0 million in 2021; and $8.7 million in 2022. The aggregate benefits expected to be paid in the five years from 2023 through 2027 are $43.2 million. The expected benefits to be paid are based on the same assumptions used to measure the Company's benefit obligation at December 31, 2017 and are the actuarial present value of the vested benefits to which the employee is currently entitled but based upon the expected date of separation or retirement. The 2018 contribution for the Plan has not been determined.

The asset allocation of the fair value of pension plan assets compared to the target allocation range at December 31 was:

	2017	2016	Target Allocation
Equity securities	46%	41%	33% - 43%
Asset allocation and alternative assets	22%	30%	23% - 33%
Debt securities	25%	28%	26% - 42%
Cash and cash equivalents	7%	1%	0% - 2%

Certain of our pension plan assets consist of investments in pooled separate accounts. The NAV of the separate accounts is calculated in a manner consistent with GAAP for investment companies and is determinative of their fair value. Several of the separate accounts invest in publicly quoted mutual funds or actively managed stocks. The fair value of the underlying mutual funds or stock is used to determine the NAV of the separate account, which is not publicly quoted. Some of the separate accounts also invest in fixed income securities. The fair value of the underlying securities is based on quoted prices of similar assets and used to determine the NAV of the separate account. Sale of plan assets may be at values less than NAV. Certain redemption restrictions may apply to specific stock and bond funds, including written notices prior to the withdrawal of funds and a potential redemption fee on certain withdrawals.

Hedge fund investments are recorded at NAV. The Plan's hedge funds invest primarily in other investment funds. The valuation policies of the hedge funds provide that the value of investments in other investment funds be stated at fair value based on the NAV of the other investment funds and certain redemption restrictions may apply, including a 45 day prior written notice to withdraw funds.

Plan fiduciaries set investment policies and strategies and oversee its investment allocation, which includes selecting investment managers, commissioning periodic asset-liability studies, and setting long-term strategic targets. Long-term strategic investment objectives include preserving the funded status of the Plan and balancing risk and return. Target allocation ranges are guidelines, not limitations, and occasionally plan fiduciaries will approve allocations above or below a target range. The Plan does not expect to return any plan assets to the Company during 2018.

The current assumption for the expected long-term rate of return on plan assets is 7.50%. This assumption is determined by analyzing: 1) historical average returns achieved by asset allocation and active management; 2) historical data on the volatility of returns; 3) current yields available in the marketplace; 4) actual returns on plan assets; and 5) current and anticipated future allocation among asset classes. The asset classes used for this analysis are domestic and international equities, investment grade corporate bonds, alternative assets, and cash. The overall rate is derived as a weighted average of the estimated long-term returns on the asset classes represented in the investment portfolio of the Plan. Effective January 1, 2018, the assumption for the expected long-term rate of return on plan assets was reduced to 7.15%.

The assumed discount rate used to determine the benefit obligation was 3.30% for pension benefits and was 3.52% for postemployment benefits. The discount rates were determined by reference to the Citigroup Pension Liability Yield Curve on December 31, 2017. Specifically, the spot rate curve represents the rates on zero coupon securities of the quality and type included in the pension index at various maturities. By discounting benefit cash flows at these rates, a notional amount equal to the fair value of a cash flow defeasing portfolio of bonds was determined. The discount rate for benefits was calculated as a single rate giving the same discounted value as the notional amount.

We adopted the updated mortality tables issued by the Society of Actuaries during 2017. These tables were updated because of additional mortality information and reflect more recent modifications. These modifications generally reduced life expectancy, which may result in a lower benefit obligation for certain pension plans. The result of the adoption of this updated table was a decrease of $1.1 million in the Plan's benefit obligation at December 31, 2017.

The postemployment medical plans for eligible employees and their dependents are contributory with contributions adjusted annually. The benefits expected to be paid in each year from 2018 through 2022 are as follows: $0.6 million in 2018; $0.6 million in 2019; $0.7 million in 2020; $0.7 million in 2021; and $0.7 million in 2022. The aggregate benefits expected to be paid in the five years from 2023 through 2027 are $4.3 million. The expected benefits to be paid are based on the same assumptions used to measure the Company's benefit obligation at December 31, 2017. The 2018 contribution for the postemployment medical plans is estimated to be $0.6 million. The Company pays these medical costs as they become due and the postemployment plan incorporates cost-sharing features. The postemployment plan disclosures included herein do not include the potential impact from the Medicare Act (the Act) that became law in December 2003. The Act introduced a new federal subsidy to sponsors of certain retiree health care plans that provide a benefit that is at least actuarially equivalent to Medicare. Since the Company does not provide benefits that are actuarially equivalent to Medicare, the Act did not impact our disclosures.

Non-contributory defined contribution retirement plans for eligible general agents and sales agents provide supplemental payments based upon earned agency first year individual life and annuity commissions. Contributions to these plans were $0.2 million in both 2017 and 2016, and $0.1 million in 2015. Non-contributory deferred compensation plans for eligible agents based upon earned first year commissions are also offered. Contributions to these plans were $0.3 million in 2017, $0.2 million in 2016, and $0.3 million in 2015.

Savings plans for eligible employees and agents match employee and agent contributions up to 8.00% of salary and 2.50% of agents' prior year paid commissions. Contributions to the savings plans were $2.2 million in 2017 and $2.1 million in both 2016 and 2015. We may contribute an additional profit sharing amount up to 4% of salary for eligible employees, depending upon corporate profits. The Company did not make a profit sharing contribution in 2017, 2016, or 2015.

We recognize the funded status of our pension and postemployment plans, measured as the difference between plan assets at fair value and the projected benefit obligation, in the Consolidated Balance Sheets. Changes in the funded status that arise during the period, but are not recognized as components of net periodic benefit cost, are recognized within other comprehensive income (loss), net of taxes.

The following tables provide information regarding pension benefits and other postemployment benefits (OPEB) for the years ended December 31.

	Pension Benefits		OPEB	
	2017	2016	2017	2016
Change in projected benefit obligation:				
Benefit obligation at beginning of year	$ 133,862	$ 144,395	$ 23,060	$ 34,616
Service cost	—	—	307	518
Interest cost	4,725	5,333	910	1,452
Plan participants' contributions	—	—	461	496
Plan changes	—	(1,538)	—	—
Actuarial (gain) loss	5,188	(1,504)	(5,613)	(13,055)
Benefits paid	(9,543)	(12,824)	(893)	(967)
Benefit obligation at end of year	$ 134,232	$ 133,862	$ 18,232	$ 23,060
Change in plan assets:				
Fair value of plan assets at beginning of year	$ 134,293	$ 130,858	$ —	$ —
Return on plan assets	18,206	10,231	—	—
Plan participants' contributions	—	—	461	496
Company contributions	4,051	6,028	432	471
Benefits paid	(9,543)	(12,824)	(893)	(967)
Fair value of net plan assets at end of year	$ 147,007	$ 134,293	$ —	$ —
Funded status at end of year	$ (12,775)	$ (431)	$ 18,232	$ 23,060

	Pension Benefits		OPEB	
	2017	2016	2017	2016
Amounts recognized in accumulated other comprehensive income (loss):				
Net loss (gain)	$ 69,091	$ 75,108	$ (13,657)	$ (8,877)
Prior service credit	(1,472)	(1,538)	(100)	(925)
Total accumulated other comprehensive income (loss)	$ 67,619	$ 73,570	$ (13,757)	$ (9,802)

	Pension Benefits		OPEB	
	2017	2016	2017	2016
Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss):				
Unrecognized actuarial net gain	$ (3,379)	$ (2,333)	$ (5,613)	$ (13,055)
Unrecognized prior service credit	—	(1,538)	—	—
Amortization of net gain (loss)	(2,638)	(2,649)	833	(96)
Amortization of prior service credit	66	—	825	976
Total (gain) loss recognized in other comprehensive income (loss)	$ (5,951)	$ (6,520)	$ (3,955)	$ (12,175)

	Pension Benefits		OPEB	
	2017	2016	2017	2016
Plans with underfunded accumulated benefit obligation:				
Projected benefit obligation	$ 134,232	$ 133,862	$ —	$ —
Accumulated benefit obligation	134,232	133,862	—	—
Fair value of plan assets	147,007	134,293	—	—
Weighted average assumptions used to determine benefit obligations at December 31:				
Discount rate	3.30%	3.69%	3.52%	4.02%
Weighted average assumptions used to determine net periodic benefit cost for years ended December 31:				
Discount rate	3.69%	3.84%	4.02%	4.26%
Expected return on plan assets	7.50%	7.50%	—%	—

The following table presents the fair value of each major category of pension plan assets at December 31.

	2017	2016
Fixed maturity securities:		
U.S. Government	$ 479	$ 666
Industrial and public utility	11,773	16,050
Investment funds:		
Mutual funds	51,074	44,548
Hedge fund	6,434	18,679
Collective trust	49,381	42,995
Limited partnerships	12,035	10,443
Other invested assets	25	14
Cash and cash equivalents	9,685	723
Receivables	6,148	178
Fair value of assets at end of year	147,034	134,296
Liabilities:		
Accrued liabilities	27	3
Total liabilities	27	3
Fair value of net plan assets at end of year	$ 147,007	$ 134,293

The following tables provide the fair value hierarchy, as described in Note 4, for pension plan assets at December 31.

	2017			
	Level 1	Level 2	Level 3	Total
Fixed maturity securities:				
U.S. Government	$ —	$ 479	$ —	$ 479
Industrial and public utility	—	11,773	—	11,773
Mutual funds	51,074	—	—	51,074
Other invested assets	—	—	25	25
Total assets in the fair value hierarchy	51,074	12,252	25	63,351
Investments measured at net asset value: [1]				
Hedge fund				6,434
Collective trust				49,381
Limited partnerships				12,035
Investments at fair value				$ 131,201

	2016			
	Level 1	Level 2	Level 3	Total
Fixed maturity securities:				
U.S. Government	$ —	$ 666	$ —	$ 666
Industrial and public utility	—	16,050	—	16,050
Mutual funds	44,548	—	—	44,548
Other invested assets	—	—	14	14
Total assets in the fair value hierarchy	44,548	16,716	14	61,278
Investments measured at net asset value: [1]				
Hedge fund				18,679
Collective trust				42,995
Limited partnerships				10,443
Investments at fair value				$ 133,395

[1] These investments are valued based on net asset value per unit. These values are provided by the fund as a practical expedient and have not been classified in the fair value hierarchy.

The following table discloses the changes in Level 3 pension plan assets measured at fair value on a recurring basis for the years ended December 31.

	2017	2016
Beginning balance	$ 14	$ 32
Gains (losses) realized and unrealized	11	(18)
Ending balance	$ 25	$ 14

The following table provides the components of net periodic benefit cost for the years ended December 31.

