

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2020

OR

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

For the transition period from _____ to _____

Commission File Number : 001-31911

American Equity Investment Life Holding Company

(Exact name of registrant as specified in its charter)

Iowa

(State or other jurisdiction of incorporation or organization)

42-1447959

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

**6000 Westown Parkway
West Des Moines, Iowa 50266**

(Address of principal executive offices, including zip code)

(515) 221-0002

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$1	AEL	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 5.95% Fixed-Rate Reset Non-Cumulative Preferred Stock, Series A	AELPRA	New York Stock Exchange

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

APPLICABLE TO CORPORATE ISSUERS:

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

As of May 1, 2020, there were 91,525,952 shares of the registrant's common stock, \$1 par value, outstanding.

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PART I - FINANCIAL INFORMATION
Item 1. Financial Statements
AMERICAN EQUITY INVESTMENT LIFE HOLDING COMPANY AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Dollars in thousands, except share and per share data)

	March 31, 2020	December 31, 2019
	(Unaudited)	
Assets		
Investments:		
Fixed maturity securities, available for sale, at fair value (amortized cost of \$47,254,063 as of 2020 and \$48,238,946 as of 2019; allowance for credit losses of \$28,332 as of 2020)	\$ 47,704,867	\$ 51,580,490
Mortgage loans on real estate (net of allowance for credit losses of \$19,776 as of 2020 and \$9,179 as of 2019)	3,668,625	3,448,793
Derivative instruments	207,265	1,355,989
Other investments	497,598	492,301
Total investments	52,078,355	56,877,573
Cash and cash equivalents	1,833,099	2,293,392
Coinsurance deposits (net of allowance for credit losses of \$4,559 as of 2020 and \$0 as of 2019)	4,933,992	5,115,013
Accrued investment income	472,667	472,826
Deferred policy acquisition costs	3,615,101	2,923,454
Deferred sales inducements	2,414,533	1,966,723
Deferred income taxes	90,384	—
Income taxes recoverable	46,324	—
Other assets	65,101	47,571
Total assets	\$ 65,549,556	\$ 69,696,552
Liabilities and Stockholders' Equity		
Liabilities:		
Policy benefit reserves	\$ 60,619,047	\$ 61,893,945
Other policy funds and contract claims	248,178	256,105
Notes payable	495,251	495,116
Subordinated debentures	77,893	157,265
Amounts due under repurchase agreements	186,105	—
Deferred income taxes	—	177,897
Income taxes payable	—	429
Other liabilities	400,325	2,145,676
Total liabilities	62,026,799	65,126,433
Stockholders' equity:		
Preferred stock; par value \$1 per share; \$400,000 aggregate liquidation preference; 2,000,000 shares authorized; issued and outstanding: 2020 - 16,000 shares; 2019 - 16,000 shares	16	16
Common stock; par value \$1 per share; 200,000,000 shares authorized; issued and outstanding: 2020 - 91,497,841 shares (excluding 1,207,201 treasury shares); 2019 - 91,107,555 shares (excluding 1,344,193 treasury shares)	91,498	91,107
Additional paid-in capital	1,215,464	1,212,311
Accumulated other comprehensive income	219,974	1,497,921
Retained earnings	1,995,805	1,768,764
Total stockholders' equity	3,522,757	4,570,119
Total liabilities and stockholders' equity	\$ 65,549,556	\$ 69,696,552

See accompanying notes to unaudited consolidated financial statements.

AMERICAN EQUITY INVESTMENT LIFE HOLDING COMPANY AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

**(Dollars in thousands, except per share data)
(Unaudited)**

	Three Months Ended March 31,	
	2020	2019
Revenues:		
Premiums and other considerations	\$ 7,664	\$ 5,410
Annuity product charges	59,549	52,966
Net investment income	573,318	558,438
Change in fair value of derivatives	(941,874)	384,469
Net realized gains (losses) on investments, excluding credit losses on fixed maturity securities, available for sale	11,035	(563)
Credit losses on fixed maturity securities, available for sale	(31,371)	—
Loss on extinguishment of debt	(2,024)	—
Total revenues	<u>(323,703)</u>	<u>1,000,720</u>
Benefits and expenses:		
Insurance policy benefits and change in future policy benefits	10,072	9,299
Interest sensitive and index product benefits	400,219	136,674
Amortization of deferred sales inducements	73,591	33,309
Change in fair value of embedded derivatives	(1,250,061)	766,323
Interest expense on notes payable	6,385	6,379
Interest expense on subordinated debentures	1,588	4,088
Amortization of deferred policy acquisition costs	120,702	45,132
Other operating costs and expenses	<u>43,626</u>	<u>38,979</u>
Total benefits and expenses	<u>(593,878)</u>	<u>1,040,183</u>
Income (loss) before income taxes	270,175	(39,463)
Income tax expense (benefit)	<u>27,228</u>	<u>(9,453)</u>
Net income (loss)	242,947	(30,010)
Less: Preferred stock dividends	6,611	—
Net income (loss) available to common stockholders	<u><u>\$ 236,336</u></u>	<u><u>\$ (30,010)</u></u>
Earnings (loss) per common share	\$ 2.58	\$ (0.33)
Earnings (loss) per common share - assuming dilution	\$ 2.57	\$ (0.33)
Weighted average common shares outstanding (in thousands):		
Earnings (loss) per common share	91,644	90,883
Earnings (loss) per common share - assuming dilution	92,021	91,744

See accompanying notes to unaudited consolidated financial statements.

AMERICAN EQUITY INVESTMENT LIFE HOLDING COMPANY AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

**(Dollars in thousands)
(Unaudited)**

	Three Months Ended March 31,	
	2020	2019
Net income (loss)	\$ 242,947	\$ (30,010)
Other comprehensive income (loss):		
Change in net unrealized investment gains/losses (1)	(1,625,075)	716,913
Reclassification of unrealized investment gains/losses to net income (loss) (1)	7,420	(294)
Other comprehensive income (loss) before income tax	(1,617,655)	716,619
Income tax effect related to other comprehensive income (loss)	339,708	(150,490)
Other comprehensive income (loss)	(1,277,947)	566,129
Comprehensive income (loss)	\$ (1,035,000)	\$ 536,119

(1) Net of related adjustments to amortization of deferred sales inducements and deferred policy acquisition costs.

See accompanying notes to unaudited consolidated financial statements.

AMERICAN EQUITY INVESTMENT LIFE HOLDING COMPANY AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

(Dollars in thousands, except share data)
(Unaudited)

	Preferred Stock	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income	Retained Earnings	Total Stockholders' Equity
For the three months ended March 31, 2020						
Balance at December 31, 2019	\$ 16	\$ 91,107	\$ 1,212,311	\$ 1,497,921	\$ 1,768,764	\$ 4,570,119
Net income for period	—	—	—	—	242,947	242,947
Other comprehensive loss	—	—	—	(1,277,947)	—	(1,277,947)
Share-based compensation	—	—	2,289	—	—	2,289
Issuance of 390,286 shares of common stock under compensation plans	—	391	864	—	—	1,255
Cumulative effect of change in accounting principal	—	—	—	—	(9,295)	(9,295)
Dividends on preferred stock	—	—	—	—	(6,611)	(6,611)
Balance at March 31, 2020	<u>\$ 16</u>	<u>\$ 91,498</u>	<u>\$ 1,215,464</u>	<u>\$ 219,974</u>	<u>\$ 1,995,805</u>	<u>\$ 3,522,757</u>
	Preferred Stock	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
For the three months ended March 31, 2019						
Balance at December 31, 2018	\$ —	\$ 90,369	\$ 811,186	\$ (52,432)	\$ 1,549,978	\$ 2,399,101
Net loss for period	—	—	—	—	(30,010)	(30,010)
Other comprehensive income	—	—	—	566,129	—	566,129
Share-based compensation	—	—	4,205	—	—	4,205
Issuance of 414,894 shares of common stock under compensation plans	—	415	(303)	—	—	112
Balance at March 31, 2019	<u>\$ —</u>	<u>\$ 90,784</u>	<u>\$ 815,088</u>	<u>\$ 513,697</u>	<u>\$ 1,519,968</u>	<u>\$ 2,939,537</u>

See accompanying notes to unaudited consolidated financial statements.

AMERICAN EQUITY INVESTMENT LIFE HOLDING COMPANY AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

**(Dollars in thousands)
(Unaudited)**

	Three Months Ended March 31,	
	2020	2019
Operating activities		
Net income (loss)	\$ 242,947	\$ (30,010)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Interest sensitive and index product benefits	400,219	136,674
Amortization of deferred sales inducements	73,591	33,309
Annuity product charges	(59,549)	(52,966)
Change in fair value of embedded derivatives	(1,250,061)	766,323
Change in traditional life and accident and health insurance reserves	(38)	(425)
Policy acquisition costs deferred	(64,444)	(108,420)
Amortization of deferred policy acquisition costs	120,702	45,132
Provision for depreciation and other amortization	1,082	949
Amortization of discounts and premiums on investments	9,802	4,485
Realized gains (losses) on investments and net credit losses recognized in operations	20,336	563
Change in fair value of derivatives	941,874	(384,381)
Deferred income taxes	71,427	(11,309)
Loss on extinguishment of debt	2,024	—
Share-based compensation	2,289	4,205
Change in accrued investment income	159	(28,735)
Change in income taxes recoverable/payable	(46,753)	1,856
Change in other assets	2,033	(5,001)
Change in other policy funds and contract claims	(9,488)	(6,059)
Change in collateral held for derivatives	(1,106,464)	424,890
Change in collateral held for securities lending	(489,047)	321,009
Change in other liabilities	(27,216)	1,912
Other	(125)	(2,009)
Net cash provided by (used in) operating activities	(1,164,700)	1,111,992
Investing activities		
Sales, maturities, or repayments of investments:		
Fixed maturity securities, available for sale	1,916,960	286,855
Mortgage loans on real estate	83,584	57,599
Derivative instruments	320,953	55,500
Other investments	2,980	1,062
Acquisitions of investments:		
Fixed maturity securities, available for sale	(956,095)	(960,575)
Mortgage loans on real estate	(315,091)	(165,450)
Derivative instruments	(181,640)	(194,364)
Other investments	(5,249)	(5,021)
Purchases of property, furniture and equipment	(10,110)	(720)
Net cash provided by (used in) investing activities	856,292	(925,114)

AMERICAN EQUITY INVESTMENT LIFE HOLDING COMPANY AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

**(Dollars in thousands)
(Unaudited)**

	Three Months Ended March 31,	
	2020	2019
Financing activities		
Receipts credited to annuity policyholder account balances	\$ 699,455	\$ 1,234,429
Coinurance deposits	114,531	37,802
Return of annuity policyholder account balances	(1,025,021)	(817,739)
Repayment of subordinated debentures	(81,450)	—
Net proceeds from amounts due under repurchase agreements	186,105	134,033
Proceeds from issuance of common stock, net	1,255	112
Change in checks in excess of cash balance	(40,149)	(4,021)
Preferred stock dividends	(6,611)	—
Net cash provided by (used in) financing activities	(151,885)	584,616
Increase (decrease) in cash and cash equivalents	(460,293)	771,494
Cash and cash equivalents at beginning of period	2,293,392	344,396
Cash and cash equivalents at end of period	<u>\$ 1,833,099</u>	<u>\$ 1,115,890</u>
Supplemental disclosures of cash flow information		
Cash paid during period for:		
Interest expense	\$ 2,523	\$ 5,792
Income taxes	11	—
Non-cash operating activity:		
Deferral of sales inducements	24,552	45,621

See accompanying notes to unaudited consolidated financial statements.

AMERICAN EQUITY INVESTMENT LIFE HOLDING COMPANY AND SUBSIDIARIES**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

March 31, 2020
(Unaudited)

1. Significant Accounting Policies**Consolidation and Basis of Presentation**

The accompanying consolidated financial statements of American Equity Investment Life Holding Company ("we", "us", "our" or the "Company") have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all the information and notes required by GAAP for complete financial statements. The consolidated financial statements reflect all adjustments, consisting only of normal recurring items, which are necessary to present fairly our financial position and results of operations on a basis consistent with the prior audited consolidated financial statements. Operating results for the three month period ended March 31, 2020 are not necessarily indicative of the results that may be expected for the year ended December 31, 2020. All significant intercompany accounts and transactions have been eliminated. The preparation of financial statements requires the use of management estimates. For further information related to a description of areas of judgment and estimates and other information necessary to understand our financial position and results of operations, refer to the audited consolidated financial statements and notes included in our Annual Report on Form 10-K for the year ended December 31, 2019.

Adopted Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board ("FASB") issued an accounting standards update ("ASU") that significantly changed the impairment model for most financial assets that are measured at amortized cost and certain other instruments from an incurred loss model to an expected loss model that requires these assets be presented at the net amount expected to be collected. In addition, credit losses on available for sale debt securities will be recorded through an allowance account subsequent to the adoption of this ASU. We adopted this ASU on January 1, 2020. The adoption of this ASU resulted in an increase in our mortgage loan allowance for credit losses of \$8.6 million and the recognition of an allowance for credit losses on our reinsurance recoverable/coinsurance deposits balances of \$3.2 million on the date of adoption. Retained earnings was decreased by \$9.3 million, which reflects the net of tax impact of the increase in the mortgage loan allowance for credit losses and the recognition of an allowance for credit losses on our reinsurance recoverable/coinsurance deposits balances on the date of adoption.

New Accounting Pronouncements

In August 2018, the FASB issued an ASU that revises certain aspects of the measurement models and disclosure requirements for long duration insurance and investment contracts. The FASB's objective in issuing this ASU is to improve, simplify, and enhance the accounting for long-duration contracts. The revisions include updating cash flow assumptions in the calculation of the liability for traditional life products, introducing the term 'market risk benefit' ("MRB") and requiring all contract features meeting the definition of an MRB to be measured at fair value, simplifying the method used to amortize deferred policy acquisition costs and deferred sales inducements to a constant basis over the expected term of the related contracts rather than based on actual and estimated gross profits and enhancing disclosure requirements. While this ASU is effective for us on January 1, 2022, the transition date (the remeasurement date) is January 1, 2020. Early adoption of this ASU is permitted. We are in the process of evaluating the impact this guidance will have on our consolidated financial statements.

2. Fair Values of Financial Instruments

The following sets forth a comparison of the carrying amounts and fair values of our financial instruments:

	March 31, 2020		December 31, 2019	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
(Dollars in thousands)				
Assets				
Fixed maturity securities, available for sale	\$ 47,704,867	\$ 47,704,867	\$ 51,580,490	\$ 51,580,490
Mortgage loans on real estate	3,668,625	3,727,294	3,448,793	3,536,446
Derivative instruments	207,265	207,265	1,355,989	1,355,989
Other investments	497,598	497,598	492,301	492,301
Cash and cash equivalents	1,833,099	1,833,099	2,293,392	2,293,392
Coinsurance deposits	4,933,992	4,577,710	5,115,013	4,635,926
Interest rate caps	—	—	6	6
Liabilities				
Policy benefit reserves	60,266,132	51,934,397	61,540,992	51,800,247
Single premium immediate annuity (SPIA) benefit reserves	247,886	255,848	255,698	263,773
Notes payable	495,251	483,405	495,116	541,520
Subordinated debentures	77,893	70,602	157,265	168,357
Amounts due under repurchase agreements	186,105	186,105	—	—

Fair value is 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. The objective of a fair value measurement is to determine that price for each financial instrument at each measurement date. We meet this objective using various methods of valuation that include market, income and cost approaches.

We categorize our financial instruments into three levels of fair value hierarchy based on the priority of inputs used in determining fair value. The hierarchy defines the highest priority inputs (Level 1) as quoted prices in active markets for identical assets or liabilities. The lowest priority inputs (Level 3) are our own assumptions about what a market participant would use in determining fair value such as estimated future cash flows. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, a financial instrument's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the financial instrument. We categorize financial assets and liabilities recorded at fair value in the consolidated balance sheets as follows:

- Level 1— Quoted prices are available in active markets for identical financial instruments as of the reporting date. We do not adjust the quoted price for these financial instruments, even in situations where we hold a large position and a sale could reasonably impact the quoted price.
- Level 2— Quoted prices in active markets for similar financial instruments, quoted prices for identical or similar financial instruments in markets that are not active; and models and other valuation methodologies using inputs other than quoted prices that are observable.
- Level 3— Models and other valuation methodologies using significant inputs that are unobservable for financial instruments and include situations where there is little, if any, market activity for the financial instrument. The inputs into the determination of fair value require significant management judgment or estimation. Financial instruments that are included in Level 3 are securities for which no market activity or data exists and for which we used discounted expected future cash flows with our own assumptions about what a market participant would use in determining fair value.

Transfers of securities among the levels occur at times and depend on the type of inputs used to determine fair value of each security. There were no transfers between levels during any period presented.

Our assets and liabilities which are measured at fair value on a recurring basis as of March 31, 2020 and December 31, 2019 are presented below based on the fair value hierarchy levels:

	Total Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
(Dollars in thousands)				
March 31, 2020				
Assets				
Fixed maturity securities, available for sale:				
United States Government full faith and credit	\$ 39,248	\$ 32,963	\$ 6,285	\$ —
United States Government sponsored agencies	338,561	—	338,561	—
United States municipalities, states and territories	3,765,163	—	3,765,163	—
Foreign government obligations	198,396	—	198,396	—
Corporate securities	31,135,319	8	31,135,311	—
Residential mortgage backed securities	1,765,033	—	1,765,033	—
Commercial mortgage backed securities	5,296,112	—	5,296,112	—
Other asset backed securities	5,167,035	—	5,167,035	—
Derivative instruments	207,265	—	207,265	—
Cash and cash equivalents	1,833,099	1,833,099	—	—
	<u>\$ 49,745,231</u>	<u>\$ 1,866,070</u>	<u>\$ 47,879,161</u>	<u>\$ —</u>
Liabilities				
Fixed index annuities - embedded derivatives	<u>\$ 8,451,482</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 8,451,482</u>
December 31, 2019				
Assets				
Fixed maturity securities, available for sale:				
United States Government full faith and credit	\$ 161,765	\$ 155,945	\$ 5,820	\$ —
United States Government sponsored agencies	625,020	—	625,020	—
United States municipalities, states and territories	4,527,671	—	4,527,671	—
Foreign government obligations	205,096	—	205,096	—
Corporate securities	32,536,839	4	32,536,835	—
Residential mortgage backed securities	1,575,664	—	1,575,664	—
Commercial mortgage backed securities	5,786,279	—	5,786,279	—
Other asset backed securities	6,162,156	—	6,162,156	—
Derivative instruments	1,355,989	—	1,355,989	—
Cash and cash equivalents	2,293,392	2,293,392	—	—
Interest rate caps	6	—	6	—
	<u>\$ 55,229,877</u>	<u>\$ 2,449,341</u>	<u>\$ 52,780,536</u>	<u>\$ —</u>
Liabilities				
Fixed index annuities - embedded derivatives	<u>\$ 9,624,395</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 9,624,395</u>

The following methods and assumptions were used in estimating the fair values of financial instruments during the periods presented in these consolidated financial statements.