	Pension Benefits			OPEB		
	2017	2016	2015	2017	2016	2015
Service cost	$ —	$ —	$ —	$ 307	$ 518	$ 686
Interest cost	4,725	5,333	5,424	910	1,452	1,402
Expected return on plan assets	(9,638)	(9,403)	(9,919)	—	—	—
Amortization of:						
Unrecognized actuarial net (gain) loss	2,638	2,649	2,400	(833)	96	471
Unrecognized prior service credit	(66)	—	—	(825)	(976)	(1,146)
Net periodic benefit cost (credit)	(2,341)	(1,421)	(2,095)	(441)	1,090	1,413
Total recognized in other comprehensive income (loss)	(5,951)	(6,520)	1,934	(3,955)	(12,175)	(2,493)
Total recognized in net periodic benefit cost (credit) and other comprehensive income (loss)	$ (8,292)	$ (7,941)	$ (161)	$ (4,396)	$ (11,085)	$ (1,080)

The following table provides the estimated net loss and prior service credit for the pension plan and other postemployment plans that will be amortized from accumulated other comprehensive income (loss) into net periodic benefit cost in 2018.

	Pension Benefits	OPEB
Actuarial net loss (gain)	$ 2,394	$ (1,292)
Prior service credit	(66)	(100)

The assumed growth rate of health care costs has a significant effect on the benefit amounts reported, as the following table demonstrates.

	One Percentage Point Change in the Growth Rate	
	Increase	Decrease
Service and interest cost components	$ 160	$ (126)
Postemployment benefit obligation	2,877	(2,322)

For measurement purposes, the annual increase in the per capita cost of covered health care benefits was assumed to be 7.25%, decreasing gradually to 5.00% in 2028 and thereafter.

14. Share-Based Payment

We have an omnibus incentive plan that includes a long-term incentive benefit for senior management. The plan design includes a cash award to participants that may be paid, in part, based on the increase in the share price of our common stock through units (phantom shares) assigned by the Board of Directors. The cash award is calculated over a three-year interval on a calendar year basis. At the conclusion of each three-year interval, participants will receive a cash award based on the increase in the share price during a defined measurement period, multiplied by the number of units attributable to each participant. The increase in the share price is determined based on the change in the share price from the beginning to the end of the three-year interval. Amounts representing dividends are accrued and paid at the end of each three-year interval to the extent that they exceed negative stock price appreciation. Plan payments are contingent on the continued employment of the participant unless termination is due to a qualifying event such as death, disability, or retirement. In addition, all payments are lump sum with no deferrals allowed. The Company does not make payments in shares, warrants, or options.

The following table provides information about the outstanding three-year intervals at December 31, 2017.

Defined Measurement Period	Number of Units	Grant Price
2015-2017	165,527	$47.87
2016-2018	134,828	$43.495
2017-2019	130,017	$48.01
2018-2020*	155,297	$45.62

* Effective January 1, 2018

The plan made a payment of $0.5 million during 2017 for the three-year interval ended December 31, 2016 and a payment of $1.7 million during 2016 for the three-year interval ended December 31, 2015. The plan made a payment of $3.8 million during 2015 for the three-year interval ended December 31, 2014. The change in accrual that reduced operating expense during 2017 was $0.1 million, net of tax. The cost of share-based compensation accrued as an operating expense during 2016 was $0.9 million, net of tax. The change in accrual that reduced operating expense during 2015 was $0.1 million, net of tax.

15. Reinsurance

The following table provides information about reinsurance for the years ended December 31.

	2017	2016	2015
Life insurance in force (in millions) :			
Direct	$ 28,592	$ 28,838	$ 28,104
Ceded	(13,357)	(13,245)	(13,296)
Assumed	3,217	3,409	3,666
Net	$ 18,452	$ 19,002	$ 18,474
Premiums:			
Life insurance:			
Direct	$ 178,318	$ 171,314	$ 159,692
Ceded	(47,306)	(47,122)	(46,262)
Assumed	2,232	2,304	2,415
Net	$ 133,244	$ 126,496	$ 115,845
Accident and health:			
Direct	$ 57,324	$ 55,400	$ 54,465
Ceded	(10,632)	(10,077)	(10,135)
Net	$ 46,692	$ 45,323	$ 44,330

Ceded Reinsurance Arrangements

Old American has a coinsurance agreement that reinsures certain whole life policies issued by Old American prior to December 1, 1986. These policies had a face value of $17.2 million at December 31, 2017 and $19.4 million at December 31, 2016. The reserve for future policy benefits ceded under this agreement was $10.2 million at December 31, 2017 and $11.5 million at December 31, 2016.

Sunset Life entered into a yearly renewable term reinsurance agreement January 1, 2002, whereby it ceded 80% of its retained mortality risk on traditional and universal life policies. In June 2012, Sunset Life recaptured approximately 9% of the outstanding bulk reinsurance agreement. The insurance in force ceded approximated $763.4 million at December 31, 2017 and $828.5 million at December 31, 2016. Premiums totaled $6.5 million during 2017, $6.8 million during 2016, and $7.0 million during 2015.

Reinsurance recoverables were $185.6 million at year-end 2017, consisting of reserves ceded of $172.0 million and claims ceded of $13.6 million. Reinsurance recoverables were $187.9 million at year-end 2016, consisting of reserves ceded of $175.9 million and claims ceded of $12.0 million.

The maximum retention on any one life during 2017 and 2016 was $0.5 million for ordinary life plans and $0.1 million for group coverage.

The following table reflects our reinsurance partners whose reinsurance recoverable was 5% or greater of our total reinsurance recoverable at December 31, 2017, along with their A.M. Best credit rating.

	A.M. Best Rating	Reinsurance Recoverable	% of Recoverable
TransAmerica Life Insurance Company	A+	$ 44,745	24%
Security Life of Denver	A	23,093	12%
RGA Reinsurance Company	A+	21,430	12%
Union Security Insurance Company	A-	12,135	7%
Employers Reassurance Corporation	A-	10,513	6%
Lewer Life Insurance Company	B	10,222	5%
Other (22 Companies)		63,509	34%
Total		$ 185,647	100%

A contingent liability exists with respect to reinsurance, which may become a liability of the Company in the unlikely event that the reinsurers should be unable to meet obligations assumed under reinsurance contracts. The solvency of reinsurers is reviewed annually.

We monitor several factors that we consider relevant as to the ongoing ability of a reinsurer to meet the obligations of the reinsurance agreements. These factors include the credit rating of the reinsurer and significant changes or events of the reinsurer. If we believe that any reinsurer would not be able to satisfy its obligations with us, a separate contingency reserve may be established. At year-end 2017 and 2016, no reinsurer met these conditions. In addition, we review the credit rating and financial statements of a reinsurer before entering into any new agreements.

Assumed Reinsurance Arrangements

We acquired a block of traditional life and universal life products in 1997 through a 100% coinsurance and servicing arrangement. Investments equal to the statutory policy reserves are held in a trust to secure payment of the estimated liabilities relating to the policies. This block had $796.6 million of life insurance in force at December 31, 2017 and $863.7 million of life insurance in force at December 31, 2016. This block generated life insurance premiums of $2.1 million in 2017, $2.2 million in 2016, and $2.3 million in 2015.

We acquired a block of variable universal life insurance policies and variable annuity contracts from American Family Life Insurance Company in 2013. The transfer was comprised of a 100% modified coinsurance transaction on the separate account business and a 100% coinsurance transaction for the corresponding fixed account business. Included in the transaction are ongoing servicing arrangements for this business. This block consisted of $331.0 million of separate account balances at December 31, 2017, which are included in the financial statements of American Family, compared to $295.7 million at December 31, 2016. This block consisted of $0.6 million of future policy benefits and $30.2 million in fixed fund balances that are included in Policyholder Account Balances in the Company's Consolidated Balance Sheets at December 31, 2017. This block consisted of $0.6 million of future policy benefits and $28.5 million in fixed fund balances at December 31, 2016.

16. Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income and other comprehensive income (loss). Other comprehensive income (loss) includes the unrealized investment gains or losses on securities available for sale (net of reclassifications for realized investment gains or losses), net of adjustments to DAC, VOBA, DRL, future policy benefits, and policyholder account balances. In addition, other comprehensive income (loss) includes the change in the liability for benefit plan obligations. Other comprehensive income (loss) reflects these items net of tax.

The following tables provide information about comprehensive income (loss).

	Year Ended December 31, 2017		
	Pre-Tax Amount	Tax Expense (Benefit)	Net-of-Tax Amount
Net unrealized gains arising during the year:			
Fixed maturity securities	$ 2,854	$ 1,001	$ 1,853
Equity securities	827	289	538
Less reclassification adjustments:			
Net realized investment gains, excluding impairment losses	2,474	866	1,608
Other-than-temporary impairment losses recognized in earnings	—	—	—
Other-than-temporary impairment losses recognized in other comprehensive income	(7)	(2)	(5)
Net unrealized gains excluding impairment losses	1,214	426	788
Change in benefit plan obligations	9,906	3,467	6,439
Effect on DAC, VOBA, and DRL	1,929	675	1,254
Future policy benefits	2,987	1,045	1,942
Policyholder account balances	102	36	66
Other comprehensive income	$ 16,138	$ 5,649	$ 10,489
Net income			51,541
Comprehensive income			$ 62,030

	Year Ended December 31, 2016		
	Pre-Tax Amount	Tax Expense (Benefit)	Net-of-Tax Amount
Net unrealized gains (losses) arising during the year:			
Fixed maturity securities	$ 2,201	$ 771	$ 1,430
Equity securities	(551)	(193)	(358)
Less reclassification adjustments:			
Net realized investment gains, excluding impairment losses	5,139	1,799	3,340
Other-than-temporary impairment losses recognized in earnings	(563)	(196)	(367)
Other-than-temporary impairment losses recognized in other comprehensive income	(57)	(21)	(36)
Net unrealized losses excluding impairment losses	(2,869)	(1,004)	(1,865)
Change in benefit plan obligations	18,695	6,543	12,152
Effect on DAC, VOBA, and DRL	2,427	850	1,577
Future policy benefits	(3,016)	(1,056)	(1,960)
Policyholder account balances	(16)	(6)	(10)
Other comprehensive income	$ 15,221	$ 5,327	$ 9,894
Net income			22,316
Comprehensive income			$ 32,210

	Year Ended December 31, 2015		
	Pre-Tax Amount	Tax Expense (Benefit)	Net-of-Tax Amount
Net unrealized losses arising during the year:			
Fixed maturity securities	$ (78,242)	$ (27,386)	$ (50,856)
Equity securities	(46)	(16)	(30)
Less reclassification adjustments:			
Net realized investment gains, excluding impairment losses	3,048	1,067	1,981
Other-than-temporary impairment losses recognized in earnings	(2,189)	(766)	(1,423)
Other-than-temporary impairment losses recognized in other comprehensive loss	(292)	(103)	(189)
Net unrealized losses excluding impairment losses	(78,855)	(27,600)	(51,255)
Change in benefit plan obligations	560	196	364
Effect on DAC, VOBA, and DRL	11,465	4,013	7,452
Future policy benefits	7,559	2,646	4,913
Policyholder account balances	425	149	276
Other comprehensive loss	$ (58,846)	$ (20,596)	$ (38,250)
Net income			29,226
Comprehensive loss			$ (9,024)

The following table provides accumulated balances related to each component of accumulated other comprehensive income (loss) at December 31, 2017, net of tax. This table reflects the adoption of the FASB guidance regarding the reclassification of certain stranded tax effects from accumulated other comprehensive income (loss) that we adopted effective December 31, 2017.

	Unrealized Gain on Non-Impaired Securities	Unrealized Gain on Impaired Securities	Benefit Plan Obligations	DAC/ VOBA/ DRL Impact	Future Policy Benefits	Policyholder Account Balances	Total
Beginning of year	$ 58,633	$ 1,750	$ (41,448)	$ (9,492)	$ (14,453)	$ (306)	$ (5,316)
Other comprehensive income before reclassification	2,357	34	6,439	1,225	1,942	66	12,063
Amounts reclassified from accumulated other comprehensive income (loss)	(1,608)	5	—	29	—	—	(1,574)
Net current period other comprehensive income	749	39	6,439	1,254	1,942	66	10,489
Cumulative effect of adoption of new accounting principle	12,790	385	(7,540)	(1,774)	(2,695)	(51)	1,115
End of year	$ 72,172	$ 2,174	$ (42,549)	$ (10,012)	$ (15,206)	$ (291)	$ 6,288

The following table provides accumulated balances related to each component of accumulated other comprehensive income (loss) at December 31, 2016, net of tax.

	Unrealized Gain on Non-Impaired Securities	Unrealized Gain on Impaired Securities	Benefit Plan Obligations	DAC/ VOBA/ DRL Impact	Future Policy Benefits	Policyholder Account Balances	Total
Beginning of year	$ 59,163	$ 3,085	$ (53,600)	$ (11,069)	$ (12,493)	$ (296)	$ (15,210)
Other comprehensive income (loss) before reclassification	(3,870)	(932)	12,152	1,689	(1,960)	(10)	7,069
Amounts reclassified from accumulated other comprehensive income (loss)	3,340	(403)	—	(112)	—	—	2,825
Net current period other comprehensive income (loss)	(530)	(1,335)	12,152	1,577	(1,960)	(10)	9,894
End of year	$ 58,633	$ 1,750	$ (41,448)	$ (9,492)	$ (14,453)	$ (306)	$ (5,316)

The following table presents the pre-tax and the related income tax benefit (expense) components of the amounts reclassified from accumulated other comprehensive income (loss) to the Consolidated Statements of Comprehensive Income for the years ended December 31.

	2017	2016	2015
Reclassification adjustments related to unrealized gains (losses) on investment securities:			
Net realized investment gains, excluding impairment losses [1]	$ 2,474	$ 5,139	$ 3,048
Income tax expense [2]	(866)	(1,799)	(1,067)
Net of taxes	1,608	3,340	1,981
Other-than-temporary impairment losses [1]	(7)	(620)	(2,481)
Income tax benefit [2]	2	217	869
Net of taxes	(5)	(403)	(1,612)
Reclassification adjustment related to DAC, VOBA, and DRL [1]	(44)	(173)	(38)
Income tax benefit [2]	15	61	13
Net of taxes	(29)	(112)	(25)
Total pre-tax reclassifications	2,423	4,346	529
Total income tax expense	(849)	(1,521)	(185)
Total reclassification, net taxes	$ 1,574	$ 2,825	$ 344

[1] (Increases) decreases net realized investment gains (losses) on the Consolidated Statements of Comprehensive Income.

[2] (Increases) decreases income tax expense on the Consolidated Statements of Comprehensive Income.

17. Earnings per Share

Due to our capital structure and the absence of other potentially dilutive securities, there is no difference between basic and diluted earnings per common share for any of the years reported. The average number of shares outstanding were 9,683,414 shares during 2017 and 2016, and 10,614,068 shares during 2015. The number of shares outstanding at both December 31, 2017 and December 31, 2016 was 9,683,414.

18. Segment Information

We have three reportable business segments, which are defined based on the nature of the products and services offered: Individual Insurance, Group Insurance, and Old American. The Individual Insurance segment consists of individual insurance products for both Kansas City Life and Sunset Life and the assumed reinsurance transactions. The Group Insurance segment consists of sales of group life, dental, vision, and group disability products. The Old American segment consists of individual insurance products designed largely as final expense products.

Insurance revenues, as shown in the Consolidated Statements of Comprehensive Income, consist of premiums and contract charges, less reinsurance ceded. Insurance revenues are defined as "customer revenues" for segment reporting purposes. Separate investment portfolios are maintained for Kansas City Life, Sunset Life, and Old American for segment reporting purposes. Investment assets and income are allocated to the Group Insurance segment based upon its cash flows and future policy benefit liabilities. Policyholder benefits are specifically identified to the respective segment. Most home office functions are fully integrated for all segments in order to maximize economies of scale. Therefore, operating expenses are allocated to the segments based upon internal cost studies, which are consistent with industry cost methodologies.

Inter-segment revenues are not material. We operate solely in the United States of America and no individual customer accounts for 10% or more of our revenue.

The following tables provide selected financial statement items of each of the operating segments for the years ended December 31. Intercompany transactions have been eliminated to arrive at Consolidated Statements of Comprehensive Income.

	2017			
	Individual Insurance	Group Insurance	Old American	Consolidated
Insurance revenues (customer revenues)	$ 145,449	$ 59,569	$ 88,935	$ 293,953
Interest credited to policyholder account balances	72,921	—	—	72,921
Amortization of deferred acquisition costs	15,916	—	18,805	34,721
Income tax expense (benefit)	(16,687)	910	(6,395)	(22,172)
Net income	41,005	1,690	8,846	51,541
Assets	4,120,410	9,710	400,550	4,530,670

	2016			
	Individual Insurance	Group Insurance	Old American	Consolidated
Insurance revenues (customer revenues)	$ 141,557	$ 56,967	$ 84,429	$ 282,953
Interest credited to policyholder account balances	72,814	—	—	72,814
Amortization of deferred acquisition costs	10,070	—	17,763	27,833
Income tax expense	8,108	44	576	8,728
Net income	20,974	86	1,256	22,316
Assets	4,051,014	8,834	389,565	4,449,413

	2015			
	Individual Insurance	Group Insurance	Old American	Consolidated
Insurance revenues (customer revenues)	$ 137,001	$ 55,576	$ 79,628	$ 272,205
Interest credited to policyholder account balances	74,326	—	—	74,326
Amortization of deferred acquisition costs	13,411	—	14,937	28,348
Income tax expense	11,111	166	1,693	12,970
Net income	25,969	308	2,949	29,226
Assets	4,035,016	9,299	377,558	4,421,873

19. Quarterly Consolidated Financial Data (unaudited)

The unaudited quarterly results of operations for the years ended December 31 are summarized in the following table.

	First	Second	Third	Fourth
2017:				
Total revenues	$ 111,237	$ 115,277	$ 112,014	$ 112,174
Total benefits and expenses	103,983	107,360	102,671	107,319
Net income	5,168	5,612	6,648	34,113
Per common share, basic and diluted	0.53	0.58	0.69	3.52
2016:				
Total revenues	$ 112,554	$ 108,524	$ 112,209	$ 111,735
Total benefits and expenses	106,321	101,002	102,055	104,600
Net income	4,257	5,242	7,193	5,624
Per common share, basic and diluted	0.44	0.54	0.74	0.58

20. Statutory Information and Stockholder Dividends Restriction

The following table provides Kansas City Life's net gain from operations, net income, and capital and surplus (stockholders' equity) on the statutory basis used to report to regulatory authorities for the years ended December 31.

	2017	2016	2015
Net gain from operations	$ 14,440	$ 11,457	$ 27,390
Net income	15,977	12,457	29,149
Capital and surplus	307,501	323,304	297,612

The decrease in capital and surplus in 2017 was largely attributable to changes in net deferred income tax of $25.1 million, stockholder dividends paid of $10.5 million, and changes in net unrealized capital losses of $10.2 million. These changes were partially offset by net income of $16.0 million, a $10.4 million reduction in the liability for pension and OPEB, and a $4.2 million decrease in nonadmitted assets. The change in net deferred income tax largely resulted from the remeasurement of deferred taxes to reflect the reduced corporate federal income tax rate of 21% as defined under the TCJA. The change in capital and surplus in 2016 was largely attributable to a $19.9 million reduction in the liability for pension and OPEB, net income of $12.5 million, and a $7.0 million increase in net unrealized gains. These changes were partially offset by stockholder dividends paid of $10.5 million and a $4.6 million increase in asset valuation reserve.

Kansas City Life recognizes its 100% ownership in Old American and Sunset Life under the equity method with subsidiary earnings recorded through surplus on a statutory accounting basis. Capital and surplus at December 31, 2017 in the above table includes capital and surplus of $21.7 million for Old American and $25.2 million for Sunset Life.

Stockholder dividends may not exceed statutory unassigned surplus. Additionally, under Missouri law, the Company must have the prior approval of the Missouri Director of Insurance to pay dividends in any consecutive twelve-month period exceeding the greater of statutory net gain from operations for the preceding year or 10% of statutory stockholders' equity at the end of the preceding year. We believe that Kansas City Life, as the parent company, has sufficient cash resources, independent of dividends paid by its affiliates, to satisfy its own stockholder dividend payments. In addition, we believe that individually each of the insurance enterprises has sufficient cash flows to satisfy the anticipated cash dividends that are expected to be declared.

The maximum stockholder dividends payable by Kansas City Life without prior approval in 2018 is $30.8 million, 10% of December 31, 2017 capital and surplus. The maximum stockholder dividends payable by Old American without prior approval in 2018 is $2.3 million, 10% of December 31, 2017 capital and surplus. The maximum stockholder dividends payable by Sunset Life without prior approval in 2018 is $2.5 million, 10% of December 31, 2017 capital and surplus. We believe that the statutory limitations impose no practical restrictions on the dividend payment plans of our three insurance companies.

Insurance companies are monitored and evaluated by state insurance departments as to the financial adequacy of statutory capital and surplus in relation to each company's risks. One such measure is through the risk-based capital (RBC) guidelines. RBC requirements are intended to be used by insurance regulators as an early warning tool to identify deteriorating or weakly capitalized insurance companies for the purpose of initiating regulatory action. RBC guidelines consist of target statutory surplus levels based on the relationship of statutory capital and surplus to the sum of weighted risk exposures. The RBC calculation determines both an authorized control level and a total adjusted capital prepared on the RBC basis. Generally, regulatory action is at 150% of the authorized control level. Each of the three insurance companies was within the range of approximately 700% to 1,100%, well in excess of the control level at December 31, 2017.

We are required to deposit a defined amount of assets with state regulatory authorities. Such assets had a statutory carrying value of $12.3 million at December 31, 2017 and $12.1 million at both December 31, 2016 and December 31, 2015.

21. Commitments, Contingent Liabilities, Guarantees, and Indemnifications

Commitments

In the normal course of business, we have open purchase and sale commitments. At December 31, 2017, we had purchase commitments to fund mortgage loans of $6.5 million.

Subsequent to December 31, 2017 we entered into commitments to fund additional mortgage loans of $7.8 million.