Fixed maturity securities

The fair values of fixed maturity securities in an active and orderly market are determined by utilizing independent pricing services. The independent pricing services incorporate a variety of observable market data in their valuation techniques, including:

- reported trading prices,
- benchmark yields,
- broker-dealer quotes,
- benchmark securities,
- bids and offers,
- credit ratings,
- relative credit information, and
- other reference data.

The independent pricing services also take in to account perceived market movements and sector news, as well as a security's terms and conditions, including any features specific to that issue that may influence risk and marketability. Depending on the security, the priority of the use of observable market inputs may change as some observable market inputs may not be relevant or additional inputs may be necessary.

The independent pricing services provide quoted market prices when available. Quoted prices are not always available due to market inactivity. When quoted market prices are not available, the third parties use yield data and other factors relating to instruments or securities with similar characteristics to determine fair value for securities that are not actively traded. We generally obtain one value from our primary external pricing service. In situations where a price is not available from this service, we may obtain quotes or prices from additional parties as needed. Market indices of similar rated asset class spreads are considered for valuations and broker indications of similar securities are compared. Inputs used by the broker include market information, such as yield data and other factors relating to instruments or securities with similar characteristics. Valuations and quotes obtained from third party commercial pricing services are non-binding and do not represent quotes on which one may execute the disposition of the assets.

We validate external valuations at least quarterly through a combination of procedures that include the evaluation of methodologies used by the pricing services, comparison of the prices to a secondary pricing source, analytical reviews and performance analysis of the prices against trends, and maintenance of a securities watch list. Additionally, as needed we utilize discounted cash flow models or perform independent valuations on a case-by-case basis using inputs and assumptions similar to those used by the pricing services. Although we do identify differences from time to time as a result of these validation procedures, we did not make any significant adjustments as of March 31, 2020 and December 31, 2019.

Mortgage loans on real estate

Mortgage loans on real estate are not measured at fair value on a recurring basis. The fair values of mortgage loans on real estate are calculated using discounted expected cash flows using competitive market interest rates currently being offered for similar loans. The fair values of impaired mortgage loans on real estate that we have considered to be collateral dependent are based on the fair value of the real estate collateral (based on appraised values) less estimated costs to sell. The inputs utilized to determine fair value of all mortgage loans are unobservable market data (competitive market interest rates); therefore, fair value of mortgage loans falls into Level 3 in the fair value hierarchy.

Derivative instruments

The fair values of derivative instruments, primarily call options, are based upon the amount of cash that we will receive to settle each derivative instrument on the reporting date. These amounts are determined by our investment team using industry accepted valuation models and are adjusted for the nonperformance risk of each counterparty net of any collateral held. Inputs include market volatility and risk free interest rates and are used in income valuation techniques in arriving at a fair value for each option contract. The nonperformance risk for each counterparty is based upon its credit default swap rate. We have no performance obligations related to the call options purchased to fund our fixed index annuity policy liabilities.

Other investments

Financial instruments included in other investments that are not measured at fair value on a recurring basis are policy loans, equity method investments and company owned life insurance ("COLI"). We have not attempted to determine the fair values associated with our policy loans, as we believe any differences between carrying values and the fair values afforded these instruments are immaterial to our consolidated financial position and, accordingly, the cost to provide such disclosure does not justify the benefit to be derived. The fair values of our equity method investments are obtained from third parties and are determined using a variety of valuation techniques, including discounted cash flow analysis, valuation multiples analysis for comparable investments and appraisal values. As the risk spread and liquidity discount are unobservable market inputs, the fair value of our equity method investments falls within Level 3 of the fair value hierarchy. The fair value of our COLI approximates the cash surrender value of the policies and falls within Level 2 of the fair value hierarchy.

Cash and cash equivalents

Amounts reported in the consolidated balance sheets for these instruments are reported at their historical cost which approximates fair value due to the nature of the assets assigned to this category.

Interest rate caps

The fair values of our interest rate caps are obtained from third parties and are determined by discounting expected future cash flows using a projected London Interbank Offered Rate ("LIBOR") for the term of the caps.

Policy benefit reserves, coinsurance deposits and SPIA benefit reserves

The fair values of the liabilities under contracts not involving significant mortality or morbidity risks (principally deferred annuities), are stated at the cost we would incur to extinguish the liability (i.e., the cash surrender value) as these contracts are generally issued without an annuitization date. The coinsurance deposits related to the annuity benefit reserves have fair values determined in a similar fashion. For period-certain annuity benefit contracts, the fair value is determined by discounting the benefits at the interest rates currently in effect for newly issued immediate annuity contracts. We are not required to and 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 that are exceptions from financial instruments that require disclosures of fair value. Policy benefit reserves, coinsurance deposits and SPIA benefit reserves are not measured at fair value on a recurring basis. All of the fair values presented within these categories fall within Level 3 of the fair value hierarchy as most of the inputs are unobservable market data.

Notes payable

The fair values of our senior unsecured notes are based upon quoted market prices and are categorized as Level 2 within the fair value hierarchy. Notes payable are not remeasured at fair value on a recurring basis.

Subordinated debentures

Fair values for subordinated debentures are estimated using discounted cash flow calculations based principally on observable inputs including our incremental borrowing rates, which reflect our credit rating, for similar types of borrowings with maturities consistent with those remaining for the debt being valued. These fair values are categorized as Level 2 within the fair value hierarchy. Subordinated debentures are not measured at fair value on a recurring basis.

Amounts due under repurchase agreements

The amounts reported in the consolidated balance sheets for short term indebtedness under repurchase agreements with variable interest rates approximate their fair values.

Fixed index annuities - embedded derivatives

We estimate the fair value of the embedded derivative component of our fixed index annuity policy benefit reserves at each valuation date by (i) projecting policy contract values and minimum guaranteed contract values over the expected lives of the contracts and (ii) discounting the excess of the projected contract value amounts at the applicable risk free interest rates adjusted for our nonperformance risk related to those liabilities. The projections of policy contract values are based on our best estimate assumptions for future policy growth and future policy decrements. Our best estimate assumptions for future policy growth include assumptions for the expected index credit on the next policy anniversary date which are derived from the fair values of the underlying call options purchased to fund such index credits and the expected costs of annual call options we will purchase in the future to fund index credits beyond the next policy anniversary. The projections of minimum guaranteed contract values include the same best estimate assumptions for policy decrements as were used to project policy contract values.

Within this determination we have the following significant unobservable inputs: 1) the expected cost of annual call options we will purchase in the future to fund index credits beyond the next policy anniversary and 2) our best estimates for future policy decrements, primarily lapse, partial withdrawal and mortality rates. As of both March 31, 2020 and December 31, 2019, we utilized an estimate of 2.90% for the expected cost of annual call options, which is based on estimated long-term account value growth and a historical review of our actual option costs.

Our best estimate assumptions for lapse, partial withdrawal and mortality rates are based on our actual experience and our outlook as to future expectations for such assumptions. These assumptions, which are consistent with the assumptions used in calculating deferred policy acquisition costs and deferred sales inducements, are reviewed on a quarterly basis and are revised as our experience develops and/or as future expectations change. The following table presents average lapse rate and partial withdrawal rate assumptions, by contract duration, used in estimating the fair value of the embedded derivative component of our fixed index annuity policy benefit reserves at each reporting date:

Contract Duration (Years)	Average Lapse Rates		Average Partial Withdrawal Rates	
	March 31, 2020	December 31, 2019	March 31, 2020	December 31, 2019
1 - 5	0.93%	0.90%	3.37%	3.33%
6 - 10	1.29%	1.29%	3.87%	3.84%
11 - 15	3.27%	3.31%	4.13%	4.12%
16 - 20	7.83%	8.52%	4.19%	4.18%
20+	7.21%	7.10%	4.14%	4.12%

Lapse rates are generally expected to increase as surrender charge percentages decrease. Lapse expectations reflect a significant increase in the year in which the surrender charge period on a contract ends.

The following table provides a reconciliation of the beginning and ending balances for our Level 3 liabilities, which are measured at fair value on a recurring basis using significant unobservable inputs for the three months ended March 31, 2020 and 2019:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Fixed index annuities - embedded derivatives		
Beginning balance	\$ 9,624,395	\$ 8,165,405
Premiums less benefits	112,158	58,008
Change in fair value, net	(1,285,071)	652,642
Ending balance	\$ 8,451,482	\$ 8,876,055

The fair value of our fixed index annuities embedded derivatives is net of coinsurance ceded of \$550.3 million and \$644.6 million as of March 31, 2020 and December 31, 2019, respectively. Change in fair value, net for each period in our embedded derivatives is included in change in fair value of embedded derivatives in the unaudited consolidated statements of operations.

Certain derivatives embedded in our fixed index annuity contracts are our most significant financial instrument measured at fair value that are categorized as Level 3 in the fair value hierarchy. The contractual obligations for future annual index credits within our fixed index annuity contracts are treated as a "series of embedded derivatives" over the expected life of the applicable contracts. We estimate the fair value of these embedded derivatives at each valuation date by the method described above under **fixed index annuities - embedded derivatives**. The projections of minimum guaranteed contract values include the same best estimate assumptions for policy decrements as were used to project policy contract values.

The most sensitive assumption in determining policy liabilities for fixed index annuities is the rates used to discount the excess projected contract values. As indicated above, the discount rate reflects our nonperformance risk. If the discount rates used to discount the excess projected contract values at March 31, 2020, were to increase by 100 basis points, the fair value of the embedded derivatives would decrease by \$781.3 million recorded through operations as a decrease in the change in fair value of embedded derivatives and there would be a corresponding decrease of \$314.7 million to our combined balance for deferred policy acquisition costs and deferred sales inducements recorded through operations as an increase in amortization of deferred policy acquisition costs and deferred sales inducements. A decrease by 100 basis points in the discount rates used to discount the excess projected contract values would increase the fair value of the embedded derivatives by \$930.0 million recorded through operations as an increase in the change in fair value of embedded derivatives and there would be a corresponding increase of \$388.4 million to our combined balance for deferred policy acquisition costs and deferred sales inducements recorded through operations as a decrease in amortization of deferred policy acquisition costs and deferred sales inducements.

3. Investments

At March 31, 2020 and December 31, 2019, the amortized cost and fair value of fixed maturity securities were as follows:

	Amortized Cost (1)	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Losses	Fair Value
(Dollars in thousands)					
March 31, 2020					
Fixed maturity securities, available for sale:					
United States Government full faith and credit	\$ 36,501	\$ 2,747	\$ —	\$ —	\$ 39,248
United States Government sponsored agencies	293,722	44,839	—	—	338,561
United States municipalities, states and territories	3,357,142	412,151	(4,130)	—	3,765,163
Foreign government obligations	187,007	15,854	(4,465)	—	198,396
Corporate securities	29,879,520	2,111,969	(827,838)	(28,332)	31,135,319
Residential mortgage backed securities	1,671,466	118,172	(24,605)	—	1,765,033
Commercial mortgage backed securities	5,540,607	66,402	(310,897)	—	5,296,112
Other asset backed securities	6,288,098	71,952	(1,193,015)	—	5,167,035
	<u>\$ 47,254,063</u>	<u>\$ 2,844,086</u>	<u>\$ (2,364,950)</u>	<u>\$ (28,332)</u>	<u>\$ 47,704,867</u>
December 31, 2019					
Fixed maturity securities, available for sale:					
United States Government full faith and credit	\$ 161,492	\$ 369	\$ (96)	\$ —	\$ 161,765
United States Government sponsored agencies	601,672	28,133	(4,785)	—	625,020
United States municipalities, states and territories	4,147,343	388,578	(8,250)	—	4,527,671
Foreign government obligations	186,993	18,103	—	—	205,096
Corporate securities	29,822,172	2,796,926	(82,259)	—	32,536,839
Residential mortgage backed securities	1,477,738	101,617	(3,691)	—	1,575,664
Commercial mortgage backed securities	5,591,167	208,895	(13,783)	—	5,786,279
Other asset backed securities	6,250,369	90,978	(179,191)	—	6,162,156
	<u>\$ 48,238,946</u>	<u>\$ 3,633,599</u>	<u>\$ (292,055)</u>	<u>\$ —</u>	<u>\$ 51,580,490</u>

(1) Amortized cost excludes accrued interest receivable of \$456.1 million as of March 31, 2020.

The amortized cost and fair value of fixed maturity securities at March 31, 2020, by contractual maturity are shown below. Actual maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. All of our mortgage and other asset backed securities provide for periodic payments throughout their lives and are shown below as separate lines.

	Available for sale	
	Amortized Cost	Fair Value
(Dollars in thousands)		
Due in one year or less	\$ 387,348	\$ 389,729
Due after one year through five years	5,969,737	5,968,168
Due after five years through ten years	9,922,493	10,073,950
Due after ten years through twenty years	9,691,164	10,713,363
Due after twenty years	7,783,150	8,331,477
	33,753,892	35,476,687
Residential mortgage backed securities	1,671,466	1,765,033
Commercial mortgage backed securities	5,540,607	5,296,112
Other asset backed securities	6,288,098	5,167,035
	<u>\$ 47,254,063</u>	<u>\$ 47,704,867</u>

Net unrealized gains on available for sale fixed maturity securities reported as a separate component of stockholders' equity were comprised of the following:

	March 31, 2020	December 31, 2019
(Dollars in thousands)		
Net unrealized gains on available for sale fixed maturity securities	\$ 479,136	\$ 3,341,544
Adjustments for assumed changes in amortization of deferred policy acquisition costs and deferred sales inducements	(229,213)	(1,473,966)
Deferred income tax valuation allowance reversal	22,534	22,534
Deferred income tax expense	(52,483)	(392,191)
Net unrealized gains reported as accumulated other comprehensive income	<u>\$ 219,974</u>	<u>\$ 1,497,921</u>

The National Association of Insurance Commissioners ("NAIC") assigns designations to fixed maturity securities. These designations range from Class 1 (highest quality) to Class 6 (lowest quality). In general, securities are assigned a designation based upon the ratings they are given by the Nationally Recognized Statistical Rating Organizations ("NRSRO's"). The NAIC designations are utilized by insurers in preparing their annual statutory statements. NAIC Class 1 and 2 designations are considered "investment grade" while NAIC Class 3 through 6 designations are considered "non-investment grade." Based on the NAIC designations, we had 98% of our fixed maturity portfolio rated investment grade at both March 31, 2020 and December 31, 2019, respectively.

The following table summarizes the credit quality, as determined by NAIC designation, of our fixed maturity portfolio as of the dates indicated:

NAIC Designation	March 31, 2020		December 31, 2019	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
(Dollars in thousands)				
1	\$ 26,309,850	\$ 27,739,779	\$ 27,781,525	\$ 30,122,657
2	19,582,082	18,999,760	19,278,355	20,316,911
3	1,167,772	838,628	1,001,087	977,191
4	128,826	104,090	114,497	112,534
5	60,550	18,433	57,952	45,205
6	4,983	4,177	5,530	5,992
	<u>\$ 47,254,063</u>	<u>\$ 47,704,867</u>	<u>\$ 48,238,946</u>	<u>\$ 51,580,490</u>

The following table shows our investments' gross unrealized losses and fair value, aggregated by investment category and length of time that individual securities (consisting of 2,475 and 1,033 securities, respectively) have been in a continuous unrealized loss position, at March 31, 2020 and December 31, 2019:

	Less than 12 months		12 months or more		Total	
	Fair Value	Unrealized Losses (1)	Fair Value	Unrealized Losses (1)	Fair Value	Unrealized Losses (1)
(Dollars in thousands)						
March 31, 2020						
Fixed maturity securities, available for sale:						
United States municipalities, states and territories	\$ 209,291	\$ (4,130)	\$ —	\$ —	\$ 209,291	\$ (4,130)
Foreign government obligations	60,079	(4,465)	—	—	60,079	(4,465)
Corporate securities:						
Finance, insurance and real estate	1,970,305	(109,704)	3,547	(372)	1,973,852	(110,076)
Manufacturing, construction and mining	1,154,320	(60,623)	24,866	(6,705)	1,179,186	(67,328)
Utilities and related sectors	1,375,023	(87,628)	43,307	(10,413)	1,418,330	(98,041)
Wholesale/retail trade	643,529	(63,887)	88,471	(44,320)	732,000	(108,207)
Services, media and other	2,683,039	(366,658)	183,159	(105,860)	2,866,198	(472,518)
Residential mortgage backed securities	740,561	(23,072)	10,375	(1,533)	750,936	(24,605)
Commercial mortgage backed securities	3,979,173	(296,598)	94,240	(14,299)	4,073,413	(310,897)
Other asset backed securities	1,992,190	(376,030)	2,193,650	(816,985)	4,185,840	(1,193,015)
	<u>\$ 14,807,510</u>	<u>\$ (1,392,795)</u>	<u>\$ 2,641,615</u>	<u>\$ (1,000,487)</u>	<u>\$ 17,449,125</u>	<u>\$ (2,393,282)</u>
December 31, 2019						
Fixed maturity securities, available for sale:						
United States Government full faith and credit	\$ 144,582	\$ (96)	\$ —	\$ —	\$ 144,582	\$ (96)
United States Government sponsored agencies	168,732	(1,229)	201,444	(3,556)	370,176	(4,785)
United States municipalities, states and territories	285,481	(8,173)	3,081	(77)	288,562	(8,250)
Corporate securities:						
Finance, insurance and real estate	267,521	(4,785)	121,993	(4,744)	389,514	(9,529)
Manufacturing, construction and mining	161,633	(6,039)	44,606	(3,951)	206,239	(9,990)
Utilities and related sectors	334,635	(7,730)	51,269	(3,482)	385,904	(11,212)
Wholesale/retail trade	54,289	(1,751)	129,364	(9,411)	183,653	(11,162)
Services, media and other	275,135	(6,135)	316,086	(34,231)	591,221	(40,366)
Residential mortgage backed securities	212,404	(2,686)	11,332	(1,005)	223,736	(3,691)
Commercial mortgage backed securities	602,394	(9,366)	194,328	(4,417)	796,722	(13,783)
Other asset backed securities	752,413	(11,709)	3,375,016	(167,482)	4,127,429	(179,191)
	<u>\$ 3,259,219</u>	<u>\$ (59,699)</u>	<u>\$ 4,448,519</u>	<u>\$ (232,356)</u>	<u>\$ 7,707,738</u>	<u>\$ (292,055)</u>

(1) Unrealized losses have not been reduced to reflect the allowance for credit losses of \$28.3 million as of March 31, 2020.