Contingent Liabilities

We are defendants in, or subject to, other claims or legal actions related to insurance and investment products. Some of these claims and legal actions are in jurisdictions where juries are given substantial latitude in assessing damages, including punitive damages.

We are involved in litigation from time to time both as a defendant and as a plaintiff, in the ordinary course of business. Although no assurances can be given and no determinations can be made at this time, management believes that the ultimate liability, if any, with respect to these legal actions and other claims would not have a material effect on our business, financial position, or results of operations.

In accordance with applicable accounting guidelines, we establish an accrued liability for litigation and regulatory matters, when those matters present loss contingencies that are both probable and estimable. As a litigation or regulatory matter develops, it is evaluated on an ongoing basis, often in conjunction with outside counsel, as to whether the matter presents a loss contingency that meets conditions indicating the need for accrual and/or disclosure. If and when a loss contingency related to litigation or regulatory matters is deemed to be both probable and estimable, we establish an accrued liability. This accrued liability is then monitored for further developments that may affect the amount of the accrued liability.

Based on currently available information, we do not believe that any litigation, proceeding, or other matter to which we are a party or otherwise involved will have a material adverse effect on our financial condition or cash flows. However, in light of the uncertainties involved in such matters, we are unable to predict the outcome or the timing of the ultimate resolution of these matters.

We are subject to regular reviews and inspections by state and federal regulatory authorities. State insurance examiners - or independent audit firms engaged by such examiners - may, from time to time, conduct examinations or investigations into industry practices and into customer complaints. A regulatory violation discovered during a review, inspection, or investigation could result in a wide range of remedies that could include the imposition of sanctions against us or our employees, which could have a material adverse effect on our financial statements. The Missouri Department of Insurance most recently completed an examination based upon our statutory financial statements for the year ended December 31, 2014 for Kansas City Life, Sunset Life, and Old American. No recommendations or financial adjustments were required of any of the insurance companies as a result of that examination.

The life insurance industry has been the subject of significant regulatory and legal activities regarding the use of the U.S. Social Security Administration's Death Master File ("Death Master File") in the claims process. Certain states have proposed, and many other states are considering, new legislation and regulations related to unclaimed life insurance benefits and the use of the Death Master File in the claims process. Based on our analysis to date, we believe that we have adequately reserved for contingencies

from a change in statute or regulation. Ongoing regulatory developments and other future requirements related to this matter may result in additional payments or costs that could be significant and could have a material adverse effect on our financial statements.

Guarantees and Indemnifications

We are subject to various indemnification obligations issued in conjunction with certain transactions, primarily assumption reinsurance agreements, stock purchase agreements, mortgage servicing agreements, tax credit assignment agreements, construction and lease guarantees, and borrowing agreements whose terms range in duration and often are not explicitly defined. Generally, a maximum obligation is not explicitly stated. Therefore, the overall maximum amount of the obligation under the indemnifications cannot be reasonably estimated. We are unable to estimate with certainty the ultimate legal and financial liability with respect to these indemnifications. We believe that the likelihood is remote that material payments would be required under such indemnifications and, therefore, such indemnifications would not result in a material adverse effect on our financial position or financial statements.

22. Subsequent Events

We evaluated events that occurred subsequent to December 31, 2017 through February 26, 2018, the date the consolidated financial statements were issued.

On January 22, 2018, the Kansas City Life Board of Directors declared a quarterly dividend of $0.27 per share, paid on February 7, 2018 to stockholders of record on February 1, 2018.

There have been no other subsequent events that occurred during such period that require disclosure in, or adjustment to, the consolidated financial statements as of and for the year ended December 31, 2017.

Independent Auditor's Report

The Audit Committee and Stockholders
Kansas City Life Insurance Company

We have audited the accompanying consolidated financial statements of Kansas City Life Insurance Company and subsidiaries, which comprise the consolidated balance sheets as of December 31, 2017 and 2016, and the related consolidated statements of comprehensive income, stockholders' equity and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Kansas City Life Insurance Company and its subsidiaries as of December 31, 2017 and 2016, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Prior Year Audited by Other Auditors

The consolidated financial statements as of and for the year ended December 31, 2015, were audited by other auditors and their report thereon, dated March 10, 2016, expressed an unmodified opinion.

/s/ BKD, LLP

Kansas City, Missouri
February 26, 2018

Management's Discussion and Analysis of Financial Condition and Results of Operations

Amounts are stated in thousands, except share data, or as otherwise noted.

Management's Discussion and Analysis of Financial Condition and Results of Operations provides, in narrative form, the perspective of the management of Kansas City Life Insurance Company on its financial condition, results of operations, liquidity, and certain other factors that may affect its future results. The terms "the Company," "we," "us," and "our" are used to refer to Kansas City Life Insurance Company and its subsidiaries. Kansas City Life Insurance Company (Kansas City Life) is the parent company. Sunset Life Insurance Company of America (Sunset Life) and Old American Insurance Company (Old American) are wholly-owned subsidiaries. We also have non-insurance subsidiaries that individually and collectively are not material. This discussion should be read in conjunction with the consolidated financial statements and accompanying notes included in this document.

Overview

Our profitability depends on many factors, which include but are not limited to:

- The sale of traditional and interest sensitive life, annuity, and accident and health products;
- The rate of mortality, lapse, and surrenders of future policy benefits and policyholder account balances;
- The rate of morbidity, disability, and incurrence of other policyholder benefits;
- Interest rates credited to policyholders;
- The effectiveness of reinsurance programs;
- The amount of investment assets under management;
- The ability to maximize investment returns and manage risks such as interest rate risk, credit risk, and equity risk;
- Timely and cost-effective access to liquidity; and
- Management of distribution costs and operating expenses.

General economic conditions may affect future results. Market fluctuations, which often can be extreme in nature, can significantly impact the financial markets and our investments, revenues, and policyholder benefits. The sustained low interest rate environment and volatile equity markets have presented significant challenges to the financial markets as a whole and specifically to companies invested in fixed maturity securities and other fixed income investments. These conditions may continue and the stressed economic and market environment may persist into the future, affecting our financial position and financial statements.

Statement on Forward-Looking Information

This report reviews the consolidated financial condition and results of operations of Kansas City Life Insurance Company. Historical information is presented and discussed. Where appropriate, factors that may affect future financial performance are also identified and discussed. Certain statements made in this report include "forward-looking statements." Forward-looking statements include any statement that may predict, forecast, indicate or imply future results, performance, or achievements rather than historical facts and may contain words like "believe," "expect," "estimate," "project," "forecast," "anticipate," "plan," "will," "shall," and other words, phrases, or expressions with similar meaning.

Forward-looking statements are subject to known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those contemplated by the forward-looking statements. Factors that could cause future results to differ materially from expected results include, but are not limited to:

- Changes in general economic conditions, including the performance of financial markets and interest rates;
- Increasing competition and changes in consumer behavior, which may affect our ability to sell our products and retain business;
- Increasing competition in the recruitment and retention of new general agents and agents;
- Customer and agent response to new products, distribution channels, and marketing initiatives;
- Fluctuations in experience regarding current mortality, morbidity, persistency, and interest rates relative to expected amounts used in pricing our products;
- Changes in assumptions related to DAC, VOBA, and DRL;
- Regulatory, accounting, or tax changes that may affect the cost of, or the demand for, our products or services; and
- Unanticipated changes in industry trends and ratings assigned by nationally recognized rating organizations.

No assurances can be given that such statements will prove to be correct. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results.

Consolidated Results of Operations

Summary of Results

We earned net income of $51.5 million in 2017 compared to $22.3 million in 2016. Net income per share was $5.32 in 2017 versus $2.30 in 2016. Contributing to the higher income in 2017 were a decrease in income tax expense and an increase in insurance revenues. Partially offsetting these items was a decrease in net investment income and increases in amortization of deferred acquisition costs and operating expenses. Additional information on these items is presented below.

The following table presents condensed consolidated results of operations for the years ended December 31.

	2017	2016	% Change
Revenues:			
Insurance and other revenues	$ 300,366	$ 289,525	4 %
Net investment income	145,825	150,608	(3)%
Net realized investment gains	4,511	4,889	(8)%
Benefits and expenses:			
Policyholder benefits and interest credited to policyholder account balances	283,720	284,680	— %
Amortization of deferred acquisition costs	34,721	27,833	25 %
Operating expenses	102,892	101,465	1 %
Income tax expense (benefit)	8,315	8,728	(5)%
Adjustment to deferred taxes for enacted changes in tax laws	(30,487)	—	— %
Net income	$ 51,541	$ 22,316	131 %

Insurance Revenues

Insurance revenues consist of premiums, net of reinsurance, from the sale of traditional individual and group life insurance products, immediate annuities, and accident and health products, as well as contract charges from interest sensitive and deposit-type products. Insurance revenues are impacted by the level of new sales, the type of products sold, the persistency of policies, general economic conditions, and competitive forces.

The following table presents gross premiums on new and renewal business, less reinsurance ceded, for the years ended December 31. New premiums are also detailed by product.

	2017	2016	% Change
New premiums:			
Traditional life insurance	$ 21,793	$ 20,291	7 %
Immediate annuities	26,589	27,388	(3)%
Group life insurance	3,197	2,785	15 %
Group accident and health insurance	11,681	12,876	(9)%
Total new premiums	63,260	63,340	— %
Renewal premiums	174,614	165,678	5 %
Total premiums	237,874	229,018	4 %
Reinsurance ceded	(57,938)	(57,199)	1 %
Net premiums	$ 179,936	$ 171,819	5 %

Consolidated total premiums increased $8.9 million or 4% in 2017 compared to 2016. Total new premiums were essentially flat compared to the prior year. New traditional life premiums increased $1.5 million or 7%, largely from the Individual Insurance segment. In addition, new group life premiums increased $0.4 million or 15%. Partially offsetting this was a $1.2 million or 9% decrease in new group accident and health premiums, as a $1.9 million decline in new long-term disability premiums was partially offset by a $0.7 million increase in new dental premiums. In addition, new immediate annuity premiums declined $0.8 million or 3%. Immediate annuity receipts can have sizeable fluctuations, as receipts from policyholders largely result from one-time premiums. Total renewal premiums increased $8.9 million or 5% in 2017 compared to 2016, reflecting a $5.0 million or 4% increase in renewal traditional life premiums, a $3.2 million or 8% increase in renewal group accident and health premiums, and a $0.8 million or 8% increase in renewal group life premiums. The increase in renewal traditional life insurance premiums was largely from the Old American segment and the increase in renewal group accident and health premiums was primarily from the long-term disability line.

Deposits related to interest sensitive life (universal life, indexed universal life, and variable universal life), fixed deferred annuity contracts, and investment-type products are not recorded as revenue. Revenues from such contracts consist of amounts assessed on policyholder account balances for mortality, policy administration, and surrender charges, and are recognized as contract charges in the Consolidated Statements of Comprehensive Income. The following table provides detail by new and renewal deposits for the years ended December 31. New deposits are also detailed by product.