The unrealized losses at March 31, 2020 are related to the impacts the COVID-19 pandemic had on credit markets. While treasury yields declined during the three months ended March 31, 2020, credit spreads widened dramatically. The widening of credit spreads in most cases was driven by a flight to quality into treasury securities due to illiquidity and uncertainty of the impact of the COVID-19 pandemic on the economy. In addition, certain unrealized losses at March 31, 2020 are related to the timing of the purchases of certain securities, which carry less yield than those currently available. Approximately 84% and 79% of the unrealized losses on fixed maturity securities shown in the above table for March 31, 2020 and December 31, 2019, respectively, are on securities that are rated investment grade, defined as being the highest two NAIC designations.

We expect to recover our amortized cost on all securities except for those securities on which we recognized an allowance for credit loss. In addition, because we did not have the intent to sell fixed maturity securities with unrealized losses and it was not more likely than not that we would be required to sell these securities prior to recovery of the amortized cost, which may be maturity, we did not write down these investments to fair value through operations.

Changes in net unrealized gains/losses on investments for the three months ended March 31, 2020 and 2019 are as follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Fixed maturity securities available for sale carried at fair value	\$ (2,862,408)	\$ 1,517,520
Adjustment for effect on other balance sheet accounts:		
Deferred policy acquisition costs and deferred sales inducements	1,244,753	(800,901)
Deferred income tax asset/liability	339,708	(150,490)
	1,584,461	(951,391)
Change in net unrealized gains/losses on investments carried at fair value	\$ (1,277,947)	\$ 566,129

Proceeds from sales of available for sale fixed maturity securities for the three months ended March 31, 2020 and 2019 were \$910.3 million and \$136.0 million, respectively. Scheduled principal repayments, calls and tenders for available for sale fixed maturity securities for the three months ended March 31, 2020 and 2019 were \$1.0 billion and \$150.9 million, respectively.

Realized gains and losses on sales are determined on the basis of specific identification of investments based on the trade date. Net realized gains (losses) on investments for the three months ended March 31, 2020 and 2019, are as follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Available for sale fixed maturity securities:		
Gross realized gains	\$ 14,238	\$ 1,171
Gross realized losses	(1,206)	(1,794)
	13,032	(623)
Mortgage loans on real estate:		
Increase (decrease) in allowance for credit losses	(1,997)	60
	\$ 11,035	\$ (563)

Losses on available for sale fixed maturity securities in 2020 and 2019 were realized primarily due to strategies to reposition the fixed maturity security portfolio that result in improved net investment income, credit risk or duration profiles as they pertain to our asset liability management.

We review and analyze all investments on an ongoing basis for changes in market interest rates and credit deterioration. This review process includes analyzing our ability to recover the amortized cost basis of each investment that has a fair value that is materially lower than its amortized cost and requires a high degree of management judgment and involves uncertainty. The evaluation of securities for credit loss is a quantitative and qualitative process, which is subject to risks and uncertainties.

We have a policy and process to identify securities that could potentially have credit loss. This process involves monitoring market events and other items that could impact issuers. The evaluation includes but is not limited to such factors as:

- the extent to which the fair value has been less than amortized cost or cost;
- whether the issuer is current on all payments and all contractual payments have been made as agreed;
- the remaining payment terms and the financial condition and near-term prospects of the issuer;
- the lack of ability to refinance due to liquidity problems in the credit market;
- the fair value of any underlying collateral;
- the existence of any credit protection available;
- our intent to sell and whether it is more likely than not we would be required to sell prior to recovery for debt securities;
- consideration of rating agency actions; and
- changes in estimated cash flows of mortgage and asset backed securities.

We determine whether an allowance for credit loss should be established for debt securities by assessing all facts and circumstances surrounding each security. Where the decline in fair value of debt securities is attributable to changes in market interest rates or to factors such as market volatility, liquidity and spread widening, and we anticipate recovery of all contractual or expected cash flows, we do not consider these investments to have credit loss because we do not intend to sell these investments and it is not more likely than not we will be required to sell these investments before a recovery of amortized cost, which may be maturity.

If we intend to sell a debt security or if it is more likely than not that we will be required to sell a debt security before recovery of its amortized cost basis, credit loss has occurred and the difference between amortized cost and fair value will be recognized as a loss in operations.

If we do not intend to sell and it is not more likely than not we will be required to sell the debt security but also do not expect to recover the entire amortized cost basis of the security, a credit loss would be recognized in operations for the amount of the expected credit loss. We determine the amount of expected credit loss by calculating the present value of the cash flows expected to be collected discounted at each security's acquisition yield based on our consideration of whether the security was of high credit quality at the time of acquisition. The difference between the present value of expected future cash flows and the amortized cost basis of the security is the amount of credit loss recognized in operations.

The determination of the credit loss component of a mortgage backed security is based on a number of factors. The primary consideration in this evaluation process is the issuer's ability to meet current and future interest and principal payments as contractually stated at time of purchase. Our review of these securities includes an analysis of the cash flow modeling under various default scenarios considering independent third party benchmarks, the seniority of the specific tranche within the structure of the security, the composition of the collateral and the actual default, loss severity and prepayment experience exhibited. With the input of third party assumptions for default projections, loss severity and prepayment expectations, we evaluate the cash flow projections to determine whether the security is performing in accordance with its contractual obligation.

We utilize models from a leading structured product software specialist serving institutional investors. These models incorporate each security's seniority and cash flow structure. In circumstances where the analysis implies a potential for principal loss at some point in the future, we use the "best estimate" cash flow projection discounted at the security's effective yield at acquisition to determine the amount of our potential credit loss associated with this security. The discounted expected future cash flows equates to our expected recovery value. Any shortfall of the expected recovery when compared to the amortized cost of the security will be recorded as credit loss.

The cash flow modeling is performed on a security-by-security basis and incorporates actual cash flows on the residential mortgage backed securities through the current period, as well as the projection of remaining cash flows using a number of assumptions including default rates, prepayment rates and loss severity rates. The default curves we use are tailored to the Prime or Alt-A residential mortgage backed securities that we own, which assume lower default rates and loss severity for Prime securities versus Alt-A securities. These default curves are scaled higher or lower depending on factors such as current underlying mortgage loan performance, rating agency loss projections, loan to value ratios, geographic diversity, as well as other appropriate considerations.

The determination of the credit loss component of a corporate bond is based on the underlying financial performance of the issuer and their ability to meet their contractual obligations. Considerations in our evaluation include, but are not limited to, credit rating changes, financial statement and ratio analysis, changes in management, significant changes in credit spreads, breaches of financial covenants and a review of the economic outlook for the industry and markets in which they trade. In circumstances where an issuer appears unlikely to meet its future obligation, an estimate of credit loss is determined. Credit loss is calculated using default probabilities as derived from the credit default swaps markets in conjunction with recovery rates derived from independent third party analysis or a best estimate of credit loss. This credit loss rate is then incorporated into a present value calculation based on an expected principal loss in the future discounted at the yield at the date of purchase and compared to amortized cost to determine the amount of credit loss associated with the security.

We do not measure a credit loss allowance on accrued interest receivable as we write off any accrued interest receivable balance to net investment income in a timely manner when we have concerns regarding collectability.

Amounts on available for sale fixed maturities that are deemed to be uncollectible are written off and removed from the allowance for credit loss. A write-off may also occur if we intend to sell a security or when it is more likely than not we will be required to sell the security before the recovery of its amortized cost.

The following table provides a rollforward of the allowance for credit loss:

	Three Months Ended March 31, 2020			
	Corporate Securities	Commercial Mortgage Backed Securities	Other Asset Backed Securities	Total
(Dollars in thousands)				
Beginning balance (1)	\$ —	\$ —	\$ —	\$ —
Additions for credit losses not previously recorded	28,332	2,491	548	31,371
Reduction for securities with credit losses due to intent to sell	—	(2,491)	(548)	(3,039)
Ending balance	<u>\$ 28,332</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 28,332</u>

(1) The allowance for credit loss associated with available for sale fixed maturity securities was applied prospectively upon adoption of authoritative guidance effective January 1, 2020. See Note 1 for further details.

Prior to the implementation of authoritative guidance in 2020, we evaluated our investments for other than temporary impairments using a method consistent with our current credit loss evaluation process discussed above. In addition, we also considered length of time the fair value had been less than amortized cost or cost in our evaluation.

If we did not intend to sell and it was not more likely than not we would be required to sell the debt security but also did not expect to recover the entire amortized cost basis of the security, an impairment loss was recognized in operations in the amount of the expected credit loss. The difference between the present value of expected future cash flows and the amortized cost basis of the security was the amount of credit loss recognized in operations. The remaining amount of the other than temporary impairment was recognized in other comprehensive income (loss).

In addition, for debt securities which we did not intend to sell and it was not more likely than not we would be required to sell, but our intent changed due to changes or events that could not have been reasonably anticipated, an other than temporary impairment charge was recognized. Once an impairment charge had been recorded, we then continued to review the other than temporarily impaired securities for appropriate valuation on an ongoing basis. Unrealized losses may have been recognized in future periods through a charge to earnings should we have later concluded that the decline in fair value below amortized cost was other than temporary pursuant to our accounting policy.

There were no other than temporary impairments for the three months ended March 31, 2019.

The cumulative portion of other than temporary impairments determined to be credit losses which have been recognized in operations for debt securities are summarized as follows:

	Three Months Ended March 31, 2019
	(Dollars in thousands)
Cumulative credit loss at beginning of period	\$ (175,398)
Additions for the amount related to credit losses for which OTTI has not previously been recognized	—
Additional credit losses on securities for which OTTI has previously been recognized	—
Accumulated losses on securities that were disposed of during the period	—
Cumulative credit loss at end of period	<u>\$ (175,398)</u>

The following table summarizes the cumulative noncredit portion of OTTI and the change in fair value since recognition of OTTI, both of which were recognized in other comprehensive income, by major type of security, for securities that are part of our investment portfolio at December 31, 2019:

	Amortized Cost	OTTI Recognized in Other Comprehensive Income (Loss)	Change in Fair Value Since OTTI was Recognized	Fair Value
	(Dollars in thousands)			
December 31, 2019				
Fixed maturity securities, available for sale:				
Corporate securities	\$ 50,755	\$ (3,700)	\$ 9,268	\$ 56,323
Residential mortgage backed securities	183,948	(145,446)	172,577	211,079
Commercial mortgage backed securities	12,776	—	(401)	12,375
Other asset backed securities	977	—	261	1,238
	<u>\$ 248,456</u>	<u>\$ (149,146)</u>	<u>\$ 181,705</u>	<u>\$ 281,015</u>

4. Mortgage Loans on Real Estate

Our financing receivables currently consist of one portfolio segment which is our commercial mortgage loan portfolio. Our commercial mortgage loan portfolio is summarized in the following table. There were commitments outstanding of \$247.5 million at March 31, 2020.

	March 31, 2020	December 31, 2019
	(Dollars in thousands)	
Principal outstanding	\$ 3,689,302	\$ 3,458,914
Deferred prepayment fees	(901)	(942)
Amortized cost	3,688,401	3,457,972
Valuation allowance	(19,776)	(9,179)
Carrying value	<u>\$ 3,668,625</u>	<u>\$ 3,448,793</u>

Our commercial mortgage loan portfolio consists of loans collateralized by the related properties and diversified as to property type, location and loan size. Our mortgage lending policies establish limits on the amount that can be loaned to one borrower and other criteria to attempt to reduce the risk of default. The mortgage loan portfolio is summarized by geographic region and property type as follows:

	March 31, 2020		December 31, 2019	
	Principal	Percent	Principal	Percent
(Dollars in thousands)				
Geographic distribution				
East	\$ 705,459	19.1%	\$ 645,991	18.7%
Middle Atlantic	290,232	7.9%	284,597	8.2%
Mountain	393,338	10.7%	389,892	11.3%
New England	11,284	0.3%	9,152	0.3%
Pacific	730,262	19.8%	655,518	19.0%
South Atlantic	809,663	21.9%	751,199	21.7%
West North Central	304,069	8.2%	302,534	8.7%
West South Central	444,995	12.1%	420,031	12.1%
	<u>\$ 3,689,302</u>	<u>100.0%</u>	<u>\$ 3,458,914</u>	<u>100.0%</u>
Property type distribution				
Office	\$ 262,446	7.1%	\$ 250,287	7.3%
Medical Office	29,551	0.8%	29,990	0.9%
Retail	1,222,985	33.2%	1,225,670	35.4%
Industrial/Warehouse	938,104	25.4%	896,558	25.9%
Apartment	956,947	25.9%	858,679	24.8%
Agricultural	95,606	2.6%	51,303	1.5%
Mixed use/Other	183,663	5.0%	146,427	4.2%
	<u>\$ 3,689,302</u>	<u>100.0%</u>	<u>\$ 3,458,914</u>	<u>100.0%</u>

Commercial mortgage loans are reported at cost, adjusted for amortization of premiums and accrual of discounts. Amortized cost excludes accrued interest receivable. Interest income is accrued on the principal amount of the loan based on the loan's contractual interest rate. Interest income is included in Net investment income on our consolidated statements of operations. Accrued interest receivable, which was \$12.8 million as of March 31, 2020, is included in Accrued investment income on our consolidated balance sheets.

All loans are subject to the Company's internal and external review and monitoring to assess the credit quality of our loan portfolio. We rate each of our loans based on an analysis of the current state of the borrower's credit quality. The analysis of credit quality includes a review of factors such as loan-to-value ("LTV") and debt service coverage ("DSC") ratios and economic outlook, among others. LTV and DSC ratios are the driving factors for the risk ratings which are utilized for estimating the allowance for loan losses. LTV and DSC ratios are originally calculated at the time of loan origination and are updated annually for each loan using information such as rent rolls, assessment of lease maturity dates and property operating statements, which are reviewed in the context of current leasing and in place rents compared to market leasing and market rents. A DSC ratio of less than 1.0 indicates that a property's operations do not generate sufficient income to cover debt payments. An LTV ratio in excess of 100% indicates the unpaid loan amount exceeds the value of the underlying collateral. All of our mortgage loans that have a debt service coverage ratio of less than 1.0 are performing under the original contractual loan terms at March 31, 2020. A summary of our portfolio by LTV and DSC ratios based on the most recent information collected follows (by year of origination):

	2020		2019		2018		2017		2016		Prior		Total	
	Amortized Cost	Average LTV	Amortized Cost	Average LTV	Amortized Cost	Average LTV	Amortized Cost	Average LTV	Amortized Cost	Average LTV	Amortized Cost	Average LTV	Amortized Cost	Average LTV
As of March 31, 2020	(Dollars in thousands)													
Debt Service Coverage Ratio:														
Greater than or equal to 1.5	\$ 209,636	63%	\$ 463,287	67%	\$ 411,362	61%	\$ 308,703	58%	\$ 394,953	56%	\$ 863,496	47%	\$ 2,651,437	56%
Greater than or equal to 1.2 and less than 1.5	108,167	68%	299,053	69%	145,090	71%	159,166	66%	37,411	60%	138,857	54%	887,744	66%
Greater than or equal to 1.0 and less than 1.2	3,600	68%	36,219	61%	11,056	73%	15,725	65%	4,017	47%	45,125	60%	115,742	62%
Less than 1.0	—	—%	1,450	43%	9,472	70%	—	—%	—	—%	22,556	52%	33,478	57%
Total	<u>\$ 321,403</u>	<u>65%</u>	<u>\$ 800,009</u>	<u>68%</u>	<u>\$ 576,980</u>	<u>64%</u>	<u>\$ 483,594</u>	<u>61%</u>	<u>\$ 436,381</u>	<u>56%</u>	<u>\$ 1,070,034</u>	<u>48%</u>	<u>\$ 3,688,401</u>	<u>59%</u>

We evaluate our commercial mortgage loan portfolio for the establishment of a loan loss allowance by specific identification of impaired loans. A mortgage loan is impaired when it is probable that we will be unable to collect all amounts due according to the contractual terms of the loan agreement. If we determine that the value of any specific mortgage loan is impaired, the carrying amount of the mortgage loan will be reduced to its fair value, based upon the present value of expected future cash flows from the loan discounted at the loan's effective interest rate, or the fair value of the underlying collateral less estimated costs to sell.

We analyze our commercial mortgage loan portfolio for the need of a general loan allowance for expected credit losses on all other loans on a quantitative and qualitative basis by grouping assets with similar risk characteristics when there is not a specific expectation of a loss for an individual loan. The amount of the general loan allowance is based upon management's evaluation of the collectability of the loan portfolio, historical loss experience, delinquencies, credit concentrations, underwriting standards and national and local economic conditions. We do not measure a credit loss allowance on accrued interest receivable as we write off any uncollectible accrued interest receivable balance to net investment income in a timely manner. We did not charge off any uncollectible accrued interest receivable on our commercial mortgage loan portfolio during the period ended March 31, 2020.

Our commercial mortgage loans are pooled by risk rating and property collateral type and an estimated loss ratio is applied against each risk pool. The loss ratios are generally based upon historical loss experience for each risk pool and are adjusted for current and forecasted economic factors management believes to be relevant and supportable. Economic factors are forecasted for two years with immediate reversion to historical experience.

The following table presents a rollforward of our specific and general valuation allowances for our commercial mortgage loan portfolio:

	Three Months Ended March 31, 2020		Three Months Ended March 31, 2019	
	Specific Allowance	General Allowance	Specific Allowance	General Allowance
(Dollars in thousands)				
Beginning allowance balance (1)	\$ (229)	\$ (17,550)	\$ (229)	\$ (8,010)
Charge-offs	—	—	—	—
Recoveries	—	—	—	—
Change in provision for credit losses	(2,197)	200	—	60
Ending allowance balance	<u>\$ (2,426)</u>	<u>\$ (17,350)</u>	<u>\$ (229)</u>	<u>\$ (7,950)</u>

(1) Upon adoption of authoritative guidance effective January 1, 2020, we updated our accounting policies and methodology for calculating the general loan loss allowance, resulting in an adjustment to our commercial mortgage loan valuation allowance. See Note 1 for further details.

The specific allowance represents the total credit loss allowances on loans which are individually evaluated for impairment. The general allowance is for the group of loans discussed above which are collectively evaluated for impairment.