	2017	2016	% Change
New deposits:			
Interest sensitive life	$ 14,506	$ 13,595	7 %
Fixed annuities	57,249	50,250	14 %
Variable annuities	15,092	9,799	54 %
Total new deposits	86,847	73,644	18 %
Renewal deposits	139,466	142,044	(2)%
Total deposits	$ 226,313	$ 215,688	5 %

General economic conditions and interest rates available in the marketplace influence new deposits on interest sensitive products. In addition, fluctuations in the equity markets influence the variable life and annuity products. Generally, low interest rate environments present significant challenges to products such as these, and potential sizeable fluctuations in new sales can result.

Total new deposits increased $13.2 million or 18% in 2017 compared to 2016. This improvement was due to a $7.0 million or 14% increase in new fixed annuity deposits, a $5.3 million or 54% increase in new variable annuity deposits, and a $0.9 million or 7% increase in new interest sensitive life deposits. The increase in new interest sensitive life deposits was from the indexed universal life products. Total renewal deposits declined $2.6 million or 2% in 2017 versus one year earlier, largely due to a $1.9 million or 15% decrease in renewal variable annuity deposits and a $1.1 million or 4% decrease in renewal variable universal life deposits. This was partially offset by a $0.8 million or 1% increase in renewal interest sensitive life deposits.

Contract charges result from charges and fees on interest-sensitive and deposit-type products. We maintain both open blocks and closed blocks of business. The closed blocks of business reflect products and entities that have been purchased and for which we are not actively pursuing marketing efforts to generate new sales. We continue to service these policies to support customers and to meet long-term profit objectives as these blocks of business decline over time. Contract charges are also potentially impacted by unlocking adjustments, as discussed below.

Total contract charges increased $2.9 million or 3% in 2017 relative to the prior year. Contract charges on open blocks increased $4.4 million or 6% and contract charges on closed blocks declined $1.5 million or 3% in 2017 compared to the prior year.

The largest factor in the increase in contract charges on open blocks in 2017 was the variance in deferred revenue unlocking adjustments and refinements in estimates during 2017 compared to 2016. Deferred revenue unlocking adjustments and refinements in estimates increased contract charges $2.0 million in 2017, primarily due to the implementation of specific cost of insurance charges for certain plans. Unlocking adjustments and refinements in estimates in 2016 decreased contract charges $1.0 million, primarily due to changes in earned rate expectations.

Total contract charges on closed blocks equaled 39% of total consolidated contract charges during 2017, down from 41% in 2016. The decline in contract charges on closed blocks in 2017 reflected the runoff of the business.

Investment Revenues
Gross investment income decreased $3.8 million or 2% in 2017 compared to one year earlier. This decline reflected lower overall yields earned and available on certain investments that were partially offset by higher average invested assets. In addition, investment expenses increased $1.0 million or 6% in 2017 compared to 2016, primarily due to an increase in real estate expenses.

Fixed maturity securities provide a majority of our investment income. Fixed maturity securities totaled 72% of our investments at December 31, 2017 compared to 73% at December 31, 2016. Income from these investments declined $6.4 million or 6% in 2017 compared to 2016, reflecting lower average invested assets and lower yields earned.

Investment income from commercial mortgage loans was essentially flat in 2017 compared to one year earlier. Lower prepayment fees and lower yields earned were offset by a higher average mortgage loan portfolio balance compared to the prior year.

Investment income from real estate increased $2.8 million or 15% in 2017 compared to the prior year. This improvement reflected higher rental income from the acquisition of new properties, increased occupancy, and lease rates. Partially offsetting these improvements, real estate expenses also increased as a result of the acquisition of new properties.

We recorded net realized investment gains of $4.5 million in 2017. Gains recorded in 2017 included $0.8 million from sales of investment securities, $2.1 million from investment securities called, and $1.2 million from the sale of real estate. Partially offsetting these gains was a $0.7 million increase in the allowance for mortgage loan losses.

Policyholder Benefits
Policyholder benefits, net of reinsurance, consist of death benefits, immediate annuity benefits, accident and health benefits, surrenders, other benefits, and the associated increase or decrease in reserves for future policy benefits and policyholder account balances. The largest component of policyholder benefits was death benefits for the periods presented. Death benefits reflect mortality results, after consideration of the impact of reinsurance.

Policyholder benefits decreased $1.1 million or 1% in 2017 compared to 2016. A $2.3 million or 1% increase in surrenders and benefits, net of reinsurance was offset by a $3.4 million or 18% decrease in benefit and contract reserves. Several factors contributed to the decrease in reserves. Changes in the fair value of the GMWB rider resulted in a $1.7 million decrease in benefit and contract reserves compared to the prior year. The results in 2017 reflected improvements in the capital markets. Also contributing to the decrease in reserves was a $0.8 million decline in immediate annuity premiums, which results in a decrease to the change in reserves on an equal and offsetting basis. In addition, the change in reserves included a $0.3 million decrease in reserves on interest bonuses for certain policies that resulted from unlocking and refinements in 2017. This compares to a $1.1 million increase in reserves on interest bonuses for certain policies and a $2.6 million reserve increase on the secondary guaranteed universal life product in 2016. The difference in these unlocking and refinements resulted in a net decrease in reserves of $3.4 million in 2017 compared to 2016.

Amortization of DAC
The amortization of DAC increased $6.9 million or 25% in 2017 compared to the prior year. This increase primarily reflects unlocking adjustments and refinements in estimates that increased DAC amortization $1.7 million in 2017 compared to unlocking adjustments and refinements in estimates that decreased DAC amortization $5.8 million in 2016. The unlocking in 2017 was primarily driven by low interest rates and the implementation of specific cost of insurance charges for certain plans. The unlocking in 2016 was associated with favorable adjustments for mortality, partially offset by adjustments related to interest rates. In addition, amortization of DAC increased $1.0 million at the Old American segment due to the overall growth of the business. Partially offsetting the increases, DAC amortization decreased due to improved separate account performance.

Operating Expenses
Operating expenses consist of incurred commission expense from the sale of insurance products, net of the deferral of certain commissions and certain expenses directly associated with the successful acquisition of new business, expenses from our operations, the amortization of VOBA, and other expenses. Operating expenses increased $1.4 million or 1% in 2017 compared to one year earlier. This increase was primarily due to the reduction in fair value of a long-lived asset and to an increase in VOBA amortization. These were partially offset by lower compensation costs and legal fees.

VOBA is evaluated on an ongoing basis for unlocking adjustments. If necessary, adjustments are made to the current period VOBA amortization. The amortization of VOBA increased $0.8 million or 32% in 2017. This increase was largely due to unlocking adjustments that increased VOBA amortization $1.2 million in 2017. This compares to unlocking adjustments that decreased VOBA amortization $0.5 million in 2016. The unlocking in 2017 was primarily driven by lower interest rates. The unlocking in 2016 was associated with favorable adjustments for mortality, expenses, surrenders, and premium persistency, partially offset by adjustments related to interest rates.

Income Taxes
We recorded an income tax benefit of $22.2 million or 75% of income before tax in 2017. We recorded an income tax expense of $8.7 million or 28% of income before tax in 2016. The decrease in the effective tax rate in 2017 versus 2016 was due to permanent differences, tax credits from affordable housing investments, and the remeasurement of deferred taxes to reflect the reduced corporate federal income tax rate of 21%. The impact of the TCJA provided a $30.5 million benefit.

The effective income tax rate was lower than the prevailing corporate federal income tax rate of 35% in 2017 and 2016, due to permanent differences, including the dividends-received deduction, tax credits from affordable housing investments, and the remeasurement of deferred taxes to reflect the reduced corporate federal income tax rate of 21% as a result of the TCJA. For additional information, please see Note 12 - Income Taxes.

Analysis of Investments

This analysis of investments should be read in conjunction with Note 3 included in this document.

The following table provides asset class detail of the investment portfolio at December 31.

	2017	% of Total	2016	% of Total
Fixed maturity securities	$ 2,535,064	72%	$ 2,530,907	72%
Equity securities	20,770	1%	23,996	1%
Mortgage loans	649,542	18%	630,889	18%
Real estate	193,219	6%	195,621	6%
Policy loans	78,175	2%	79,893	2%
Short-term investments	32,195	1%	27,526	1%
Other investments	2,424	—	1,388	—
Total	$ 3,511,389	100%	$ 3,490,220	100%

Fixed maturity securities were the largest component of our total investments at December 31, 2017. The largest categories of fixed maturity securities at December 31, 2017 consisted of 80% in corporate securities, 8% in municipal securities, and 5% in U.S. Treasury securities and obligations of the U.S. Government. Fixed maturity securities had unrealized gains of $103.5 million and unrealized losses of $10.9 million at December 31, 2017.

We use actual or equivalent Standard & Poor's ratings to determine the investment grading of fixed maturity securities. Our fixed maturity securities that were rated above investment grade were 97% at December 31, 2017, compared to 96% at December 31, 2016.

The fair value of fixed maturity securities with unrealized losses was $497.5 million at December 31, 2017, compared with $516.9 million one year earlier. This decrease primarily reflected a tightening in overall market spreads during 2017. In particular, the energy asset class experienced improved performance during the year. At December 31, 2017, 94% of security investments with an unrealized loss were investment grade and accounted for 71% of the total unrealized losses. At December 31, 2016, 94% of securities with an unrealized loss were investment grade and accounted for 85% of the total unrealized losses.

At December 31, 2017, we had $105.1 million in gross unrealized gains on fixed maturity and equity securities that offset $10.9 million in gross unrealized losses. At December 31, 2016, we had $111.9 million in gross unrealized gains on fixed maturity and equity securities that offset $19.0 million in gross unrealized losses. At December 31, 2017, 80% of the fixed maturity and equity securities portfolio had unrealized gains, up slightly from 79% at December 31, 2016. We had a decrease in gross unrealized losses in most categories from year-end 2016 to year-end 2017 due to changes in interest rates and market spreads during 2017. Gross unrealized losses on fixed maturity and equity securities for less than 12 months accounted for $2.6 million or 24% of the security values in a gross unrealized loss position at December 31, 2017. Gross unrealized losses on fixed maturity and equity security investments of 12 months or longer increased from $6.5 million at December 31, 2016 to $8.3 million at December 31, 2017.

Residential mortgage-backed securities, commercial mortgage-backed securities, and asset-backed securities that were rated below investment grade were 36% at December 31, 2017 and 34% at December 31, 2016 of the total mortgage-backed and asset-backed securities. This increase was primarily due to paydowns in the investment grade portion of the portfolio.

We have written down certain investments in previous periods. Fixed maturity securities written down and still owned at December 31, 2017 had a fair value of $33.2 million and net unrealized gains of $2.8 million, compared to the December 31, 2016 fair value of $47.0 million and net unrealized gains of $2.7 million. Additional information identified or further deteriorations could result in impairments in future periods.

We evaluated the current status of all investments previously written down to determine whether we believe that these investments remained credit-impaired to the extent previously recorded. Our evaluation process is similar to our impairment evaluation process. If evidence exists that we will receive the contractual cash flows from securities previously written down, the accretion of income is adjusted. We did not change our evaluation of any investments under this process during 2017 or 2016.

Investments in mortgage loans totaled $649.5 million at December 31, 2017, up from $630.9 million at December 31, 2016. The commercial mortgage loan portfolio increased $18.6 million during 2017, as new loans exceeded the regularly scheduled payments and the volume of prepaid loans. Mortgage loan principal paydowns decreased $26.3 million in 2017 compared to 2016, primarily

due to a lower dollar volume of prepaid loans. Our mortgage loans are secured by commercial real estate. These loans are stated at the outstanding principal balance, adjusted for amortization of premium and accrual of discount, less an allowance for loan losses. We believe this allowance is at a level adequate to absorb estimated credit losses and was $4.1 million at December 31, 2017 and $3.3 million at December 31, 2016. For additional information on our mortgage loan portfolio, please see Note 3.

Investments in real estate totaled $193.2 million at December 31, 2017 and $195.6 million at December 31, 2016. The decrease was largely due to the sale of an undeveloped property that resulted in a realized gain of $1.1 million before applicable income taxes.

Liquidity and Capital Resources

Liquidity

We meet liquidity requirements primarily through positive cash flows from operations. Management believes that the Company has sufficient sources of liquidity and capital resources to satisfy operational requirements and to finance expansion plans and strategic initiatives as they may occur. Primary sources of cash flow are premiums, other insurance considerations and deposits, receipts for policyholder accounts, investment sales and maturities, and investment income. In addition, we have credit facilities that are available for additional working capital needs or investment opportunities. The principal uses of cash are for the insurance operations, including the purchase of investments, payment of insurance benefits, operating expenses, policyholder dividends, withdrawals from policyholder accounts, and costs related to acquiring new business. In addition, we use cash for other purposes, including the payment of stockholder dividends and income taxes. There can be no assurance that we will continue to generate cash flows at or above current levels or that our ability to borrow under the current credit facilities will be maintained.

We perform cash flow testing and add various levels of stress testing to potential surrender and policy loan levels in order to assess current and near-term cash and liquidity needs. In the event of increased surrenders and other cash needs, we have several sources of cash flow available to meet our needs.

Net cash provided by operating activities was $14.5 million for the year ended December 31, 2017. The primary sources of cash from operating activities in 2017 were premium receipts and net investment income. The primary uses of cash from operating activities in 2017 were for the payment of policyholder benefits and operating expenses. Net cash used by investing activities was $28.4 million. The primary sources of cash were sales, maturities, calls, and principal paydowns of investments totaling $433.6 million. Offsetting these, investment purchases, including new mortgage loans and new policy loans, totaled $455.5 million. Net cash provided by financing activities was $13.8 million, primarily including $23.1 million of deposits, net of withdrawals, on policyholder account balances and $5.6 million of net transfers from separate accounts. Partially offsetting these was the payment of $10.5 million in stockholder dividends.

Capital Resources

We believe existing capital resources provide adequate support for the current level of business activities, as identified in the following table at December 31.

	2017	2016
Total assets, excluding separate accounts	$ 4,110,858	$ 4,076,157
Total stockholders' equity	737,155	685,583
Ratio of stockholders' equity to assets, excluding separate accounts	18%	17%

Stockholders' equity increased $51.6 million from year-end 2016. This increase was attributable to earnings during the year and the change in the liability for pension and OPEB. Included in the increase in earnings in 2017 was the remeasurement of deferred taxes to reflect the reduced corporate federal income tax rate of 21%. Stockholders' equity per share, or book value, equaled $76.13 at year-end 2017, an increase from $70.80 at year-end 2016.

Net unrealized gains on available for sale securities, which are included as part of accumulated other comprehensive income (loss) and as a component of stockholders' equity (net of unrealized losses on investments, related taxes, policyholder account balances, future policy benefits, DAC, VOBA, and DRL), totaled $48.8 million at December 31, 2017, a $12.7 million increase from December 31, 2016.

Our statutory equity exceeds the minimum capital deemed necessary to support our insurance business, as determined by the risk-based capital calculations and guidelines established by the NAIC. We believe these statutory limitations impose no practical restrictions on future dividend payment plans. See further discussion in Note 20 - Statutory Information and Stockholder Dividends Restriction.

In January 2018, the Board of Directors authorized the purchase of up to one million of our shares on the open market through January 2019. No shares were purchased under this authorization during 2017 or 2016.

In December 2015, we completed a reverse/forward stock-split transaction. This transaction occurred as part of a 1-for-250 reverse stock split of our common stock. We purchased approximately 906,500 shares or 9% of the outstanding shares for $47.6 million. We subsequently completed a 250-for-1 forward stock split for each one share of our common stock (including each fractional share of such class of stock in excess of one share).

On January 22, 2018, the Board of Directors declared a quarterly dividend of $0.27 per share that was paid February 7, 2018 to stockholders of record at February 1, 2018.

Minimum Rate Guarantees

Our rate guarantees for those products with minimum crediting rate provisions are identified in the following table. The guaranteed minimum crediting rate has been reduced over time on new products being sold, consistent with the declining interest rate environment. The actual interest rate credited to these products may be greater than the guaranteed rates, particularly for products having been sold more recently and within the lower guaranteed rate categories. Approximately 78% of total policyholder account balances were at the minimum guaranteed rate as of December 31, 2017 compared to 81% at December 31, 2016.

	December 31, 2017				
	Fixed Deferred Annuities	Universal Life	Variable Life and Annuities	Supplemental Contracts and Annuities Without Life Contingencies	Total
0% to 1%	$ 267,984	$ 25,611	$ 3,496	$ 7,899	$ 304,990
Greater than 1% to 3%	289,354	220,961	94,765	28,053	633,133
Greater than 3% to 4%	392,230	301,349	7,976	11,561	713,116
Greater than 4%	54,275	339,840	—	5,957	400,072
Total	$ 1,003,843	$ 887,761	$ 106,237	$ 53,470	$ 2,051,311

	December 31, 2016				
	Fixed Deferred Annuities	Universal Life	Variable Life and Annuities	Supplemental Contracts and Annuities Without Life Contingencies	Total
0% to 1%	$ 209,318	$ 13,955	$ 3,032	$ 7,973	$ 234,278
Greater than 1% to 3%	321,297	208,804	95,867	27,428	653,396
Greater than 3% to 4%	416,341	308,306	8,134	12,625	745,406
Greater than 4%	51,252	360,940	—	6,456	418,648
Total	$ 998,208	$ 892,005	$ 107,033	$ 54,482	$ 2,051,728

Fixed Deferred Annuity Contracts

Fixed deferred annuities typically involve single-payment deposits that accumulate over time through interest credited, and these contracts also typically provide the right to make additional renewal deposits. The timing and magnitude of outgoing cash flows from these contracts is dependent upon many factors, primarily due to contract owner rights to surrender or annuitize the policy value during the term of the contract and benefit options that are provided upon death. We make estimates and projections of future cash flows on fixed deferred annuities based upon the economic environment, ranges of future economic changes, and historical contract holder behavior.

The term of the contract is dependent upon the individual needs and decisions of contract owners up to and including the time of contractual maturity. The maturity of the contract is typically determined by a combination of the duration of ownership of the contract and the annuity owner's age. Deferred annuity contract owners with upcoming annuity maturities receive communication from us regarding the various maturity settlement options that are available in the contract. The communication can result in extension of the contract maturity date, surrender of the contract prior to maturity, or conversion of the contract to other contract or policy types. Conversions typically involve payment of the contract value over time and often with life contingencies.

The following table provides deferred annuity contract values within maturity date ranges. The values and date ranges provided below do not necessarily represent our expected outflow of funds from these contracts, as these cash flows may be significantly impacted by the needs and decisions of the contract owners.

	2017	% of Total	2016	% of Total
One year or less	$ 131,096	13%	$ 133,829	13%
Two years	67,697	7%	56,104	6%
Three years	55,664	5%	45,176	4%
Four years	54,772	5%	59,360	6%
Five years	55,352	6%	57,961	6%
Six years or more	639,262	64%	645,778	65%
Total	$ 1,003,843	100%	$ 998,208	100%

Fixed deferred annuity contracts typically also contain provisions for charges to be paid by contract holders if the contract is surrendered within a fixed period of time after purchase. The surrender charge typically declines on an annual basis during an initial term of ten or fewer years. The magnitude of any surrender charge applicable to a contract is believed to impact policyholder behavior and the timing of future cash flows. The following table provides the policy values for fixed deferred annuities by summary ranges of applicable surrender charges as of December 31, 2017 and 2016.

	2017	% of Total	2016	% of Total
None	$ 620,635	62%	$ 638,844	64%
Less than 5%	198,180	20%	172,734	17%
5% and greater	185,028	18%	186,630	19%
Total	$ 1,003,843	100%	$ 998,208	100%

Asset/Liability Management

Our asset/liability management programs and procedures involve the monitoring of asset and liability durations for various product lines, cash flow testing under various interest rate scenarios to evaluate the potential sensitivity of assets and liabilities to interest rate movements, and the continuous rebalancing of assets and liabilities with respect to yield, risk, and cash flow characteristics.

We believe our asset/liability management programs and procedures, along with certain product features, provide protection for us against the effects of changes in interest rates under various scenarios.

Cash flows and effective durations of the asset and liability portfolios are measured at points in time and are affected by changes in the level and term structure of interest rates, as well as changes in policyholder behavior. Further, durations are managed on an individual product level, and an aggregate portfolio basis. As a result, differences typically exist between the duration, cash flows, and yields of assets versus liabilities on an individual portfolio and aggregate basis. Our asset/liability management programs and procedures enable management to monitor the changes, which have varying correlations among certain portfolios, and to make adjustments to asset mix, liability crediting rates, and product terms so as to manage risk and profitability over time.

We aggregate similar policyholder liabilities into portfolios and then match specific investments with these liability portfolios. In 2017 and 2016, all of our portfolios had investment yields that exceeded the crediting rates on the matched liabilities. We monitor the risk to portfolio investment margins on an ongoing basis.

We perform cash flow scenario testing through models of our in force business. These models reflect specific product characteristics and include assumptions based on current and anticipated experience regarding the relationships between short-term and long-term interest rates (i.e., the slope of the yield curve), credit spreads, market liquidity, and other factors, including policyholder behavior in certain market conditions. In addition, these models include asset cash flow projections, reflecting interest payments, sinking fund payments, scheduled principal payments, and optional bond calls and prepayments.

The risk exists that our asset or liability portfolio performance may differ from forecasted results as a result of unforeseen economic circumstances, estimates or assumptions that prove incorrect, unanticipated policyholder behavior, or other factors. The result of such deviation of actual versus expected performance could include excess or insufficient liquidity in future periods. Excess liquidity, in turn, could result in reduced profitability on one or more product lines. Insufficient liquidity could result in the need

to generate liquidity through borrowing, asset sales, or other means. We believe that our asset/liability management programs will provide sufficient liquidity to enable us to fulfill our obligation to pay benefits under our various insurance and deposit contracts. On a historical basis, we have not needed to liquidate assets to ensure sufficient cash flows. We maintain borrowing lines on a secured and unsecured basis to provide additional liquidity, if needed.

Risk Factors

The operating results of life insurance companies have historically been subject to significant fluctuations. The factors which could affect our future results include, but are not limited to, general economic conditions and the known trends and uncertainties which are discussed more fully below.