Charge-offs include allowances that have been established on loans that were satisfied either by taking ownership of the collateral or by some other means such as discounted pay-off or loan sale. When ownership of the property is taken it is recorded at the lower of the loan's carrying value or the property's fair value (based on appraised values) less estimated costs to sell. The real estate owned is recorded as a component of Other investments and the loan is recorded as fully paid, with any allowance for credit loss that has been established charged off. Fair value of the real estate is determined by third party appraisal. Recoveries are situations where we have received a payment from the borrower in an amount greater than the carrying value of the loan (principal outstanding less specific allowance). We did not own any real estate during the three months ended March 31, 2020 and 2019.

We analyze credit risk of our mortgage loans by analyzing all available evidence on loans that are delinquent and loans that are in a workout period.

	March 31, 2020	December 31, 2019
	(Dollars in thousands)	
Credit Exposure - By Payment Activity		
Performing	\$ 3,684,149	\$ 3,457,972
In workout	—	—
Collateral dependent	4,252	—
	\$ 3,688,401	\$ 3,457,972

Loans that are categorized as "in workout" consist of loans that we have agreed to lower or no mortgage payments for a period of time while the borrowers address cash flow and/or operational issues. The key features of these workouts are determined on a loan-by-loan basis. Most of these loans are in a period of low cash flow due to tenants vacating their space or tenants requesting rent relief during difficult economic periods. Generally, we allow the borrower a six month interest only period and in some cases a twelve month period of interest only. Interest only workout loans are expected to return to their regular debt service payments after the interest only period. Interest only loans that are not fully amortizing will have a larger balance at their balloon date than originally contracted. Fully amortizing loans that are in interest only periods will have larger debt service payments for their remaining term due to lost principal payments during the interest only period. In limited circumstances we have allowed borrowers to pay the principal portion of their loan payment into an escrow account that can be used for capital and tenant improvements for a period of not more than twelve months. In these situations new loan amortization schedules are calculated based on the principal not collected during this twelve month workout period and larger payments are collected for the remaining term of each loan. In all cases, the original interest rate and maturity date have not been modified, and we have not forgiven any principal amounts.

Loans that are categorized as "collateral dependent" consist of loans for which we will depend on the value of the collateral real estate to satisfy the outstanding principal of the loan.

Mortgage loans are considered delinquent when they become 60 days or more past due. When loans become more than 90 days past due we place them on non-accrual status and discontinue recognizing interest income. If payments are received on a delinquent loan, interest income is recognized to the extent it would have been recognized if normal principal and interest would have been received timely. If payments are received to bring a delinquent loan back to current, we will resume accruing interest income on that loan. There were no loans in non-accrual status at March 31, 2020 and December 31, 2019. We recognized no interest income on loans in non-accrual status during the three months ended March 31, 2020 and 2019.

All of our commercial mortgage loans depend on the cash flow of the borrower to be at a sufficient level to service the principal and interest payments as they come due. In general, cash inflows of the borrowers are generated by collecting monthly rent from tenants occupying space within the borrowers' properties. Our borrowers face collateral risks such as tenants going out of business, tenants struggling to make rent payments as they become due, and tenants canceling leases and moving to other locations. We have a number of loans where the real estate is occupied by a single tenant. Our borrowers sometimes face both a reduction in cash flow on their mortgage property as well as a reduction in the fair value of the real estate collateral. If borrowers are unable to replace lost rent revenue and increases in the fair value of their property do not materialize, we could potentially incur more losses than what we have allowed for in our specific and general loan loss allowances.

Aging of financing receivables is summarized in the following table, with loans in a "workout" period as of the reporting date considered current if payments are current in accordance with agreed upon terms:

	30 - 59 Days		60 - 89 Days		90 Days and Over		Total Past Due		Current		Collateral Dependent Receivables		Total Financing Receivables	
(Dollars in thousands)														
Commercial Mortgage Loans														
March 31, 2020	\$	—	\$	—	\$	—	\$	—	\$	3,684,149	\$	4,252	\$	3,688,401
December 31, 2019	\$	—	\$	—	\$	—	\$	—	\$	3,457,972	\$	—	\$	3,457,972

A Troubled Debt Restructuring ("TDR") is a situation where we have granted a concession to a borrower for economic or legal reasons related to the borrower's financial difficulties that we would not otherwise consider. A mortgage loan that has been granted new terms, including workout terms as described previously, would be considered a TDR if it meets conditions that would indicate a borrower is experiencing financial difficulty and the new terms constitute a concession on our part. We analyze all loans where we have agreed to workout terms and all loans that we have refinanced to determine if they meet the definition of a TDR. We consider the following factors in determining whether or not a borrower is experiencing financial difficulty:

- borrower is in default,
- borrower has declared bankruptcy,
- there is growing concern about the borrower's ability to continue as a going concern,
- borrower has insufficient cash flows to service debt,
- borrower's inability to obtain funds from other sources, and
- there is a breach of financial covenants by the borrower.

If the borrower is determined to be in financial difficulty, we consider the following conditions to determine if the borrower is granted a concession:

- assets used to satisfy debt are less than our recorded investment,
- interest rate is modified,
- maturity date extension at an interest rate less than market rate,
- capitalization of interest,
- delaying principal and/or interest for a period of three months or more, and
- partial forgiveness of the balance or charge-off.

Mortgage loan workouts, refinances or restructures that are classified as TDRs are individually evaluated and measured for impairment. There were no mortgage loans on commercial real estate that we determined to be a TDR at March 31, 2020 and December 31, 2019.

5. Derivative Instruments

None of our derivatives qualify for hedge accounting, thus, any change in the fair value of the derivatives is recognized immediately in the consolidated statements of operations. The fair value of our derivative instruments, including derivative instruments embedded in fixed index annuity contracts, presented in the consolidated balance sheets are as follows:

	March 31, 2020	December 31, 2019
	(Dollars in thousands)	
Assets		
Derivative instruments		
Call options	\$ 207,265	\$ 1,355,989
Other assets		
Interest rate caps	—	6
	<u>\$ 207,265</u>	<u>\$ 1,355,995</u>
Liabilities		
Policy benefit reserves - annuity products		
Fixed index annuities - embedded derivatives, net	<u>\$ 8,451,482</u>	<u>\$ 9,624,395</u>

The changes in fair value of derivatives included in the unaudited consolidated statements of operations are as follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Change in fair value of derivatives:		
Call options	\$ (941,936)	\$ 385,166
Interest rate swap	—	(368)
Interest rate caps	62	(329)
	<u>\$ (941,874)</u>	<u>\$ 384,469</u>
Change in fair value of embedded derivatives:		
Fixed index annuities - embedded derivatives	\$ (1,285,071)	\$ 652,642
Other changes in difference between policy benefit reserves computed using derivative accounting vs. long-duration contracts accounting	35,010	113,681
	<u>\$ (1,250,061)</u>	<u>\$ 766,323</u>

The amounts presented as "Other changes in difference between policy benefit reserves computed using derivative accounting vs. long-duration contracts accounting" represents the total change in the difference between policy benefit reserves for fixed index annuities computed under the derivative accounting standard and the long-duration contracts accounting standard at each balance sheet date, less the change in fair value of our fixed index annuities embedded derivatives that is presented as Level 3 liabilities in Note 2.

We have fixed index annuity products that guarantee the return of principal to the policyholder and credit interest based on a percentage of the gain in a specified market index. When fixed index annuity deposits are received, a portion of the deposit is used to purchase derivatives consisting of call options on the applicable market indices to fund the index credits due to fixed index annuity policyholders. Substantially all such call options are one year options purchased to match the funding requirements of the underlying policies. The call options are marked to fair value with the change in fair value included as a component of revenues. The change in fair value of derivatives includes the gains or losses recognized at the expiration of the option term and the changes in fair value for open positions. On the respective anniversary dates of the index policies, the index used to compute the index credit is reset and we purchase new call options to fund the next index credit. We manage the cost of these purchases through the terms of our fixed index annuities, which permit us to change caps, participation rates, and/or asset fees, subject to guaranteed minimums on each policy's anniversary date. By adjusting caps, participation rates, or asset fees, we can generally manage option costs except in cases where the contractual features would prevent further modifications.

Our strategy attempts to mitigate any potential risk of loss due to the nonperformance of the counterparties to these call options through a regular monitoring process which evaluates the program's effectiveness. We do not purchase call options that would require payment or collateral to another institution and our call options do not contain counterparty credit-risk-related contingent features. We are exposed to risk of loss in the event of nonperformance by the counterparties and, accordingly, we purchase our option contracts from multiple counterparties and evaluate the creditworthiness of all counterparties prior to purchase of the contracts. All non-exchange traded options have been purchased from nationally recognized financial institutions with a Standard and Poor's credit rating of A- or higher at the time of purchase and the maximum credit exposure to any single counterparty is subject to concentration limits. We also have credit support agreements that allow us to request the counterparty to provide collateral to us when the fair value of our exposure to the counterparty exceeds specified amounts.

The notional amount and fair value of our call options by counterparty and each counterparty's current credit rating are as follows:

Counterparty	Credit Rating (S&P)	Credit Rating (Moody's)	March 31, 2020		December 31, 2019	
			Notional Amount	Fair Value	Notional Amount	Fair Value
			(Dollars in thousands)			
Bank of America	A+	Aa2	\$ 2,025,121	\$ 5,291	\$ 2,680,543	\$ 80,692
Barclays	A	A1	6,074,493	61,394	5,753,868	217,536
Canadian Imperial Bank of Commerce	A+	Aa2	3,945,969	37,967	4,110,525	154,917
Citibank, N.A.	A+	Aa3	3,639,640	2,823	4,075,544	109,046
Credit Suisse	A+	A1	5,042,247	4,697	4,526,414	116,659
J.P. Morgan	A+	Aa2	5,012,755	7,464	4,703,234	151,651
Morgan Stanley	A+	A1	1,931,969	3,180	1,886,995	41,253
Royal Bank of Canada	AA-	A2	2,197,796	18,753	2,565,202	101,511
Societe Generale	A	A1	2,795,508	13,928	3,280,286	139,101
SunTrust	A	A2	2,212,338	16,438	2,051,229	74,910
Wells Fargo	A+	Aa2	4,942,226	34,628	4,221,408	163,520
Exchange traded			196,168	702	191,948	5,193
			\$ 40,016,230	\$ 207,265	\$ 40,047,196	\$ 1,355,989

As of March 31, 2020 and December 31, 2019, we held \$241.8 million and \$1.3 billion, respectively, of cash and cash equivalents and other investments from counterparties for derivative collateral, which is included in Other liabilities on our consolidated balance sheets. This derivative collateral limits the maximum amount of economic loss due to credit risk that we would incur if parties to the call options failed completely to perform according to the terms of the contracts to \$6.4 million and \$25.2 million at March 31, 2020 and December 31, 2019, respectively.

The future index credits on our fixed index annuities are treated as a "series of embedded derivatives" over the expected life of the applicable contract. We do not purchase call options to fund the index liabilities which may arise after the next policy anniversary date. We must value both the call options and the related forward embedded options in the policies at fair value.

We entered into an interest rate swap and interest rate caps to manage interest rate risk associated with the floating rate component on certain of our subordinated debentures. See Note 10 in our Annual Report on Form 10-K for the year ended December 31, 2019 for more information on our subordinated debentures. As of March 31, 2020, all of our floating rate subordinated debentures have been redeemed and the interest rate swap and interest rate caps have been terminated. The terms of the interest rate swap provided that we paid a fixed rate of interest and receive a floating rate of interest. The terms of the interest rate caps limited the three month LIBOR to 2.50%. The interest rate swap and caps were not effective hedges under accounting guidance for derivative instruments and hedging activities. Therefore, we recorded the interest rate swap and caps at fair value and any net cash payments received or paid were included in the change in fair value of derivatives in the unaudited consolidated statements of operations.

6. Notes Payable and Amounts Due Under Repurchase Agreements

Notes payable includes the following:

	March 31, 2020	December 31, 2019
(Dollars in thousands)		
Senior notes due 2027		
Principal	\$ 500,000	\$ 500,000
Unamortized debt issue costs	(4,479)	(4,607)
Unamortized discount	(270)	(277)
	<u>\$ 495,251</u>	<u>\$ 495,116</u>

On June 16, 2017, we issued \$500 million aggregate principal amount of senior unsecured notes due 2027 which bear interest at 5.0% per year and will mature on June 15, 2027 (the "2027 Notes"). The 2027 Notes were issued at a \$0.3 million discount, which is being amortized over the term of the 2027 Notes using the effective interest method. Contractual interest is payable semi-annually in arrears each June 15th and December 15th. The initial transaction fees and costs totaling \$5.8 million were capitalized as deferred financing costs and are being amortized over the term of the 2027 Notes using the effective interest method.

As part of our investment strategy, we enter into securities repurchase agreements (short-term collateralized borrowings). When we do borrow cash on these repurchase agreements, we pledge collateral in the form of debt securities with fair values approximately equal to the amount due and we use the cash to purchase debt securities ahead of the time we collect the cash from selling annuity policies to avoid a lag between the investment of funds and the obligation to credit interest to policyholders. We earn investment income on the securities purchased with these borrowings at a rate in excess of the cost of these borrowings. Such borrowings averaged \$24.6 million and \$89.2 million and the maximum amount borrowed was \$186.4 million and \$243.6 million during the three months ended March 31, 2020 and 2019, respectively. The weighted average interest rate on amounts due under repurchase agreements was 1.51% and 2.67% for the three months ended March 31, 2020 and 2019, respectively.

7. Commitments and Contingencies

We are occasionally involved in litigation, both as a defendant and as a plaintiff. In addition, state and federal regulatory bodies, such as state insurance departments, the Securities and Exchange Commission ("SEC") and the Department of Labor, regularly make inquiries and conduct examinations or investigations concerning our compliance with, among other things, insurance laws, securities laws and the Employee Retirement Income Security Act of 1974, as amended.

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 is developing we, in conjunction with outside counsel, evaluate on an ongoing basis whether the matter presents a loss contingency that meets conditions indicating the need for accrual and/or disclosure, and if not, the matter will continue to be monitored for further developments. If and when the loss contingency related to litigation or regulatory matters is deemed to be both probable and estimable, we will establish an accrued liability with respect to that matter and will continue to monitor the matter for further developments that may affect the amount of the accrued liability.

There can be no assurance that any pending or future litigation will not have a material adverse effect on our business, financial condition, or results of operations.

In addition to our commitments to fund mortgage loans, we have unfunded commitments at March 31, 2020 to limited partnerships of \$41.4 million and to fixed maturity securities of \$102.7 million.

8. Earnings (Loss) Per Common Share and Stockholders' Equity

Earnings (Loss) Per Common Share

The following table sets forth the computation of earnings (loss) per common share and earnings (loss) per common share - assuming dilution:

	Three Months Ended March 31,	
	2020	2019
(Dollars in thousands, except per share data)		
Numerator:		
Net income (loss) available to common stockholders - numerator for earnings (loss) per common share	\$ 236,336	\$ (30,010)
Denominator:		
Weighted average common shares outstanding	91,644,315	90,883,254
Effect of dilutive securities:		
Stock options and deferred compensation agreements	137,289	455,001
Restricted stock and restricted stock units	239,475	405,504
Denominator for earnings (loss) per common share - assuming dilution	92,021,079	91,743,759
Earnings (loss) per common share	\$ 2.58	\$ (0.33)
Earnings (loss) per common share - assuming dilution	\$ 2.57	\$ (0.33)

During the three months ended March 31, 2020, there were 50,000 options to purchase shares of our common stock outstanding, with an exercise price of \$26.70, excluded from the computation of diluted earnings (loss) per common share. There were no options to purchase shares of our common stock outstanding excluded from the computation of diluted earnings (loss) per common share during the three months ended March 31, 2019, as the exercise price of all options outstanding was less than the average market price of our common shares for those periods.

Stockholders' Equity

On November 21, 2019 we issued 16,000 shares of 5.95% Fixed-Rate Reset Non-Cumulative Preferred Stock, Series A (the "preferred stock") with a \$1.00 par value per share and a liquidation preference of \$25,000 per share, for aggregate net proceeds of \$388.9 million. We used a portion of the proceeds to redeem all of our floating rate subordinated debentures.

Dividends on the preferred stock are payable on a non-cumulative basis only when, as and if declared, quarterly in arrears on the first day of March, June, September and December of each year, commencing March 1, 2020. On March 1, 2020, we paid dividends totaling \$6.6 million on the preferred stock. The preferred stock ranks senior to our common stock with respect to dividends, to the extent declared, and in liquidation, to the extent of the liquidation preference. The preferred stock is not subject to any mandatory redemption, sinking fund, retirement fund, purchase fund or similar provisions.

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

Management's discussion and analysis reviews our unaudited consolidated financial position at March 31, 2020, and the unaudited consolidated results of operations for the three month periods ended March 31, 2020 and 2019, and where appropriate, factors that may affect future financial performance. This analysis should be read in conjunction with our unaudited consolidated financial statements and notes thereto appearing elsewhere in this Form 10-Q, and the audited consolidated financial statements, notes thereto and selected consolidated financial data appearing in our Annual Report on Form 10-K for the year ended December 31, 2019. Interim operating results for the three months ended March 31, 2020 are not necessarily indicative of the results expected for the entire year, particularly in light of the material risks and uncertainties surrounding the spread of COVID-19 and the impact it may have on our business, results of operations and financial condition. Preparation of financial statements requires use of management estimates and assumptions. Our estimates and assumptions could change in the future as more information becomes known about the impact of COVID-19.

Cautionary Statement Regarding Forward-Looking Information

All statements, trend analyses and other information contained in this report and elsewhere (such as in filings by us with the SEC, press releases, presentations by us or our management or oral statements) relative to markets for our products and trends in our operations or financial results, as well as other statements including words such as "anticipate", "believe", "plan", "estimate", "expect", "intend", and other similar expressions, constitute forward-looking statements. We caution that these statements may and often do vary from actual results and the differences between these statements and actual results can be material. Accordingly, we cannot assure you that actual results will not differ materially from those expressed or implied by the forward-looking statements. Factors that could contribute to these differences include, among other things:

- general economic conditions and other factors, including prevailing interest rate levels and stock and credit market performance which may affect (among other things) our ability to sell our products, our ability to access capital resources and the costs associated therewith, the fair value of our investments, which could result in credit losses, and certain liabilities, and the lapse rate and profitability of policies;
- major public health issues, and specifically the COVID-19 pandemic and the resulting impacts on economic conditions and financial markets;
- customer response to new products and marketing initiatives;
- changes in Federal income tax laws and regulations which may affect the relative income tax advantages of our products;
- increasing competition in the sale of fixed annuities;
- regulatory changes or actions, including those relating to regulation of financial services affecting (among other things) bank sales and underwriting of insurance products and regulation of the sale, underwriting and pricing of products; and
- the risk factors or uncertainties listed from time to time in our filings with the SEC.

For a detailed discussion of these and other factors that might affect our performance, see Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2019 and Item 1A of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2020.

Our Business and Profitability

We specialize in the sale of individual annuities (primarily fixed index deferred annuities). Under U.S. GAAP, premium collections for deferred annuities are reported as deposit liabilities instead of as revenues. Similarly, cash payments to policyholders are reported as decreases in the liabilities for policyholder account balances and not as expenses. Sources of revenues for products accounted for as deposit liabilities are net investment income, surrender charges assessed against policy withdrawals and fees deducted from policyholder account balances for lifetime income benefit riders, net realized gains (losses) on investments and changes in fair value of derivatives. Components of expenses for products accounted for as deposit liabilities are interest sensitive and index product benefits (primarily interest credited to account balances and changes in the liability for lifetime income benefit riders), changes in fair value of embedded derivatives, amortization of deferred sales inducements and deferred policy acquisition costs, other operating costs and expenses and income taxes.

Our business model contemplates continued growth in invested assets and non-GAAP operating income while maintaining a high quality investment portfolio that will not experience significant credit losses. We are committed to maintaining a high quality investment portfolio with limited exposure to below investment grade securities and other riskier assets. Growth in invested assets is predicated on a continuation of our high sales achievements of the last five years while at the same time maintaining a high level of retention of the funds received.

Our profitability depends in large part upon:

- the amount of assets under our management,
- investment spreads we earn on our policyholder account balances,
- our ability to manage our investment portfolio to maximize returns and minimize risks such as interest rate changes and defaults or credit losses,
- our ability to appropriately price for lifetime income benefit riders offered on certain of our fixed rate and fixed index annuity policies,
- our ability to manage interest rates credited to policyholders and costs of the options purchased to fund the annual index credits on our fixed index annuities,
- our ability to manage the costs of acquiring new business (principally commissions paid to agents and distribution partners and bonuses credited to policyholders),
- our ability to manage our operating expenses, and
- income taxes.

The recent outbreak of the novel coronavirus (COVID-19), recognized as a pandemic by the World Health Organization, has created significant economic and financial turmoil both in the U.S. and around the world which has had a material effect on the global economy and financial markets and raised concerns of a global recession. At this time, it is not possible to predict how COVID-19 will impact the Company, our results of operations or our financial condition and liquidity. See Item 1A. Risk Factors of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2020 for a discussion of risk factors related to major public health issues, specifically the COVID-19 pandemic.

We moved decisively to first protect our employees and business partners and to pivot our operating platform to continue to provide industry leading levels of service to clients and producers, in a prolonged work from home environment. In addition, we increased our liquidity position and held \$1.3 billion of unencumbered cash as of March 31, 2020. Currently, most of our employees are working remotely with only operationally critical employees working at our offices in West Des Moines, Iowa.

COVID-19 has caused significant economic effects where we operate, including closures of many businesses deemed non-essential due to shelter-in-place, stay-at-home, travel limitations and other governmental regulations or self imposed social distancing practices. These actions have caused disruption to the distribution channels through which we sell our products, including independent agents, and their clients. It is currently unclear how long such COVID-19 related actions will last.

Life insurance companies are subject to the NAIC risk-based capital ("RBC") requirements and rating agencies utilize a form of RBC to partially determine capital strength of insurance companies. Our RBC ratio at December 31, 2019 was 372%, and our estimated RBC ratio at March 31, 2020 was 396%, on a proforma basis, after reflecting a \$200 million capital contribution made to American Equity Investment Life Insurance Company from American Equity Investment Life Holding Company on May 4, 2020.

We intend to manage our capitalization in normal economic conditions at a level that is consistent with a 400% RBC ratio; and allow it to drift downwards if necessary to approximately 320% RBC for reasons including, but not limited to, realized credit losses or temporary increases in required risk capital for ratings migrations. This level is intended to reflect a level that is consistent with the rating agencies expectations for capital adequacy ratios at different points in an economic cycle. This implies operating with a peak to trough swing whereby capital is absorbing risk at the low point of the economic cycle. As economic activity recovers, we would expect to grow capital adequacy back to or near the 400% RBC ratio level through a combination of earnings and balance sheet optimization actions while continuing to execute on our core business strategy.

On March 26, 2020, S&P affirmed its "A-" financial strength rating on American Equity Investment Life Insurance Company and its "BBB-" long-term issuer credit rating on American Equity Investment Life Holding Company, but revised its outlook to "negative" from "stable" on both its financial strength and long-term issuer credit ratings due to its expectation for credit deterioration under current stressed market conditions. On April 24, 2020, Fitch affirmed its "A-" financial strength rating on American Equity Investment Life Insurance Company and its life insurance subsidiaries, its "BBB" issuer default rating on American Equity Investment Life Holding Company and its "BBB-" senior unsecured debt ratings, but revised its outlook to "negative" from "stable" on its financial strength, issuer default and senior unsecured debt ratings due to disruption to economic activity and the financial markets from the COVID-19 pandemic.

Earnings from products accounted for as deposit liabilities are primarily generated from the excess of net investment income earned over the interest credited or the cost of providing index credits to the policyholder, or the "investment spread." Our investment spread is summarized as follows:

	Three Months Ended March 31,	
	2020	2019
Average yield on invested assets	4.36%	4.48%
Aggregate cost of money	1.72%	1.90%
Aggregate investment spread	2.64%	2.58%
Impact of:		
Investment yield - additional prepayment income	0.06%	0.01%
Cost of money benefit from over hedging	0.05%	0.02%

The cost of money for fixed index annuities and average crediting rates for fixed rate annuities are computed based upon policyholder account balances and do not include the impact of amortization of deferred sales inducements. See Critical Accounting Policies - Deferred Policy Acquisition Costs and Deferred Sales Inducements included in Management's Discussion and Analysis in our Annual Report on Form 10-K for the year ended December 31, 2019. With respect to our fixed index annuities, the cost of money includes the average crediting rate on amounts allocated to the fixed rate strategy and expenses we incur to fund the annual index credits. Proceeds received upon expiration of call options purchased to fund annual index credits are recorded as part of the change in fair value of derivatives, and are largely offset by an expense for interest credited to annuity policyholder account balances. See Critical Accounting Policies - Policy Liabilities for Fixed Index Annuities and Financial Condition - Derivative Instruments included in Management's Discussion and Analysis in our Annual Report on Form 10-K for the year ended December 31, 2019.

The current environment of low interest rates and low yields for investments with the credit quality we prefer presents a strong headwind to achieving our target rate for investment spread. Active management of policyholder crediting rates has continued to lower the aggregate cost of money. The most recent actions we began in January of 2020 to reduce caps and crediting rates on \$29.7 billion of policyholder funds were offset by a rise in option costs in March of 2020 as equity market volatility surged. Although option costs have decreased since March of 2020 as equity markets have become less volatile, the cost of options backing our S&P 500 participation rate strategies have remained high. Beginning in June, we will be reducing renewal participation rates on \$4.3 billion of policyholder funds. We continue to have flexibility to reduce our crediting rates if necessary and could decrease our cost of money by approximately 63 basis points if we reduce current rates to guaranteed minimums. Investment yields on fixed income securities purchased and commercial mortgage loans funded during the first quarter of 2020 and during most of 2019 were at average rates below the overall portfolio yield which has resulted in a decrease in the average yield on invested assets. In addition, the decline in yields on our floating rate investment portfolio as well as our decision to increase our cash and cash equivalent holdings during March of 2020 contributed to the decrease in the average yield on invested assets for the three months ended March 31, 2020 compared to the same period in 2019.

Results of Operations for the Three Months Ended March 31, 2020 and 2019

Annuity deposits by product type collected during the three months ended March 31, 2020 and 2019, were as follows:

	Three Months Ended March 31,	
	2020	2019
(Dollars in thousands)		
American Equity Investment Life Insurance Company:		
Fixed index annuities	\$ 586,063	\$ 1,027,658
Annual reset fixed rate annuities	2,331	3,448
Multi-year fixed rate annuities	369	148
Single premium immediate annuities	5,398	2,068
	594,161	1,033,322
Eagle Life Insurance Company:		
Fixed index annuities	106,502	177,480
Annual reset fixed rate annuities	41	127
Multi-year fixed rate annuities	4,149	25,568
	110,692	203,175
Consolidated:		
Fixed index annuities	692,565	1,205,138
Annual reset fixed rate annuities	2,372	3,575
Multi-year fixed rate annuities	4,518	25,716
Single premium immediate annuities	5,398	2,068
Total before coinsurance ceded	704,853	1,236,497
Coinsurance ceded	17,703	54,064
Net after coinsurance ceded	\$ 687,150	\$ 1,182,433

Annuity deposits before and after coinsurance ceded decreased 43% and 42%, respectively, during the first quarter of 2020 compared to the same period in 2019. The decrease in sales for the three months ended March 31, 2020 compared to the same period in 2019 was primarily due to our competitive position in the accumulation and guaranteed income markets as a result of competitive pressures within each of our distribution channels. We continue to face a challenging environment for sales of fixed index annuities due to a highly competitive market and until social distancing needs abate or producers find new ways to engage with clients, we would expect sales to remain subdued.

We coinsure 80% of the annuity deposits received from multi-year rate guaranteed annuities and 20% of certain fixed index annuities sold by Eagle Life Insurance Company ("Eagle Life") through broker/dealers and banks. The decrease in coinsurance ceded premiums was attributable to a decrease in multi-year rate guaranteed annuities and fixed index annuities sold by Eagle Life for the three months ended March 31, 2020 compared to the same period in 2019.

Net income (loss) available to common stockholders increased to \$236.3 million in the first quarter of 2020 compared to \$(30.0) million for the same period in 2019.

Net income, in general, has been positively impacted by the growth in the volume of business in force and the investment spread earned on this business. The average amount of annuity account balances outstanding (net of annuity liabilities ceded under coinsurance agreements) increased 4% to \$53.3 billion for the first quarter of 2020 compared to \$51.3 billion for the same period in 2019. Our investment spread measured in dollars was \$339.1 million for the first quarter of 2020 compared to \$308.8 million for the same period in 2019. Our investment spread has been negatively impacted by the extended low interest rate environment (see **Net investment income**). The impact of the extended low interest rate environment has been partially offset by a lower aggregate cost of money due to our continued active management of new business and renewal rates.

Net income and net income available to common stockholders for the three months ended March 31, 2020 were both impacted by a discrete tax item that provided a tax benefit of \$30.8 million related to the provision of the Coronavirus Aid, Relief, and Economic Security Act that allows net operating losses for 2018 through 2020 to be carried back to previous tax years in which a 35% statutory tax rate was in effect.

Net income (loss) is also impacted by the change in fair value of derivatives and embedded derivatives which fluctuates from period to period based upon changes in fair values of call options purchased to fund the annual index credits for fixed index annuities and changes in interest rates used to discount the embedded derivative liability. Net income for the three months ended March 31, 2020 was positively impacted by a net increase in the discount rates used to estimate the fair value of our embedded derivative liabilities, the impact of which was partially offset by increases in amortization of deferred policy acquisition costs and deferred sales inducements related to the change in fair value of derivatives and embedded derivatives. Net income (loss) for the three months ended March 31, 2019 was negatively impacted by decreases in the discount rates used to estimate the fair value of our embedded derivative liabilities, the impact of which was partially offset by decreases in amortization of deferred policy acquisition costs and deferred sales inducements related to the change in fair value of derivatives and embedded derivatives. See **Change in fair value of derivatives**, **Change in fair value of embedded derivatives**, **Amortization of deferred sales inducements** and **Amortization of deferred policy acquisition costs**.

Non-GAAP operating income available to common stockholders, a non-GAAP financial measure, increased to \$154.1 million in the first quarter of 2020 compared to \$89.4 million for the same period in 2019.

In addition to net income (loss), we have consistently utilized non-GAAP operating income available to common stockholders, a non-GAAP financial measure commonly used in the life insurance industry, as an economic measure to evaluate our financial performance. Non-GAAP operating income available to common stockholders equals net income (loss) available to common stockholders adjusted to eliminate the impact of items that fluctuate from quarter to quarter in a manner unrelated to core operations, and we believe measures excluding their impact are useful in analyzing operating trends. The most significant adjustments to arrive at non-GAAP operating income available to common stockholders eliminate the impact of fair value accounting for our fixed index annuity business and are not economic in nature but rather impact the timing of reported results. We believe the combined presentation and evaluation of non-GAAP operating income available to common stockholders together with net income (loss) available to common stockholders provides information that may enhance an investor's understanding of our underlying results and profitability.

Non-GAAP operating income available to common stockholders is not a substitute for net income (loss) available to common stockholders determined in accordance with GAAP. The adjustments made to derive non-GAAP operating income available to common stockholders are important to understand our overall results from operations and, if evaluated without proper context, non-GAAP operating income available to common stockholders possesses material limitations. As an example, we could produce a low level of net income available to common stockholders or a net loss available to common stockholders in a given period, despite strong operating performance, if in that period we experience significant net realized losses from our investment portfolio. We could also produce a high level of net income available to common stockholders in a given period, despite poor operating performance, if in that period we generate significant net realized gains from our investment portfolio. As an example of another limitation of non-GAAP operating income available to common stockholders, it does not include the decrease in cash flows expected to be collected as a result of credit losses on financial assets. Therefore, our management reviews net realized investment gains (losses) and analyses of our net investment income, including impacts related to credit losses, in connection with their review of our investment portfolio. In addition, our management examines net income (loss) available to common stockholders as part of their review of our overall financial results.

The adjustments made to net income (loss) available to common stockholders to arrive at non-GAAP operating income available to common stockholders for the three months ended March 31, 2020 and 2019 are set forth in the table that follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Reconciliation from net income (loss) available to common stockholders to non-GAAP operating income available to common stockholders:		
Net income (loss) available to common stockholders	\$ 236,336	\$ (30,010)
Adjustments to arrive at non-GAAP operating income available to common stockholders:		
Net realized gains/losses on financial assets, including credit losses	16,349	305
Change in fair value of derivatives and embedded derivatives - fixed index annuities	(120,454)	150,944
Change in fair value of derivatives - interest rate caps and swap	(848)	636
Income taxes	22,702	(32,473)
Non-GAAP operating income available to common stockholders	\$ 154,085	\$ 89,402

The amounts disclosed in the reconciliation above are presented net of related adjustments to amortization of deferred sales inducements and deferred policy acquisition costs where applicable.

The increase in Non-GAAP operating income available to common stockholders for the three months ended March 31, 2020 compared to the same period in 2019 was attributable to lower amortization of deferred policy acquisition costs and deferred sales inducements. The benefit from these items was partially offset by a greater increase in the liability for future benefits to be paid for lifetime income benefit riders. The decline in deferred policy acquisition cost and deferred sales inducement amortization and the increase in the liability for lifetime income benefit riders is consistent with the actuarial revisions made in the third quarter of 2019.

In addition, non-GAAP operating income available to common stockholders for the three months ended March 31, 2020 was impacted by a \$30.8 million tax benefit from a discrete tax item related to the Coronavirus Aid, Relief, and Economic Security Act. **See Net income (loss) available to common stockholders.**

Annuity product charges (surrender charges assessed against policy withdrawals and fees deducted from policyholder account balances for lifetime income benefit riders) increased 12% to \$59.5 million in the first quarter of 2020 compared to \$53.0 million for the same period in 2019. The components of annuity product charges are set forth in the table that follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Surrender charges	\$ 19,705	\$ 16,456
Lifetime income benefit riders (LIBR) fees	39,844	36,510
	<u>\$ 59,549</u>	<u>\$ 52,966</u>
Withdrawals from annuity policies subject to surrender charges	\$ 194,790	\$ 142,100
Average surrender charge collected on withdrawals subject to surrender charges	10.1%	11.6%
Fund values on policies subject to LIBR fees	\$ 5,195,486	\$ 4,969,957
Weighted average per policy LIBR fee	0.77%	0.73%

The increase in annuity product charges was attributable to increases in fees assessed for lifetime income benefit riders due to a larger volume of business in force subject to the fee and increases in the average fees being charged as compared to prior periods and to increases in surrender charges due to increases in withdrawals from annuity policies subject to surrender charges due to a larger volume of business in force and policyholder behavior, which were partially offset by lower average surrender charges collected on those withdrawals. See **Interest sensitive and index product benefits** below for corresponding expense recognized on lifetime income benefit riders.

Net investment income increased 3% to \$573.3 million in the first quarter of 2020 compared to \$558.4 million for the same period in 2019. The increase was principally attributable to the growth in our annuity business and corresponding increases in our invested assets. Average invested assets excluding derivative instruments (on an amortized cost basis) increased 5% to \$52.6 billion for the first quarter of 2020 compared to \$49.9 billion for the same period in 2019.

The average yield earned on average invested assets was 4.36% for the first quarter of 2020 compared to 4.48% for the same period in 2019. The decrease in average yield earned for the three months ended March 31, 2020 compared to the same period in 2019 was primarily attributable to investment of new premiums and portfolio cash flows during 2020 and 2019 at average rates below the overall portfolio yield. In addition, the decrease in average yield earned for the three months ended March 31, 2020 compared to the same period in 2019 was due to a decrease in investment income on our floating rate securities due to decreases in the average benchmark rates associated with these investments during the three months ended March 31, 2020 as compared to the same period in 2019 as well as an increase in the level of cash and cash equivalent holdings for the three months ended March 31, 2020 as compared to the same period in 2019. The average yield on fixed income securities purchased and commercial mortgage loans funded during the three months ended March 31, 2020 was 3.49%, compared to 4.69% for the same period in 2019.