Strategic and Operational Risks:

We operate in a mature and highly competitive industry, which could limit our ability to grow sales or maintain our position in the industry and negatively affect profitability.

Life insurance is a mature and highly competitive industry. We encounter significant competition in all lines of business from other insurance companies, many of which may have greater financial resources, a greater market share, a broader range of products, lower product prices, better name recognition, greater actual or perceived financial strength, higher claims-paying ratings, the ability to assume a greater level of risk, lower operating or financing costs, or lower profitability expectations.

In recent years, there has been substantial consolidation and convergence among companies in the financial services industry, resulting in increased competition from large, well-capitalized financial services firms. Furthermore, many of these larger competitors may have lower operating costs and an ability to absorb greater risk while maintaining their financial strength ratings, thereby allowing them to price their products more competitively.

Changes in demographics, particularly the aging of the population, and the decline in the number of agents in the industry, may affect the sales of life insurance products. Also, as technology evolves, customers and agents may be able to compare products of any particular company with any other, which could lead to increased competition as well as changes in agent or customer behavior, including persistency, that differs from past behavior.

We may be unable to attract and retain agencies and agents.

We sell insurance and annuity products through independent agents and agencies. These agencies and agents are not captive and may sell products of our competitors. Sales and our financial results could be adversely affected if we are unsuccessful in attracting agencies and agents. Our ability to retain agents and agencies is dependent upon a number of factors, including: our ability to maintain a competitive compensation system while also offering products with competitive features and benefits for policyholders; our ability to maintain a level of service and assistance that effectively supports the needs of agents and agencies; and our ability to approve and monitor sales and business practices of agents and agencies that are consistent with regulatory requirements and our expectations.

Our results may be negatively affected should actual experience differ from management's assumptions and estimates.

We make certain assumptions regarding mortality, persistency, expenses, interest rates, tax liability, business mix, policyholder behavior, and other factors appropriate for the type of business results we expect to experience in future periods. These assumptions are also used to estimate the amounts of DAC, VOBA, DRL, policy reserves and accruals, future earnings, and various components of our financial statements. These assumptions are used in the operations of our business in making decisions that are crucial to our success, including the pricing of products and expense structures relating to products. Our actual experience and changes in estimates are reflected in our financial statements. Our actual experience may vary from period to period and from established assumptions, potentially resulting in variability in the financial statements.

We establish and carry a reserve liability based on current estimates of how much will be needed to pay for future benefits and claims. The assumptions and estimates used in connection with establishing and carrying reserves are inherently uncertain and in some cases are mandated by regulators, irrespective of a company's actual experience. If actual experience is significantly different from assumptions or estimates or if regulators decide to increase or change regulations, current reserves may prove to be inadequate in relation to estimated future benefits and claims. As a result, a charge to earnings would be incurred in the quarter in which we increase reserves.

The calculations we use to estimate various components of our financial statements are complex and involve analyzing and interpreting large quantities of data. We employ various techniques for such calculations and, from time to time, will develop and implement more sophisticated systems and procedures to facilitate calculations and improve estimates. Accordingly, our financial results may be affected, positively or negatively, by actual results differing from assumptions, by changes in estimates, and by changes resulting from implementing new administrative systems and procedures.

Risk management policies and procedures may leave us exposed to unidentified or unanticipated risk, which could negatively affect business or result in losses.

We have devoted significant resources to develop risk management policies and procedures and will continue to do so in the future. However, the policies and procedures that we use to identify, monitor, and manage risks may not be fully effective. Many of the methods of managing risk and exposure are based upon the use of observed historical policyholder and market behavior or statistics based on historical models. As a result, these methods may not effectively or fully identify or evaluate the magnitude of existing or future exposure, which could be significantly greater than the historical measures or our evaluation indicate. Other risk management methods depend upon the evaluation of information regarding markets, agents, clients, catastrophe occurrence, or other matters that are publicly available or otherwise accessible. This information may not always be accurate, complete, up-to-date, or properly evaluated. Management of operational, legal, and regulatory risks requires, among other things, policies and procedures to record properly and verify a large number of transactions and events, and these policies and procedures may not be fully effective. Additional risks and uncertainties not currently known or that we currently deem to be immaterial may adversely affect our business and/or our financial statements.

A rating downgrade could adversely affect our ability to compete and increase the number or value of policies surrendered.

Our financial strength rating, which is intended to measure our ability to meet policyholder obligations, may be an important consideration affecting public confidence in some of our products and, as a result, our competitiveness. A downgrade in our rating could adversely affect our ability to sell products, retain existing business, and compete for attractive acquisition opportunities. Rating organizations assign ratings based upon several factors. While most of the factors relate to the rated company, some of the factors relate to the views of the rating organization, general economic conditions, and circumstances outside the rated company's control. We cannot predict what actions rating organizations may take or what actions we may be required to take in response to the actions of the rating organizations.

Reinsurance Risks:

Our reinsurers could fail to meet assumed obligations or be subject to adverse developments that could impact us.

We follow the insurance practice of reinsuring a portion of the risks under the policies we issue, known as ceding. We cede significant amounts of insurance to other insurance companies through reinsurance. This reinsurance makes the assuming reinsurer liable to us for the reinsured portion of the risk. However, reinsurance does not discharge us from our primary obligation to pay policyholders for losses insured under the policies that are issued. Therefore, we are subject to the credit risk of our reinsurers. The failure of one or more of our reinsurers could negatively impact our financial position or financial statements.

Our ability to compete is dependent on the availability of reinsurance, cost of reinsurance, or other substitute capital market solutions.

The premium rates we charge are based, in part, on the assumption that reinsurance will be available at a certain cost. Under certain reinsurance agreements, the reinsurer may increase the rate it charges us for the reinsurance. Therefore, if the cost of reinsurance were to increase for existing business, if reinsurance were to become unavailable for new business, or if alternatives to reinsurance were not available, we may be exposed to reduced profitability and cash flow strain, or may not be able to sell or price new business at competitive rates.

Recently, access to reinsurance has become more costly for us, as well as the insurance industry in general. In recent years, the number of life reinsurers has decreased as the reinsurance industry has consolidated. The decreased number of participants in the life reinsurance market results in increased concentration risk for insurers. If the reinsurance market further contracts, our ability to continue to offer our products on terms favorable to us could be adversely impacted.

Investment Risks:

Our investments are subject to market and credit risks.

We hold a diversified portfolio of investments that primarily includes fixed maturity securities, equity securities, mortgage loans, and real estate. Each of these investments is subject, in varying degree, to market risks that can affect their return and their fair value.

Our invested assets, primarily including fixed maturity securities, are subject to customary risks of credit defaults and changes in fair value. The value of our mortgage loan and real estate portfolios also depend on the financial condition of the borrowers and tenants occupying the properties which we have financed. Factors that may affect the overall default rate on and fair value of our invested assets include interest rate levels and changes, availability and cost of liquidity, financial market performance, and general economic conditions, as well as particular circumstances affecting the businesses of individual borrowers and tenants.

Our investments are exposed to varying degrees of credit risk. Credit risk is the risk that the value of the investment may decline due to deterioration in the financial strength of the issuer and that the timely or ultimate payment of principal or interest might not occur. A default by an issuer usually involves some loss of principal to the investor. Losses can be mitigated by timely sales of affected securities or by active involvement in a restructuring process. However, there can be no assurance that the efforts of an investor will lead to favorable outcomes in a bankruptcy or restructuring.

We attempt to mitigate credit risk by diversifying the investment portfolio across a broad range of issuers, investment sectors and security types, and by limiting the amount invested in any particular entity. We also invest in securities collateralized or supported by physical assets, guarantees by insurers or other providers of financial strength, and other sources of secondary or contingent payment. These securities can improve the likelihood of payment according to contractual terms and increase recovery amounts in the case of issuer default, bankruptcy, or restructuring.

Interest rate fluctuations could negatively affect our spread income or otherwise impact our business.

Interest rate fluctuations or sustained low interest rate environments could negatively affect earnings because the profitability of certain products depends in part on interest rate spreads. These products include fixed deferred annuities, single premium immediate annuities, interest-sensitive whole life, universal life, and the fixed portion of variable universal life insurance and variable annuity business. In addition, we offer riders, including guaranteed minimum withdrawal benefits and guaranteed minimum death benefits. Changes in interest rates or sustained low interest rate environments may reduce both the profitability and the return on invested capital.

Some of our products, principally fixed annuities, interest-sensitive whole life, universal life, and the fixed portion of variable universal life insurance and variable annuity business, have interest rate guarantees that expose us to the risk that changes in interest rates will reduce the spread, or the difference between the amounts we are required to credit to policyholder contracts and the amounts earned on general account investments. Because many of our policies have guaranteed minimum interest or crediting rates, spreads could decrease and potentially become negative. Declines in spread or instances where the returns on the general account investments are not sufficient to support the interest rate guarantees on these products could have a material adverse effect on our financial statements. In addition, in periods of increasing interest rates, we may not be able to replace the assets in the general account with higher yielding assets needed to fund the higher crediting rates that may be necessary to keep interest sensitive products competitive. Therefore, we may have to accept a lower spread and profitability or face a decline in sales, loss of existing contracts from non-renewed maturities, early withdrawals, or surrenders. In periods of declining interest rates, we may have to reinvest the cash received from interest or return of principal on investments in lower yielding instruments then available. Moreover, issuers of fixed income investment securities and borrowers related to our commercial mortgage investments may prepay these obligations in order to borrow at lower market rates, which may increase our risk to have to reinvest at lower rates. Increases in interest rates may cause increased surrenders of insurance products. In periods of increasing interest rates, policy loans and surrenders and withdrawals of life insurance policies and annuity contracts may increase, as policyholders seek to buy products with higher returns. These outflows may require investment assets to be sold at a time when the prices of those assets are lower because of the increase in market interest rates, which may result in realized investment losses. Further, higher interest rates may result in significant unrealized losses on investments. These net unrealized losses could have a negative effect on stockholders' equity. This could negatively impact the ability to pay policyholder and stockholder dividends. In addition, higher interest rates may reduce the fair value of policyholders' separate account investments, which may reduce our revenues from asset-based management fees.

While we develop and maintain asset/liability management programs and procedures designed to identify and mitigate the effect on spread income in rising or falling interest rate environments, no assurance can be given that changes in interest rates will not affect such spreads or that our evaluation of fluctuations will be correct or allow for timely modifications. Additionally, our asset/liability management programs incorporate assumptions about the relationship between short-term and long-term interest rates (i.e., the slope of the yield curve) and relationships between risk-adjusted and risk-free interest rates, market liquidity, and policyholder behavior in periods of changing interest rates and other factors. The effectiveness of our asset/liability management programs and procedures may be negatively affected whenever actual results differ from these assumptions.

Prolonged periods of low interest rates can affect policyholder behavior and negatively impact earnings.