Change in fair value of derivatives consists of call options purchased to fund annual index credits on fixed index annuities, and an interest rate swap and interest rate caps that hedge our floating rate subordinated debentures. The components of change in fair value of derivatives are as follows:

	Three Months Ended March 31,	
	2020	2019
(Dollars in thousands)		
Call options:		
Gain (loss) on option expiration	\$ 110,103	\$ (123,680)
Change in unrealized gains/losses	(1,052,039)	508,846
Interest rate swap	—	(368)
Interest rate caps	62	(329)
	<u>\$ (941,874)</u>	<u>\$ 384,469</u>

The differences between the change in fair value of derivatives between periods for call options are primarily due to the performance of the indices upon which our call options are based which impacts the fair values and changes in the fair values of those call options between periods. The change in unrealized gains/losses on call options for the three months ended March 31, 2020, reflects the impact from equity market declines in March of 2020 related to the economic uncertainty caused by the COVID-19 pandemic. A substantial portion of our call options are based upon the S&P 500 Index with the remainder based upon other equity and bond market indices. The range of index appreciation (after applicable caps, participation rates and asset fees) for options expiring during the three months ended March 31, 2020 and 2019 is as follows:

	Three Months Ended March 31,	
	2020	2019
S&P 500 Index		
Point-to-point strategy	0.0% - 17.4%	0.0% - 7.0%
Monthly average strategy	0.7% - 11.9%	0.0% - 6.2%
Monthly point-to-point strategy	0.0% - 14.0%	0.0% - 0.0%
Fixed income (bond index) strategies	0.0% - 10.2%	0.0% - 6.4%

The change in fair value of derivatives is also influenced by the aggregate cost of options purchased. The aggregate cost of options for the three months ended March 31, 2020 were lower than for the same period in 2019 as option costs generally decreased during 2019 and into 2020. The decrease in aggregate option costs was partially offset by an increase in the amount of fixed index annuities in force during the three months ended March 31, 2020 compared to the same period in 2019. The aggregate cost of options is also influenced by the amount of policyholder funds allocated to the various indices and market volatility which affects option pricing. See Critical Accounting Policies - Policy Liabilities for Fixed Index Annuities included in Management's Discussion and Analysis in our Annual Report on Form 10-K for the year ended December 31, 2019.

Net realized gains (losses) on investments, excluding credit losses on fixed maturity securities, available for sale include gains and losses on the sale of securities and other investments and impairment losses on mortgage loans on real estate which fluctuate from year to year due to changes in the interest rate and economic environment and the timing of the sale of investments, as well as gains (losses) recognized on real estate owned due to any sales and impairments on long-lived assets. See Note 3 to our unaudited consolidated financial statements for a detailed presentation of the types of investments that generated the gains (losses) and Financial Condition - Investments and Note 4 to our unaudited consolidated financial statements for discussion of allowance for credit losses recognized on mortgage loans on real estate.

During the three months ended March 31, 2020, securities were sold at gains as we looked to increase our cash and cash equivalent holdings in response to the COVID-19 pandemic. Securities sold at losses are generally due to our long-term fundamental concern with the issuers' ability to meet their future financial obligations or to improve our risk or duration profiles as they pertain to our asset liability management.

Credit losses on fixed maturity securities, available for sale were \$31.4 million for the three months ended March 31, 2020 compared to \$0.0 million for the same period in 2019. See Financial Condition - Credit Losses and Note 3 to our unaudited consolidated financial statements for additional discussion of credit losses recognized during the periods presented.

Interest sensitive and index product benefits increased 193% to \$400.2 million in the first quarter of 2020 compared to \$136.7 million for the same period in 2019. The components of interest sensitive and index product benefits are summarized as follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Index credits on index policies	\$ 278,940	\$ 55,925
Interest credited (including changes in minimum guaranteed interest for fixed index annuities)	52,011	49,218
Lifetime income benefit riders	69,268	31,531
	<u>\$ 400,219</u>	<u>\$ 136,674</u>

The increase in index credits was attributable to changes in the level of appreciation of the underlying indices (see discussion above under **Change in fair value of derivatives**) and the amount of funds allocated by policyholders to the respective index options. Total proceeds received upon expiration of the call options purchased to fund the annual index credits were \$285.3 million for the three months ended March 31, 2020, compared to \$58.5 million for the same period in 2019. The increase in benefits recognized for lifetime income benefit riders for the three months ended March 31, 2020 compared to the same period in 2019 was primarily due to the impact that assumption revisions made during the third quarter of 2019 had on the lifetime income benefit riders liability. Benefits recognized for lifetime income benefit riders also increased for the three months ended March 31, 2020 as compared to the same period in 2019 due to an increase in the number of policies with lifetime income benefit riders, which correlates to the increase in fees discussed in **Annuity product charges**.

The liability (net of coinsurance ceded) for lifetime income benefit riders was \$1.4 billion and \$1.3 billion at March 31, 2020 and December 31, 2019, respectively.

Amortization of deferred sales inducements, in general, has been increasing each period due to growth in our annuity business and the deferral of sales inducements incurred with respect to sales of premium bonus annuity products. Bonus products represented 77% and 80% of our net annuity account values at March 31, 2020 and March 31, 2019, respectively. The increases in amortization from these factors have been affected by amortization associated with fair value accounting for derivatives and embedded derivatives utilized in our fixed index annuity business and amortization associated with net realized gains (losses) on investments and credit losses on fixed maturity securities. Fair value accounting for derivatives and embedded derivatives utilized in our fixed index annuity business creates differences in the recognition of revenues and expenses from derivative instruments including the embedded derivative liabilities in our fixed index annuity contracts. The change in fair value of the embedded derivatives will not correspond to the change in fair value of the derivatives (purchased call options), because the purchased call options are one-year options while the options valued in the fair value of embedded derivatives cover the expected lives of the contracts which typically exceed ten years. The decrease in amortization of deferred sales inducements before gross profit adjustments for the three months ended March 31, 2020 compared to the same period in 2019 was primarily due to the impact that assumption revisions made during the third quarter of 2019 had on the pattern of amortization.

Amortization of deferred sales inducements is summarized as follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Amortization of deferred sales inducements before gross profit adjustments	\$ 43,908	\$ 68,803
Gross profit adjustments:		
Fair value accounting for derivatives and embedded derivatives	31,799	(35,387)
Net realized gains (losses) on investments and credit losses on fixed maturity securities	(2,116)	(107)
Amortization of deferred sales inducements after gross profit adjustments	<u>\$ 73,591</u>	<u>\$ 33,309</u>

Change in fair value of embedded derivatives includes changes in the fair value of our fixed index annuity embedded derivatives (see Note 5 to our unaudited consolidated financial statements). The components of change in fair value of embedded derivatives are as follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Fixed index annuities - embedded derivatives	\$ (1,285,071)	\$ 652,642
Other changes in difference between policy benefit reserves computed using derivative accounting vs. long-duration contracts accounting	35,010	113,681
	<u>\$ (1,250,061)</u>	<u>\$ 766,323</u>

The change in fair value of the fixed index annuity embedded derivatives resulted from (i) changes in the expected index credits on the next policy anniversary dates, which are related to the change in fair value of the call options acquired to fund those index credits discussed above in **Change in fair value of derivatives**; (ii) changes in the discount rates used in estimating our embedded derivative liabilities; and (iii) the growth in the host component of the policy liability. The amounts presented as "Other changes in difference between policy benefit reserves computed using derivative accounting vs. long-duration contracts accounting" represent the total change in the difference between policy benefit reserves for fixed index annuities computed under the derivative accounting standard and the long-duration contracts accounting standard at each balance sheet date, less the change in fair value of our fixed index annuities embedded derivative. See Critical Accounting Policies - Policy Liabilities for Fixed Index Annuities included in Management's Discussion and Analysis in our Annual Report on Form 10-K for the year ended December 31, 2019.

The primary reasons for the decrease in the change in fair value of the fixed index annuity embedded derivatives during the three months ended March 31, 2020 were decreases in the expected index credits on the next policy anniversary dates resulting from decreases in the fair value of the call options acquired to fund these index credits during the three months ended March 31, 2020 compared to increases in the expected index credits on the next policy anniversary dates resulting from increases in the fair value of the call options acquired to fund these index credits during the three months ended March 31, 2019 and an increase in the net discount rate for the three months ended March 31, 2020 compared to decreases in the discount rates for the same period of 2019. The discount rates used in estimating our embedded derivative liabilities fluctuate based on changes in the general level of interest rates and credit spreads. The decrease in fair value of call options for the three months ended March 31, 2020, reflects the impact from equity market declines in March of 2020 related to the economic uncertainty caused by the COVID-19 pandemic. The increase in the net discount rate for the three months ended March 31, 2020 consists of a decrease in treasury rates for the three months ended March 31, 2020 which was more than offset by a widening of credit spreads.

Amortization of deferred policy acquisition costs, in general, has been increasing each period due to the growth in our annuity business and the deferral of policy acquisition costs incurred with respect to sales of annuity products. The increases in amortization from these factors have been affected by amortization associated with fair value accounting for derivatives and embedded derivatives utilized in our fixed index annuity business and amortization associated with net realized gains (losses) on investments and credit losses on fixed maturity securities. As discussed above, fair value accounting for derivatives and embedded derivatives utilized in our fixed index annuity business creates differences in the recognition of revenues and expenses from derivative instruments including the embedded derivative liabilities in our fixed index annuity contracts. The decrease in amortization of deferred policy acquisition costs before gross profit adjustments for the three months ended March 31, 2020 compared to the same period in 2019 was primarily due to the impact that assumption revisions made during the third quarter of 2019 had on the pattern of amortization.

Amortization of deferred policy acquisition costs is summarized as follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Amortization of deferred policy acquisition costs before gross profit adjustments	\$ 66,256	\$ 100,071
Gross profit adjustments:		
Fair value accounting for derivatives and embedded derivatives	57,639	(54,789)
Net realized gains (losses) on investments and credit losses on fixed maturity securities	(3,193)	(150)
Amortization of deferred policy acquisition costs after gross profit adjustments	<u>\$ 120,702</u>	<u>\$ 45,132</u>

Other operating costs and expenses increased 12% to \$43.6 million in the first quarter of 2020 compared to \$39.0 million for the same period in 2019 and are summarized as follows:

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands)	
Salary and benefits	\$ 22,155	\$ 20,219
Risk charges	10,840	8,709
Other	10,631	10,051
Total other operating costs and expenses	<u>\$ 43,626</u>	<u>\$ 38,979</u>

Salary and benefits for the three months ended March 31, 2020 reflect an increase of \$1.8 million due to an increased number of employees related to our growth and an increase of \$0.7 million related to a stay bonus under a retirement and transition agreement with our former Chief Executive Officer and President offset by a decrease of \$0.5 million related to compensation costs that vary based on the Company's stock price compared to the same period in 2019.

The increase in risk charges expense for the three months ended March 31, 2020 compared to the same period in 2019 was due to an increase in the amount of excess regulatory reserves ceded to an unaffiliated reinsurer pursuant to a reinsurance agreement primarily as a result of the replacement of the previous agreement with a new agreement effective April 1, 2019. The impact from increasing the amount of excess regulatory reserves ceded was partially offset by a lower risk charge percentage in the new agreement. The excess regulatory reserves ceded at March 31, 2020 and 2019 were \$1,225.3 million and \$857.8 million, respectively.

Income tax expense (benefit) was \$27.2 million in the first quarter of 2020 compared to \$(9.5) million for the same period in 2019. The change in income tax expense (benefit) was primarily due to changes in income (loss) before income taxes. The effective income tax rates were 10.1% and 24.0% for the three months ended March 31, 2020 and 2019, respectively.

Income tax expense (benefit) and the resulting effective tax rate are based upon two components of income (loss) before income taxes ("pretax income") that are taxed at different tax rates. Life insurance income is generally taxed at an effective rate of approximately 21.6% reflecting the absence of state income taxes for substantially all of the states that the life insurance subsidiaries do business in. The income (loss) for the parent company and other non-life insurance subsidiaries (the "non-life insurance group") is generally taxed at an effective tax rate of 29.5% reflecting the combined federal / state income tax rates. The effective income tax rates resulting from the combination of the income tax provisions for the life / non-life sources of income (loss) vary from period to period based primarily on the relative size of pretax income (loss) from the two sources.

The effective tax rate for the three months ended March 31, 2020 was impacted by a discrete tax item that provided a tax benefit of \$30.8 million related to the provision of the Coronavirus Aid, Relief, and Economic Security Act that allows net operating losses for 2018 through 2020 to be carried back to previous tax years in which a 35% statutory tax rate was in effect. The effective income tax rate was also impacted by a discrete tax item related to share-based compensation that provided a tax benefit for the three months ended March 31, 2020 and 2019 of approximately \$0.4 million and \$1.0 million, respectively. The effective income tax rates excluding the impact of these discrete items were 21.6% and 21.4% for the three months ended March 31, 2020 and 2019, respectively.

Financial Condition

Investments

Our investment strategy is to maintain a predominantly investment grade fixed income portfolio, provide adequate liquidity to meet our cash obligations to policyholders and others and maximize current income and total investment return through active investment management. Consistent with this strategy, our investments principally consist of fixed maturity securities and mortgage loans on real estate.

Insurance statutes regulate the type of investments that our life subsidiaries are permitted to make and limit the amount of funds that may be used for any one type of investment. In light of these statutes and regulations and our business and investment strategy, we generally seek to invest in United States government and government-sponsored agency securities, corporate securities, residential and commercial mortgage backed securities, other asset backed securities and United States municipalities, states and territories securities rated investment grade by established NRSRO's or in securities of comparable investment quality, if not rated and commercial mortgage loans on real estate.

The composition of our investment portfolio is summarized as follows:

	March 31, 2020		December 31, 2019	
	Carrying Amount	Percent	Carrying Amount	Percent
(Dollars in thousands)				
Fixed maturity securities:				
United States Government full faith and credit	\$ 39,248	0.1%	\$ 161,765	0.3%
United States Government sponsored agencies	338,561	0.6%	625,020	1.1%
United States municipalities, states and territories	3,765,163	7.2%	4,527,671	7.9%
Foreign government obligations	198,396	0.4%	205,096	0.3%
Corporate securities	31,135,319	59.8%	32,536,839	57.2%
Residential mortgage backed securities	1,765,033	3.4%	1,575,664	2.8%
Commercial mortgage backed securities	5,296,112	10.2%	5,786,279	10.2%
Other asset backed securities	5,167,035	9.9%	6,162,156	10.8%
Total fixed maturity securities	47,704,867	91.6%	51,580,490	90.6%
Mortgage loans on real estate	3,668,625	7.0%	3,448,793	6.1%
Derivative instruments	207,265	0.4%	1,355,989	2.4%
Other investments	497,598	1.0%	492,301	0.9%
	<u>\$ 52,078,355</u>	<u>100.0%</u>	<u>\$ 56,877,573</u>	<u>100.0%</u>

Fixed Maturity Securities

Our fixed maturity security portfolio is managed to minimize risks such as interest rate changes and defaults or impairments while earning a sufficient and stable return on our investments. The largest portion of our fixed maturity securities are in investment grade (NAIC designation 1 or 2) publicly traded or privately placed corporate securities.

A summary of our fixed maturity securities by NRSRO ratings is as follows:

Rating Agency Rating	March 31, 2020		December 31, 2019	
	Carrying Amount	Percent of Fixed Maturity Securities	Carrying Amount	Percent of Fixed Maturity Securities
(Dollars in thousands)				
Aaa/Aa/A	\$ 28,334,402	59.4%	\$ 30,662,644	59.4%
Baa	18,386,135	38.5%	19,833,309	38.4%
Total investment grade	46,720,537	97.9%	50,495,953	97.8%
Ba	770,834	1.6%	821,902	1.6%
B	73,263	0.2%	81,407	0.2%
Caa	63,808	0.1%	95,676	0.2%
Ca and lower	76,425	0.2%	85,552	0.2%
Total below investment grade	984,330	2.1%	1,084,537	2.2%
	<u>\$ 47,704,867</u>	<u>100.0%</u>	<u>\$ 51,580,490</u>	<u>100.0%</u>

The NAIC's Securities Valuation Office ("SVO") is responsible for the day-to-day credit quality assessment and the valuation of fixed maturity securities owned by state regulated insurance companies. The purpose of such assessment and valuation is for determining regulatory capital requirements and regulatory reporting. Insurance companies report ownership to the SVO when such securities are eligible for regulatory filings. The SVO conducts credit analysis on these securities for the purpose of assigning a NAIC designation and/or unit price. Typically, if a security has been rated by an NRSRO, the SVO utilizes that rating and assigns an NAIC designation based upon the following system:

NAIC Designation	NRSRO Equivalent Rating
1	Aaa/Aa/A
2	Baa
3	Ba
4	B
5	Caa
6	Ca and lower

For most of the bonds held in our portfolio the NAIC designation matches the NRSRO equivalent rating. However, for certain loan-backed and structured securities, as defined by the NAIC, the NAIC rating is not always equivalent to the NRSRO rating presented in the previous table. The NAIC has adopted revised rating methodologies for certain loan-backed and structured securities comprised of non-agency residential mortgage backed securities ("RMBS") and commercial mortgage backed securities ("CMBS"). The NAIC's objective with the revised rating methodologies for these structured securities is to increase the accuracy in assessing expected losses and use the improved assessment to determine a more appropriate capital requirement for such structured securities. The revised methodologies reduce regulatory reliance on rating agencies and allow for greater regulatory input into the assumptions used to estimate expected losses from structured securities.

The use of this process by the SVO may result in certain non-agency RMBS and CMBS being assigned an NAIC designation that is higher than the equivalent NRSRO rating. The NAIC designations for non-agency RMBS and CMBS are based on security level expected losses as modeled by an independent third party (engaged by the NAIC) and the statutory carrying value of the security, including any purchase discounts or impairment charges previously recognized. Evaluation of non-agency RMBS and CMBS held by insurers using the NAIC rating methodologies is performed on an annual basis.

As stated previously, our fixed maturity security portfolio is managed to minimize risks such as defaults or impairments while earning a sufficient and stable return on our investments. Our strategy has been to invest primarily in investment grade fixed maturity securities. Investment grade is NAIC 1 and 2 securities and Baa3/BBB- and better securities on the NRSRO scale. This strategy meets the objective of minimizing risk while also managing asset capital charges on a regulatory capital basis.

A summary of our fixed maturity securities by NAIC designation is as follows:

NAIC Designation	March 31, 2020				December 31, 2019			
	Amortized Cost	Fair Value	Carrying Amount	Percent of Total Carrying Amount	Amortized Cost	Fair Value	Carrying Amount	Percent of Total Carrying Amount
	(Dollars in thousands)				(Dollars in thousands)			
1	\$ 26,309,850	\$ 27,739,779	\$ 27,739,779	58.2%	\$ 27,781,525	\$ 30,122,657	\$ 30,122,657	58.4%
2	19,582,082	18,999,760	18,999,760	39.8%	19,278,355	20,316,911	20,316,911	39.4%
3	1,167,772	838,628	838,628	1.8%	1,001,087	977,191	977,191	1.9%
4	128,826	104,090	104,090	0.2%	114,497	112,534	112,534	0.2%
5	60,550	18,433	18,433	—%	57,952	45,205	45,205	0.1%
6	4,983	4,177	4,177	—%	5,530	5,992	5,992	—%
	<u>\$ 47,254,063</u>	<u>\$ 47,704,867</u>	<u>\$ 47,704,867</u>	<u>100.0%</u>	<u>\$ 48,238,946</u>	<u>\$ 51,580,490</u>	<u>\$ 51,580,490</u>	<u>100.0%</u>

The amortized cost and fair value of fixed maturity securities at March 31, 2020, by contractual maturity, are presented in Note 3 to our unaudited consolidated financial statements in this Form 10-Q, which is incorporated by reference in this Item 2.

Unrealized Losses

The amortized cost and fair value of fixed maturity securities that were in an unrealized loss position were as follows:

	Number of Securities	Amortized Cost	Unrealized Losses, Net of Allowance	Allowance for Credit Losses	Fair Value
(Dollars in thousands)					
March 31, 2020					
Fixed maturity securities, available for sale:					
United States municipalities, states and territories	27	\$ 213,421	\$ (4,130)	\$ —	\$ 209,291
Foreign government obligations	5	64,544	(4,465)	—	60,079
Corporate securities:					
Finance, insurance and real estate	188	2,083,928	(110,076)	—	1,973,852
Manufacturing, construction and mining	131	1,246,514	(67,328)	—	1,179,186
Utilities and related sectors	144	1,516,371	(98,041)	—	1,418,330
Wholesale/retail trade	90	840,207	(108,207)	—	732,000
Services, media and other	357	3,338,716	(444,186)	(28,332)	2,866,198
Residential mortgage backed securities	102	775,541	(24,605)	—	750,936
Commercial mortgage backed securities	587	4,384,310	(310,897)	—	4,073,413
Other asset backed securities	844	5,378,855	(1,193,015)	—	4,185,840
	2,475	\$ 19,842,407	\$ (2,364,950)	\$ (28,332)	\$ 17,449,125
December 31, 2019					
Fixed maturity securities, available for sale:					
United States Government full faith and credit	5	\$ 144,678	\$ (96)	\$ —	\$ 144,582
United States Government sponsored agencies	6	374,961	(4,785)	—	370,176
United States municipalities, states and territories	42	296,812	(8,250)	—	288,562
Corporate securities:					
Finance, insurance and real estate	38	399,043	(9,529)	—	389,514
Manufacturing, construction and mining	20	216,229	(9,990)	—	206,239
Utilities and related sectors	32	397,116	(11,212)	—	385,904
Wholesale/retail trade	12	194,815	(11,162)	—	183,653
Services, media and other	65	631,587	(40,366)	—	591,221
Residential mortgage backed securities	34	227,427	(3,691)	—	223,736
Commercial mortgage backed securities	127	810,505	(13,783)	—	796,722
Other asset backed securities	652	4,306,620	(179,191)	—	4,127,429
	1,033	\$ 7,999,793	\$ (292,055)	\$ —	\$ 7,707,738

The increase in unrealized losses from December 31, 2019 to March 31, 2020 was primarily due to credit markets experiencing a shock in March as a result of the COVID-19 pandemic. While treasury yields declined during the three months ended March 31, 2020, credit spreads widened dramatically. The widening of credit spreads in most cases was driven by a flight to quality into treasury securities due to illiquidity and uncertainty of the impact of the COVID-19 pandemic on the economy. The 10-year U.S. Treasury yields at March 31, 2020 and December 31, 2019 were 0.70% and 1.92%, respectively. The 30-year U.S. Treasury yields at March 31, 2020 and December 31, 2019 were 1.35% and 2.39%, respectively.

The following table sets forth the composition by credit quality (NAIC designation) of fixed maturity securities with gross unrealized losses:

NAIC Designation	Carrying Value of Securities with Gross Unrealized Losses	Percent of Total	Gross Unrealized Losses (1)	Percent of Total
(Dollars in thousands)				
March 31, 2020				
1	\$ 8,361,980	47.9%	\$ (710,624)	30.0%
2	8,191,448	47.0%	(1,281,317)	54.2%
3	790,563	4.5%	(330,711)	14.0%
4	87,938	0.5%	(23,145)	1.0%
5	14,216	0.1%	(17,580)	0.7%
6	2,980	—%	(1,573)	0.1%
	<u>\$ 17,449,125</u>	<u>100.0%</u>	<u>\$ (2,364,950)</u>	<u>100.0%</u>
December 31, 2019				
1	\$ 3,580,578	46.4%	\$ (79,638)	27.3%
2	3,412,695	44.3%	(151,826)	52.0%
3	613,240	8.0%	(38,216)	13.1%
4	74,027	1.0%	(8,575)	2.9%
5	26,998	0.3%	(13,437)	4.6%
6	200	—%	(363)	0.1%
	<u>\$ 7,707,738</u>	<u>100.0%</u>	<u>\$ (292,055)</u>	<u>100.0%</u>

(1) Gross unrealized losses have been adjusted to reflect the allowance for credit loss as of March 31, 2020 of \$28.3 million.

Our investments' gross unrealized losses and fair value, aggregated by investment category and length of time that individual securities (consisting of 2,475 and 1,033 securities, respectively) have been in a continuous unrealized loss position at March 31, 2020 and December 31, 2019, along with a description of the factors causing the unrealized losses is presented in Note 3 to our unaudited consolidated financial statements in this Form 10-Q, which is incorporated by reference in this Item 2.

The amortized cost and fair value of fixed maturity securities in an unrealized loss position and the number of months in a continuous unrealized loss position (fixed maturity securities that carry an NRSRO rating of BBB/Baa or higher are considered investment grade) were as follows:

	Number of Securities	Amortized Cost, Net of Allowance (1)	Fair Value	Gross Unrealized Losses, Net of Allowance (1)
(Dollars in thousands)				
March 31, 2020				
Fixed maturity securities, available for sale:				
Investment grade:				
Less than six months	1,858	\$ 15,516,793	\$ 14,275,065	\$ (1,241,728)
Six months or more and less than twelve months	18	152,147	126,703	(25,444)
Twelve months or greater	401	2,976,402	2,234,014	(742,388)
Total investment grade	2,277	18,645,342	16,635,782	(2,009,560)
Below investment grade:				
Less than six months	83	476,779	377,044	(99,735)
Six months or more and less than twelve months	15	46,421	28,698	(17,723)
Twelve months or greater	100	645,533	407,601	(237,932)
Total below investment grade	198	1,168,733	813,343	(355,390)
	2,475	\$ 19,814,075	\$ 17,449,125	\$ (2,364,950)
December 31, 2019				
Fixed maturity securities, available for sale:				
Investment grade:				
Less than six months	352	\$ 2,960,557	\$ 2,911,909	\$ (48,648)
Six months or more and less than twelve months	46	290,674	282,347	(8,327)
Twelve months or greater	513	4,003,478	3,829,474	(174,004)
Total investment grade	911	7,254,709	7,023,730	(230,979)
Below investment grade:				
Less than six months	11	32,607	31,695	(912)
Six months or more and less than twelve months	8	35,080	33,268	(1,812)
Twelve months or greater	103	677,397	619,045	(58,352)
Total below investment grade	122	745,084	684,008	(61,076)
	1,033	\$ 7,999,793	\$ 7,707,738	\$ (292,055)

(1) Amortized cost and gross unrealized losses have been adjusted to reflect the allowance for credit loss as of March 31, 2020 of \$28.3 million.

The amortized cost and fair value of fixed maturity securities (excluding United States Government and United States Government sponsored agency securities) segregated by investment grade (NRSRO rating of BBB/Baa or higher) and below investment grade that had unrealized losses greater than 20% and the number of months in a continuous unrealized loss position were as follows:

	Number of Securities	Amortized Cost, Net of Allowance (1)	Fair Value	Gross Unrealized Losses, Net of Allowance (1)
(Dollars in thousands)				
March 31, 2020				
Investment grade:				
Less than six months	522	\$ 3,777,984	\$ 2,739,639	\$ (1,038,345)
Six months or more and less than twelve months	—	—	—	—
Twelve months or greater	—	—	—	—
Total investment grade	522	3,777,984	2,739,639	(1,038,345)
Below investment grade:				
Less than six months	109	709,611	411,757	(297,854)
Six months or more and less than twelve months	1	—	—	—
Twelve months or greater	4	27,073	12,053	(15,020)
Total below investment grade	114	736,684	423,810	(312,874)
	636	\$ 4,514,668	\$ 3,163,449	\$ (1,351,219)
December 31, 2019				
Investment grade:				
Less than six months	—	\$ —	\$ —	\$ —
Six months or more and less than twelve months	—	—	—	—
Twelve months or greater	—	—	—	—
Total investment grade	—	—	—	—
Below investment grade:				
Less than six months	—	—	—	—
Six months or more and less than twelve months	1	2,640	1,755	(885)
Twelve months or greater	4	53,800	35,541	(18,259)
Total below investment grade	5	56,440	37,296	(19,144)
	5	\$ 56,440	\$ 37,296	\$ (19,144)

(1) Amortized cost and gross unrealized losses have been adjusted to reflect the allowance for credit loss as of March 31, 2020 of \$28.3 million.

The amortized cost and fair value of fixed maturity securities, by contractual maturity, that were in an unrealized loss position are shown below. Actual maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. All of our mortgage and other asset backed securities provide for periodic payments throughout their lives, and are shown below as a separate line.

	Available for sale	
	Amortized Cost	Fair Value
(Dollars in thousands)		
March 31, 2020		
Due in one year or less	\$ 53,323	\$ 52,088
Due after one year through five years	1,918,695	1,775,757
Due after five years through ten years	3,592,174	3,324,521
Due after ten years through twenty years	1,852,529	1,641,882
Due after twenty years	1,886,980	1,644,688
	9,303,701	8,438,936
Residential mortgage backed securities	775,541	750,936
Commercial mortgage backed securities	4,384,310	4,073,413
Other asset backed securities	5,378,855	4,185,840
	<u>\$ 19,842,407</u>	<u>\$ 17,449,125</u>
December 31, 2019		
Due in one year or less	\$ 5,073	\$ 5,071
Due after one year through five years	278,165	273,869
Due after five years through ten years	555,200	544,687
Due after ten years through twenty years	1,041,474	1,008,487
Due after twenty years	775,329	727,737
	2,655,241	2,559,851
Residential mortgage backed securities	227,427	223,736
Commercial mortgage backed securities	810,505	796,722
Other asset backed securities	4,306,620	4,127,429
	<u>\$ 7,999,793</u>	<u>\$ 7,707,738</u>

International Exposure

We hold fixed maturity securities with international exposure. As of March 31, 2020, 24% of the carrying value of our fixed maturity securities was comprised of corporate debt securities of issuers based outside of the United States and debt securities of foreign governments. All of our fixed maturity securities with international exposure are denominated in U.S. dollars. Our investment professionals analyze each holding for credit risk by economic and other factors of each country and industry. The following table presents our international exposure in our fixed maturity portfolio by country or region:

	March 31, 2020		
	Amortized Cost	Carrying Amount/ Fair Value	Percent of Total Carrying Amount
(Dollars in thousands)			
GIIPS (1)	\$ 251,393	\$ 260,759	0.5%
Asia/Pacific	436,562	473,628	1.0%
Non-GIIPS Europe	3,069,045	3,183,740	6.7%
Latin America	276,707	273,839	0.6%
Non-U.S. North America	1,419,297	1,414,620	3.0%
Australia & New Zealand	1,140,439	1,144,352	2.4%
Other	5,596,935	4,512,832	9.4%
	<u>\$ 12,190,378</u>	<u>\$ 11,263,770</u>	<u>23.6%</u>

(1) Greece, Ireland, Italy, Portugal and Spain ("GIIPS"). All of our exposure in GIIPS are corporate securities with issuers domiciled in these countries. None of our foreign government obligations were held in any of these countries.

All of the securities presented in the table above are investment grade (NAIC designation of either 1 or 2), except for the following:

	March 31, 2020	
	Amortized Cost	Carrying Amount/ Fair Value
	(Dollars in thousands)	
GIIPS	\$ 14,540	\$ 14,746
Asia/Pacific	11,000	10,342
Non-GIIPS Europe	97,731	71,520
Latin America	57,542	52,137
Non-U.S. North America	54,305	37,018
Other	434,398	269,263
	<u>\$ 669,516</u>	<u>\$ 455,026</u>

Watch List

At each balance sheet date, we identify invested assets which have characteristics (i.e., significant unrealized losses compared to amortized cost and industry trends) creating uncertainty as to our future assessment of credit losses. As part of this assessment, we review not only a change in current price relative to its amortized cost but the issuer's current credit rating and the probability of full recovery of principal based upon the issuer's financial strength. Specifically, for corporate issues we evaluate the financial stability and quality of asset coverage for the securities relative to the term to maturity for the issues we own. Generally, a security which we believe has the possibility of a loss of principal will be included on a list which is referred to as our watch list. We exclude our residential and commercial mortgage backed securities as we monitor all of our residential and commercial mortgage backed securities on a quarterly basis for changes in default rates, loss severities and expected cash flows for the purpose of assessing potential credit losses to be recognized in operations. At March 31, 2020, the amortized cost and fair value of securities on the watch list (all fixed maturity securities) are as follows:

General Description	Number of Securities	Amortized Cost	Allowance for Credit Losses	Amortized Cost, Net of Allowance	Unrealized Gains (Losses), Net of Allowance	Fair Value	Months in Continuous Unrealized Loss Position	Months Unrealized Losses Greater Than 20%
(Dollars in thousands)								
Below investment grade								
Corporate securities:								
Energy	6	\$ 59,078	\$ (28,332)	\$ 30,746	\$ (20,009)	\$ 10,737	1 - 67	1 - 58
Other asset backed securities:								
Financials	1	430	—	430	759	1,189	—	—
	<u>7</u>	<u>\$ 59,508</u>	<u>\$ (28,332)</u>	<u>\$ 31,176</u>	<u>\$ (19,250)</u>	<u>\$ 11,926</u>		

We expect to recover the unrealized losses, net of allowances, as we did not have the intent to sell and it was not more likely than not that we would be required to sell these securities prior to recovery of the amortized cost basis, net of allowances. Our analysis of these securities and their credit performance at March 31, 2020 is as follows:

Corporate securities:

Energy: The decline in the values of these securities, which are all securities related to domestic oil drillers, relates to the continued decline in oil prices which has caused credit metrics to continue to be under pressure. As a result of our process for identifying securities that could have credit losses, we established an allowance for credit losses on these securities during the three months ended March 31, 2020.

Other asset backed securities:

Financials: The decline in value of this security relates directly to the decline in oil prices and the financial stability of its operator. The issuer has direct exposure to the oil market as its primary business is deep water drilling. As oil prices have remained low, the operator of the deep water vessel has experienced financial pressure on its balance sheet and similar vessel sales have been at softer valuations. We recognized a credit loss on this security during the three months ended March 31, 2020.

Credit Losses

We have a policy and process to identify securities in our investment portfolio for which we recognize credit loss. See Note 3 to our unaudited consolidated financial statements.

During the three months ended March 31, 2020, we recognized credit losses of \$28.3 million on corporate securities with exposure to the offshore drilling industry as discussed above. In addition, during the three months ended March 31, 2020 we recognized credit losses of \$2.5 million on commercial mortgage backed securities due to our intent to sell the securities and \$0.5 million on an asset backed security due to our intent to sell.

We did not recognize any other than temporary impairments during the three months ended March 31, 2019.

Several factors led us to believe that full recovery of amortized cost is not expected on the securities for which we recognized credit losses. A discussion of these factors, our policy and process to identify securities that could potentially have credit loss is presented in Note 3 to our unaudited consolidated financial statements in this Form 10-Q, which is incorporated by reference in this Item 2.

Mortgage Loans on Real Estate

Our commercial mortgage loan portfolio consists of mortgage loans collateralized by the related properties and diversified as to property type, location and loan size. Our mortgage lending policies establish limits on the amount that can be loaned to one borrower and other criteria to attempt to reduce the risk of default. Our commercial mortgage loans on real estate are reported at amortized cost, net of loan loss allowances and deferred prepayment fees. At March 31, 2020 and December 31, 2019, the largest principal amount outstanding for any single mortgage loan was \$35.0 million and \$28.5 million, respectively, and the average loan size was \$4.5 million and \$4.4 million, respectively. In addition, the average loan to value ratio for the overall portfolio was 54.5% and 54.3% at March 31, 2020 and December 31, 2019, respectively, based upon the underwriting and appraisal at the time the loan was made. This loan to value is indicative of our conservative underwriting policies and practices for making commercial mortgage loans and may not be indicative of collateral values at the current reporting date. Our current practice is to only obtain market value appraisals of the underlying collateral at the inception of the loan unless we identify indicators of impairment in our ongoing analysis of the portfolio, in which case, we either calculate a value of the collateral using a capitalization method or obtain a third party appraisal of the underlying collateral. The commercial mortgage loan portfolio is summarized by geographic region and property type in Note 4 to our unaudited consolidated financial statements in this Form 10-Q, incorporated by reference in this Item 2.

In the normal course of business, we commit to fund commercial mortgage loans up to 90 days in advance. At March 31, 2020, we had commitments to fund commercial mortgage loans totaling \$247.5 million, with interest rates ranging from 3.25% to 5.30%. During 2020 and 2019, due to historically low interest rates, the commercial mortgage loan industry has been very competitive. This competition has resulted in a number of borrowers refinancing with other lenders. For the three months ended March 31, 2020, we received \$45.0 million in cash for loans being paid in full compared to \$31.4 million for the three months ended March 31, 2019. Some of the loans being paid off have either reached their maturity or are nearing maturity; however, some borrowers are paying the prepayment fee and refinancing at a lower rate.

See Note 4 to our unaudited consolidated financial statements, incorporated by reference, for a presentation of our specific and general loan loss allowances, impaired loans, foreclosure activity and troubled debt restructure analysis.

We have a process by which we evaluate the credit quality of each of our commercial mortgage loans. This process utilizes each loan's loan-to-value and debt service coverage ratios as primary metrics. See Note 4 to our unaudited consolidated financial statements, incorporated by reference, for a summary of our portfolio by loan-to-value and debt service coverage ratios.

Mortgage loans summarized in the following table represent all loans that we are either not currently collecting or those we feel it is probable we will not collect all amounts due according to the contractual terms of the loan agreements (all loans that we have worked with the borrower to alleviate short-term cash flow issues, loans delinquent for 60 days or more at the reporting date, loans we have determined to be collateral dependent and loans that we have recorded specific impairments on that we feel may continue to have performance issues).