As interest rates decline, policyholders may become more likely to extend the retention or duration of fixed-rate products previously purchased and may seek alternatives to fixed-rate products for new purchases. Policyholders may add premiums or deposits to existing policies or contracts with terms upon which we are no longer offering on new products. Many of the products sold in earlier periods may have minimum guaranteed interest crediting rates or other features that are greater than those being offered in the current low interest rate environment. Additionally, cash flows from existing investments, including interest and principal payments, may be reinvested at lower interest rates relative to prior periods. As a result, a prolonged low interest rate environment can result in significant changes to cash flows, lower investment income, compressed product spreads, reduced earnings, and increased surplus strain. In addition, we may change our risk profiles in regards to selecting investment opportunities to reduce the impact on earnings.

The change from a low interest rate environment to an environment of increasing interest rates can affect policyholder behavior and negatively impact earnings.

The change from a period of low interest rates to a period of significantly higher and increasing interest rates may cause policyholders to surrender policies or to make early withdrawals in order to maximize their returns. Accordingly, we may become more susceptible to increased surrenders and withdrawals on policies, as surrender charges and other features that help protect us from increased or unexpected policyholder withdrawals or lapses are ineffective. Increases in policyholder surrenders, withdrawals, or lapses could negatively affect our operating results and liquidity.

Our valuation of fixed maturity and equity securities include estimations and assumptions and could result in changes to investment valuations that may have a material adverse effect on our financial statements.

Fixed maturity securities, equity securities, and short-term investments are reported at fair value in the Consolidated Balance Sheets and represent the majority of total cash and invested assets. During periods of market disruption, including periods of significantly rising or high interest rates, rapidly widening credit spreads or illiquidity, it may be difficult to value certain securities if trading becomes less frequent and/or market data becomes less observable. There may be certain asset classes that were previously acquired and valued in active markets with significant observable data that will be valued in illiquid markets with little observable data. As such, valuations may include inputs and assumptions that are less observable or require greater estimation as well as valuation methods which are more complex or require increased estimation, thereby resulting in values which may have greater variance from the value at which the investments may or could be ultimately sold. Further, rapidly changing credit and equity market conditions could materially impact the valuation of securities as reported in the consolidated financial statements, and the period to period changes in value could vary significantly. Decreases in value could have a material adverse effect on our financial statements.

Equity market volatility could negatively impact our profitability.

We are exposed to equity market volatility in the following ways:

- We have exposure to equity price risk through investments. However, this exposure is limited due to the relatively small equity portfolio held during the periods presented.
- We earn investment management fees and mortality and expense fee income based upon the value of assets held in our separate accounts from both direct and reinsurance arrangements. Revenues from these sources fluctuate with changes in the fair value of the separate accounts.
- Volatility in equity markets may discourage customers from purchasing variable universal life and annuity products that have returns linked to the performance of the equity markets. This volatility may also result in existing customers withdrawing cash values or reducing investments in those products.
- We have equity price risk to the extent that it may affect the liability recognized under guaranteed minimum death benefits and guaranteed minimum withdrawal benefit provisions of the variable contracts. Periods of significant and sustained downturns in equity markets, increased equity volatility, or reduced interest rates could result in an increase in the valuation of the future policy benefit or policyholder account balance liabilities associated with such products, which ultimately could result in a reduction to net income.
- The amortization of DAC relating to variable products can fluctuate with changes in the performance of the underlying separate accounts due to the impact on estimated gross profits.
- The Company has a defined benefit pension plan that is frozen. Declining financial markets could have several impacts on this plan including but not limited to: a decrease in the plan's investment values; additional pension expense; a reduction in comprehensive income; and an increase in contributions. In addition, the funding requirements of our pension plan are sensitive to interest rate changes. Should interest rates decrease, plan liabilities may increase. Should interest rates increase, plan assets may decrease.

The determination of the amount of realized and unrealized impairments and allowances established on our investments is highly subjective and could materially impact our financial position or financial statements.

The determination of the amount of impairments and allowances varies by investment type and is based upon our 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. There can be no assurance that the assumptions, methodologies, and judgments employed in these evaluations and assessments will be accurate or sufficient in later periods. As a result, additional impairments may need to be realized or allowances provided in future periods. Further, historical trends may not be indicative of future impairments or allowances.

Additionally, we consider a wide range of factors about security issuers and we use our best judgment in evaluating the cause of the decline in the fair value of the security and in assessing the prospects for recovery. Inherent in management's evaluation of the security are assumptions and estimates about the operations of the issuer, its future earnings potential, and the ability and timeliness of the security's recovery in fair value.

We could be forced to sell investments at a loss to meet policyholder withdrawals.

Many of our products allow policy and contract holders to withdraw their funds under defined circumstances. We manage liabilities and attempt to align the investment portfolio so as to provide and maintain sufficient liquidity to support anticipated withdrawal demands, contract benefits, and maturities. While we own a significant amount of liquid assets, a certain portion of our investment assets are relatively illiquid. If we experience unanticipated withdrawal or surrender activity, we could exhaust other sources of liquidity and be forced to liquidate assets, possibly on unfavorable terms. If we are forced to dispose of assets on unfavorable terms, it could have an adverse effect on our financial statements and financial condition.

Regulatory Risks:

Insurance companies are highly regulated and are subject to numerous legal restrictions and regulations.

We are subject to government regulation in each of the states in which we conduct business. Such regulation is vested in state agencies having broad administrative and, in some instances, discretionary power dealing with many aspects of our business. This may include, among other things, premium rates and increases thereto, reserve requirements, marketing practices, advertising, privacy, policy forms, reinsurance reserve requirements, acquisitions, mergers, and capital adequacy. Government regulation of insurers is concerned primarily with the protection of policyholders and other customers rather than shareholders. Interpretations of regulations by regulators may change, and statutes, regulations, and interpretations may be applied with retroactive impact, particularly in areas such as accounting or reserve requirements.

We cannot predict whether or in what manner regulatory reforms will be enacted and, if so, whether the enacted reforms will positively or negatively affect the Company, or whether any effects will be material. The NAIC generally formulates and promulgates statutory-based insurance regulations. However, each state is independent and must separately enact these financial regulations and guidelines. As such, insurers follow the interpretations and legal approvals of their respective states of domicile.

Other types of regulation that could affect us include insurance company investment laws and regulations, state statutory accounting practices, state escheatment practices, anti-trust laws, minimum solvency requirements, state securities laws, federal privacy laws, insurable interest laws, federal money laundering laws, anti-terrorism laws, and federal income tax regulations. Further, because we own and operate real property, state, federal, and local environmental laws could affect us. We cannot predict what form any future changes in these or other areas of regulation affecting the insurance industry might take or what effect, if any, such proposals might have on us if enacted into law.

We are also subject to various government regulations at the federal level. As a result of economic and market conditions in recent years, the federal government has become increasingly more active in issuing and enforcing regulations. The implementation of these legislative or regulatory requirements may make it more expensive for us to conduct business, may have a material adverse effect on the overall business climate, and could materially affect the profitability of the results of operations and financial condition of financial institutions. We are uncertain as to all of the impacts that new legislation will have and cannot provide assurance that it will not adversely affect our financial statements.

New accounting rules or changes to existing accounting rules could negatively impact our financial results.

We are required to comply with GAAP, as promulgated by the FASB. GAAP is subject to constant review and change in an effort to address emerging accounting issues and develop interpretative accounting guidance on a continual basis. The implementation of new accounting guidance could result in substantial costs and or changes in assumptions or estimates, which could negatively impact our financial statements. Accordingly, we can give no assurance that future changes to GAAP will not have a negative impact on us.

In addition, we are required to comply with statutory accounting principles (SAP). SAP and various components of SAP, such as statutory actuarial reserving methodology, are subject to constant review by the NAIC, NAIC task forces and committees, as well as state insurance departments to address emerging issues and otherwise improve or modify financial reporting. Various proposals are typically pending before committees and task forces of the NAIC. If enacted, some of these may negatively affect us. The NAIC also typically works to reform state regulation in various areas, including reforms relating to life insurance reserves and the accounting for such reserves. We cannot predict whether or in what manner reforms will be enacted and, if so, whether the enacted reforms will positively or negatively affect us. Although states generally defer to the interpretation of the insurance department of the state of domicile with regards to regulations and guidelines, neither the action of the domiciliary state nor action of the NAIC is binding on any other state. Accordingly, a state could choose to follow a different interpretation. We can give no assurance that future changes to SAP or components of SAP will not have a negative impact on us.

Catastrophic Event Risk:

We are exposed to the risks of climate change, natural disasters, pandemics, terrorism, or other acts that could adversely affect our operations.

While we have implemented risk management and contingency plans and taken preventive measures and other precautions, no predictions of specific scenarios can be made nor can assurance be given that there are not scenarios that could have an adverse effect on us. Climate change, a natural disaster, a pandemic, or an outbreak of an easily communicable disease could adversely affect the mortality or morbidity experience of us or our reinsurers. A pandemic could also have an adverse effect on lapses and surrenders of existing policies, as well as sales of new policies. In addition, a pandemic could result in large areas being subject to quarantine, with the result that economic activity slows or ceases. This could adversely affect the marketing or administration of our business. The possible macroeconomic effects of climate change, natural disasters, pandemics, or terrorism could also adversely affect our financial statements.

Information Technology Risk:

The failure of our cybersecurity controls, other information system security controls, or the controls of our third-party providers may result in the unauthorized disclosure of sensitive or confidential corporate or customer information. Such failures could damage our reputation and hinder our ability to conduct business. Further, our contingency planning and disaster recovery programs may be insufficient to address unanticipated events. In addition, our reputation could be damaged by inaccurate presentations made in social media.

As part of the normal course of business, we use computer systems to collect, process, and retain sensitive and confidential corporate and customer information. In addition, we use third-party vendors and cloud technology for storage, processing, and data support of certain activities. We rely on commercial technologies and third parties to maintain the security of that information. Our information systems are subject to computer viruses, malicious software code, and other unauthorized computer-related actions. Preventive actions taken by the Company to reduce the risk of cyber incidents and to protect our information may be insufficient to prevent cyber attacks or other security breaches. Any security breach involving the misappropriation, loss, or other unauthorized disclosure of confidential information could severely damage our reputation, expose us to an increase in the risk of litigation, disrupt our operations, cause incurrence of significant technical, legal, and operating expenses, or otherwise harm our business.

We are highly dependent on our ability to access our computer systems to perform the necessary business functions, such as processing premium payments, processing claim payments, administration of policy data, providing customer support, managing our investment portfolio, and conducting financial reporting and analysis. Events such as natural disasters, pandemics, blackouts, computer viruses, terrorist attacks, or cyber attacks could result in system failures or outages that may cause our computer systems to become inaccessible to our employees and customers for an extended period of time. Our disaster recovery program may be insufficient to deal with such an unanticipated event. This could result in an adverse impact to our ability to conduct business functions in a timely manner and could result in a failure to maintain the security and confidentiality of sensitive data, including personal information of customers. This could also result in damage to our ability to conduct business, damage to our reputation, result in substantial remediation costs, and potentially subject us to regulatory sanctions, legal claims, or other unidentified consequences.

While we have limited social media content, we recognize that social media outlets are independent of us and our security measures. Inaccurate presentations based upon incorrect information or assumptions could be distributed via social media outlets and could harm us and our reputation.