	March 31, 2020	December 31, 2019
	(Dollars in thousands)	
Impaired mortgage loans with an allowance	\$ 5,475	\$ 1,229
Impaired mortgage loans with no related allowance	—	—
Allowance for probable loan losses	(2,426)	(229)
Net carrying value of impaired mortgage loans	<u>\$ 3,049</u>	<u>\$ 1,000</u>

At March 31, 2020, we had no commercial mortgage loans that were delinquent (60 days or more past due at the reporting date) in their principal and interest payments.

Derivative Instruments

Our derivative instruments primarily consist of call options purchased to provide the income needed to fund the annual index credits on our fixed index annuity products. The fair value of the call options is based upon the amount of cash that would be required to settle the call options obtained from the counterparties adjusted for the nonperformance risk of the counterparty. The nonperformance risk for each counterparty is based upon its credit default swap rate. We have no performance obligations related to the call options.

None of our derivatives qualify for hedge accounting, thus, any change in the fair value of the derivatives is recognized immediately in the consolidated statements of operations. A presentation of our derivative instruments along with a discussion of the business strategy involved with our derivatives is included in Note 5 to our unaudited consolidated financial statements in this Form 10-Q, which is incorporated by reference in this Item 2.

Liquidity and Capital Resources

Our insurance subsidiaries generally have adequate cash flows from annuity deposits and investment income to meet their policyholder and other obligations. Net cash flows from annuity deposits and funds returned to policyholders as surrenders, withdrawals and death claims were \$(211.0) million for the three months ended March 31, 2020 compared to \$454.5 million for the three months ended March 31, 2019, with the decrease attributable to a \$498.6 million decrease in net annuity deposits after coinsurance and a \$166.9 million (after coinsurance) increase in funds returned to policyholders. As a result of funds returned to policyholders being in excess cash flows from annuity deposits for the three months ended March 31, 2020, we experienced a net cash outflow related to policyholder activity which was funded primarily by cash flows from investment income. We may continue to experience net cash outflows related to policyholder activity due to lower sales as a result of social distancing due to COVID-19. We continue to invest the net proceeds from policyholder transactions and investment activities in high quality fixed maturity securities and fixed rate commercial mortgage loans.

We, as the parent company, are a legal entity separate and distinct from our subsidiaries, and have no business operations. We need liquidity primarily to service our debt (senior notes and subordinated debentures issued to subsidiary trusts), pay operating expenses and pay dividends to common and preferred stockholders. Our assets consist primarily of the capital stock and surplus notes of our subsidiaries. Accordingly, our future cash flows depend upon the availability of dividends, surplus note interest payments and other statutorily permissible payments from our subsidiaries, such as payments under our investment advisory agreements and tax allocation agreement with our subsidiaries. These sources provide adequate cash flow for us to meet our current and reasonably foreseeable future obligations.

The ability of our life insurance subsidiaries to pay dividends or distributions, including surplus note payments, will be limited by applicable laws and regulations of the states in which our life insurance subsidiaries are domiciled, which subject our life insurance subsidiaries to significant regulatory restrictions. These laws and regulations require, among other things, our insurance subsidiaries to maintain minimum solvency requirements and limit the amount of dividends these subsidiaries can pay.

Currently, American Equity Investment Life Insurance Company ("American Equity Life") may pay dividends or make other distributions without the prior approval of the Iowa Insurance Commissioner, unless such payments, together with all other such payments within the preceding twelve months, exceed the greater of (1) American Equity Life's net gain from operations for the preceding calendar year, or (2) 10% of American Equity Life's statutory capital and surplus at the preceding December 31. For 2020, up to \$349.0 million can be distributed as dividends by American Equity Life without prior approval of the Iowa Insurance Commissioner. In addition, dividends and surplus note payments may be made only out of statutory earned surplus, and all surplus note payments are subject to prior approval by regulatory authorities in the life subsidiary's state of domicile. American Equity Life had \$2.1 billion of statutory earned surplus at March 31, 2020.

The maximum distribution permitted by law or contract is not necessarily indicative of an insurer's actual ability to pay such distributions, which may be constrained by business and regulatory considerations, such as the impact of such distributions on surplus, which could affect the insurer's ratings or competitive position, the amount of premiums that can be written and the ability to pay future dividends or make other distributions. Further, state insurance laws and regulations require that the statutory surplus of our life subsidiaries following any dividend or distribution must be reasonable in relation to their outstanding liabilities and adequate for their financial needs. Along with solvency regulations, the primary driver in determining the amount of capital used for dividends is the level of capital needed to maintain desired financial strength ratings from rating agencies. Both regulators and rating agencies could become more conservative in their methodology and criteria, including increasing capital requirements for our insurance subsidiaries which, in turn, could negatively affect the cash available to us from insurance subsidiaries. As of March 31, 2020, we estimate American Equity Life has sufficient statutory capital and surplus, combined with capital available to the holding company, to maintain this rating objective. However, this capital may not be sufficient if significant future losses are incurred or a rating agency modifies its rating criteria and access to additional capital could be limited.

The transfer of funds by American Equity Life is also restricted by a covenant in our line of credit agreement which requires American Equity Life to maintain a minimum RBC ratio of 275% and a minimum level of statutory surplus equal to the sum of 1) 80% of statutory surplus at June 30, 2016, 2) 50% of the statutory net income for each fiscal quarter ending after June 30, 2016, and 3) 50% of all capital contributed to American Equity Life after June 30, 2016. American Equity Life's RBC ratio was 372% at December 31, 2019. Under this agreement, we are also required to maintain a maximum ratio of adjusted debt to total adjusted capital of 0.35.

On November 21, 2019 we issued \$400 million of 5.95% fixed-rate reset non-cumulative preferred stock and received net proceeds of \$388.9 million. We used a portion of the proceeds to redeem \$165 million of our floating rate subordinated debentures in the fourth quarter of 2019 and the first quarter of 2020 and have \$225 million of net proceeds available for general corporate purposes.

Cash and cash equivalents of the parent holding company at March 31, 2020, were \$258.1 million which includes the \$225 million of net proceeds from the preferred issuance described above. The parent holding company contributed \$200 million of cash to American Equity Life during May of 2020. In addition, we have a \$150 million revolving line of credit, with no borrowings outstanding, available through September 2021 for general corporate purposes of the parent company and its subsidiaries. We also have the ability to issue equity, debt or other types of securities through one or more methods of distribution. The terms of any offering would be established at the time of the offering, subject to market conditions.

New Accounting Pronouncements

See Note 1 to our unaudited consolidated financial statements in this Form 10-Q, which is incorporated by reference in this Item 2.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We seek to invest our available funds in a manner that will maximize shareholder value and fund future obligations to policyholders and debtors, subject to appropriate risk considerations. We seek to meet this objective through investments that: (i) consist substantially of investment grade fixed maturity securities, (ii) have projected returns which satisfy our spread targets, and (iii) have characteristics which support the underlying liabilities. Many of our products incorporate surrender charges, market interest rate adjustments or other features, including lifetime income benefit riders, to encourage persistency.

We seek to maximize the total return on our fixed maturity securities through active investment management. Accordingly, we have determined that our available for sale portfolio of fixed maturity securities is available to be sold in response to: (i) changes in market interest rates, (ii) changes in relative values of individual securities and asset sectors, (iii) changes in prepayment risks, (iv) changes in credit quality outlook for certain securities, (v) liquidity needs, and (vi) other factors.

Interest rate risk is our primary market risk exposure. Substantial and sustained increases and decreases in market interest rates can affect the profitability of our products and the fair value of our investments. The profitability of most of our products depends on the spreads between interest yield on investments and rates credited on insurance liabilities. We have the ability to adjust crediting rates (caps, participation rates or asset fee rates for fixed index annuities) on substantially all of our annuity liabilities at least annually (subject to minimum guaranteed values). Substantially all of our annuity products have surrender and withdrawal penalty provisions designed to encourage persistency and to help ensure targeted spreads are earned. In addition, a significant amount of our fixed index annuity policies and many of our annual reset fixed rate deferred annuities were issued with a lifetime income benefit rider which we believe improves the persistency of such annuity products. However, competitive factors, including the impact of the level of surrenders and withdrawals, may limit our ability to adjust or maintain crediting rates at levels necessary to avoid narrowing of spreads under certain market conditions.

A major component of our interest rate risk management program is structuring the investment portfolio with cash flow characteristics consistent with the cash flow characteristics of our insurance liabilities. We use models to simulate cash flows expected from our existing business under various interest rate scenarios. These simulations enable us to measure the potential gain or loss in fair value of our interest rate-sensitive financial instruments, to evaluate the adequacy of expected cash flows from our assets to meet the expected cash requirements of our liabilities and to determine if it is necessary to lengthen or shorten the average life and duration of our investment portfolio. The "duration" of a security is the time weighted present value of the security's expected cash flows and is used to measure a security's sensitivity to changes in interest rates. When the durations of assets and liabilities are similar, exposure to interest rate risk is minimized because a change in value of assets should be largely offset by a change in the value of liabilities.

If interest rates were to increase 10% (13 basis points) from levels at March 31, 2020, we estimate that the fair value of our fixed maturity securities would decrease by approximately \$459.3 million. The impact on stockholders' equity of such decrease (net of income taxes and certain adjustments for changes in amortization of deferred policy acquisition costs and deferred sales inducements) would be a decrease of \$196.3 million in accumulated other comprehensive income and a decrease in stockholders' equity. The models used to estimate the impact of a 10% change in market interest rates incorporate numerous assumptions, require significant estimates and assume an immediate and parallel change in interest rates without any management of the investment portfolio in reaction to such change. Consequently, potential changes in value of our financial instruments indicated by the simulations will likely be different from the actual changes experienced under given interest rate scenarios, and the differences may be material. Because we actively manage our investments and liabilities, our net exposure to interest rates can vary over time. However, any such decreases in the fair value of our fixed maturity securities (unless related to credit concerns of the issuer requiring recognition of a credit loss) would generally be realized only if we were required to sell such securities at losses prior to their maturity to meet our liquidity needs, which we manage using the surrender and withdrawal provisions of our annuity contracts and through other means. See Financial Condition - Liquidity for Insurance Operations included in Management's Discussion and Analysis in our Annual Report on Form 10-K for the year ended December 31, 2019 for a further discussion of liquidity risk.

The amortized cost of fixed maturity securities that are callable at the option of the issuer, excluding securities with a make-whole provision, was \$7.8 billion as of March 31, 2020. We have reinvestment risk related to these redemptions to the extent we cannot reinvest the net proceeds in assets with credit quality and yield characteristics similar to the redeemed bonds. Such reinvestment risk typically occurs in a declining rate environment. In addition, we have \$4.8 billion of floating rate fixed maturity securities as of March 31, 2020. Generally, interest rates on these floating rate fixed maturity securities are based on the 3 month LIBOR rate and are reset quarterly. Should rates decline to levels which tighten the spread between our average portfolio yield and average cost of interest credited on annuity liabilities, we have the ability to reduce crediting rates (caps, participation rates or asset fees for fixed index annuities) on most of our annuity liabilities to maintain the spread at our targeted level. At March 31, 2020, approximately 99% of our annuity liabilities were subject to annual adjustment of the applicable crediting rates at our discretion, limited by minimum guaranteed crediting rates specified in the policies. At March 31, 2020, approximately 19% of our annuity liabilities were at minimum guaranteed crediting rates.

We purchase call options on the applicable indices to fund the annual index credits on our fixed index annuities. These options are primarily one-year instruments purchased to match the funding requirements of the underlying policies. Fair value changes associated with those investments are substantially offset by an increase or decrease in the amounts added to policyholder account balances for fixed index products. The difference between proceeds received at expiration of these options and index credits, as shown in the following table, is primarily due to over-hedging as a result of policyholder behavior being different than our expectations.

	Three Months Ended March 31,	
	2020	2019
(Dollars in thousands)		
Proceeds received at expiration of options related to such credits	\$ 285,263	\$ 58,460
Annual index credits to policyholders on their anniversaries	278,940	55,925

On the anniversary dates of the index policies, we purchase new one-year call options to fund the next annual index credits. The risk associated with these prospective purchases is the uncertainty of the cost, which will determine whether we are able to earn our spread on our fixed index business. We manage this risk through the terms of our fixed index annuities, which permit us to change caps, participation rates and asset fees, subject to contractual features. By modifying caps, participation rates or asset fees, we can limit option costs to budgeted amounts, except in cases where the contractual features would prevent further modifications. Based upon actuarial testing which we conduct as a part of the design of our fixed index products and on an ongoing basis, we believe the risk that contractual features would prevent us from controlling option costs is not material.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

In accordance with the Securities Exchange Act Rules 13a-15(e) and 15d-15(e), our management, under the supervision of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report on Form 10-Q. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded the design and operation of our disclosure controls and procedures were effective as of March 31, 2020 in recording, processing, summarizing and reporting, on a timely basis, information required to be disclosed by us in the reports that we file or submit under the Exchange Act.

There were no changes in our internal control over financial reporting that occurred during the quarter ended March 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

See Note 7 - Commitments and Contingencies to the unaudited consolidated financial statements in this Form 10-Q, which is incorporated by reference in this Item 1, for litigation and regulatory disclosures.

Item 1A. Risk Factors

Our 2019 Annual Report on Form 10-K described our Risk Factors. Other than as set forth below, there have been no material changes to the Risk Factors during the three months ended March 31, 2020.

Major public health issues, specifically the COVID-19 pandemic, and the resulting economic uncertainty, may adversely impact our business, financial condition and results of operations.

The recent outbreak of the novel coronavirus (COVID-19), recognized as a pandemic by the World Health Organization, has created significant economic and financial turmoil both in the U.S. and around the world which has had a material effect on the global economy and financial markets and raised concerns of a global recession. At this time, it is not possible to estimate how long it will take to stop the spread of COVID-19 or the longer term effects that the COVID-19 pandemic could have on our business. COVID-19 has caused significant economic effects where we operate, including closures of many businesses deemed non-essential due to shelter-in-place, stay-at-home, travel limitations and other governmental regulations. Though most of our employees are able to work remotely, these closures have caused disruption to the distribution channels through which we sell our products, including independent agents, and their clients. It is currently unclear how long such closures will last. The effects of such closures are dependent on the duration and spread of the COVID-19 pandemic and could adversely impact our business, financial condition and results of operations. Such adverse impacts may be material.

The outbreak of COVID-19 could have adverse impacts on economic activity that affects demand for annuities. Such events or conditions could have an adverse effect on sales of new policies. Increased unemployment resulting from the economic impacts of COVID-19 may also result in policyholders seeking sources of liquidity and withdrawing at rates greater than we previously expected. If policyholder lapse and surrender rates significantly exceed our expectations, it could have a material adverse effect on our business, financial condition and results of operations, liquidity and cash flows.

We have implemented risk management and contingency plans and taken measures and other precautions to protect our employees. Currently, most of our employees are working remotely with only operationally critical employees working at our offices in West Des Moines, Iowa for business continuity purposes, to the extent lawfully permitted. An extended period of remote work arrangements could strain our business continuity plans, introduce operational risk, including but not limited to cybersecurity, information technology and third party service provider risks, and impair our ability to manage our business.

The COVID-19 pandemic's effect on financial markets may materially impact our investment portfolio, although the extent of such impact is currently unknown. Our investment portfolio contains fixed income investments, such as bonds, the fair value of which fluctuates depending on market and other general conditions. These investments are also interest rate sensitive and may be adversely affected by changes in interest rates. The COVID-19 pandemic's effect on financial markets could also impair our ability to access and efficiently use external capital resources. In the event that these conditions persist and result in a prolonged period of economic uncertainty, our results of operations, our financial condition and/or liquidity, could be materially and adversely affected.

The risks and impacts associated with COVID-19 described above are not the only ones that may affect our company. Other risks presented in "Item 1A. Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2019, including risks related to credit, our reinsurance program, our use of derivatives, defaults on commercial mortgage loans, changes in law or regulation, or downgrades in our credit or financial strength ratings, may be heightened as a result of the COVID-19 pandemic.

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

Issuer Purchases of Securities

The following table presents the amount of our share purchase activity for the periods indicated:

Period	Total Number of Shares Purchased (a)	Average Price Paid Per Share
January 1, 2020 - January 31, 2020	357	\$ 29.89
February 1, 2020 - February 29, 2020	—	\$ —
March 1, 2020 - March 31, 2020	10,169	\$ 18.70
Total	10,526	

(a) Includes the number of shares of common stock utilized to execute certain stock incentive awards.

Item 6. Exhibits

Exhibit Number	Description
31.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	The following materials from American Equity Investment Life Holding Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Income (Loss), (iv) the Consolidated Statements of Changes in Stockholders' Equity, (v) the Consolidated Statements of Cash Flows and (vi) the Notes to Unaudited Consolidated Financial Statements.
104	The cover page from American Equity Investment Life Holding Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 formatted in iXBRL and contained in Exhibit 101.

SIGNATURES

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

Date: May 11, 2020

AMERICAN EQUITY INVESTMENT LIFE
HOLDING COMPANY

By: /s/ Ted M. Johnson

Ted M. Johnson, Chief Financial Officer and Treasurer
(Principal Financial Officer and Duly Authorized Officer)

By: /s/ Scott A. Samuelson

Scott A. Samuelson, Vice President and Chief Accounting Officer
(Principal Accounting Officer)

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

I, Anant Bhalla, certify that:

1. I have reviewed this quarterly report on Form 10-Q of American Equity Investment Life Holding Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 11, 2020

By:

/s/ ANANT BHALLA

Anant Bhalla, Chief Executive Officer and President
(Principal Executive Officer)

1. I have reviewed this quarterly report on Form 10-Q of American Equity Investment Life Holding Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ TED M. JOHNSON
Ted M. Johnson, Chief Financial Officer and Treasurer
(Principal Financial Officer)

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

In connection with the Quarterly Report of American Equity Investment Life Holding Company (the "Company") on Form 10-Q for the period ended March 31, 2020 as filed with the Securities and Exchange Commission on or about the date hereof (the "Report"), I, Anant Bhalla, Chief Executive Officer and President of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

Date: May 11, 2020

By:

/s/ ANANT BHALLA

Anant Bhalla, Chief Executive Officer and President
(Principal Executive Officer)

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

In connection with the Quarterly Report of American Equity Investment Life Holding Company (the "Company") on Form 10-Q for the period ended March 31, 2020 as filed with the Securities and Exchange Commission on or about the date hereof (the "Report"), I, Ted M. Johnson, Chief Financial Officer and Treasurer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

Date: May 11, 2020

By:

/s/ TED M. JOHNSON

Ted M. Johnson, Chief Financial Officer and Treasurer
(Principal Financial Officer)