

TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA

Audited Statutory – Basis Financial Statements as of December 31, 2020 and 2019 and for the three years ended December 31, 2020

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Report of Independent Auditors

To the Board of Trustees of Teachers Insurance and Annuity Association of America

We have audited the accompanying statutory-basis financial statements of Teachers Insurance and Annuity Association of America, which comprise the statutory-basis statements of admitted assets, liabilities and capital and contingency reserves as of December 31, 2020 and 2019, and the related statutory-basis statements of operations, of changes in capital and contingency reserves, and of cash flows for each of the three years in the period ended December 31, 2020.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of the statutory-basis financial statements in accordance with the accounting practices prescribed or permitted by the New York State Department of Financial Services. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of statutory-basis financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

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

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

Basis for Adverse Opinion on U.S. Generally Accepted Accounting Principles

As described in Note 2 to the statutory-basis financial statements, the statutory-basis financial statements are prepared by the Company on the basis of the accounting practices prescribed or permitted by the New York State Department of Financial Services, which is a basis of accounting other than accounting principles generally accepted in the United States of America.

The effects on the statutory-basis financial statements of the variances between the statutory basis of accounting described in Note 2 and accounting principles generally accepted in the United States of America, although not reasonably determinable, are presumed to be material.

Adverse Opinion on U.S. Generally Accepted Accounting Principles

In our opinion, because of the significance of the matter discussed in the "Basis for Adverse Opinion on U.S. Generally Accepted Accounting Principles" paragraph, the statutory-basis financial statements referred to above do not present fairly, in accordance with accounting principles generally accepted in the United States of America, the financial position of the Company as of December 31, 2020 and 2019, or the results of its operations or its cash flows for each of the three years in the period ended December 31, 2020.

Opinion on Statutory Basis of Accounting

ricewatehouse Coopers LLP

In our opinion, the statutory-basis financial statements referred to above present fairly, in all material respects, the admitted assets, liabilities and capital and contingency reserves of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in accordance with the accounting practices prescribed or permitted by the New York State Department of Financial Services described in Note 2.

New York, New York March 11, 2021

TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA STATUTORY - BASIS STATEMENTS OF ADMITTED ASSETS, LIABILITIES AND CAPITAL AND CONTINGENCY RESERVES

		Decem	ber 3	81,
		2020		2019
ADMITTED ASSETS	(in	millions, exce	ot sha	re amounts)
Bonds	\$	197,804	\$	189,018
Preferred stocks		363		415
Common stocks		5,644		5,657
Mortgage loans		34,647		32,441
Real estate		3,422		3,686
Cash, cash equivalents and short-term investments		2,461		902
Contract loans		1,493		1,803
Derivatives		627		794
Securities lending collateral assets		361		363
Other long-term investments		31,318		31,600
Investment income due and accrued		1,867		1,823
Net deferred federal income tax asset		2,155		2,406
Other assets		1,340		860
Separate account assets		42,806		43,827
TOTAL ADMITTED ASSETS	\$	326,308	\$	315,595
LIABILITIES, CAPITAL AND CONTINGENCY RESERVES				
Liabilities				
Reserves for life and health insurance, annuities and deposit-type contracts	\$	227,332	\$	217,761
Dividends due to policyholders		1,827		1,896
Interest maintenance reserve		3,388		2,090
Federal income taxes payable to affiliates		27		14
Asset valuation reserve		5,860		6,323
Derivatives		500		198
Payable for collateral for securities loaned		361		363
Other liabilities		4,288		4,313
Separate account liabilities		42,724		43,765
TOTAL LIABILITIES		286,307		276,723
Capital and Contingency Reserves				
Capital stock and additional paid-in capital (2,500 shares of \$1,000 par value common stock authorized, issued and outstanding and \$550,000 paid-in capital)		3		3
Surplus notes		6,290		5,041
Contingency reserves:				
For investment losses, annuity and insurance mortality, and other risks		33,708		33,828
TOTAL CAPITAL AND CONTINGENCY RESERVES		40,001		38,872
TOTAL LIABILITIES, CAPITAL AND CONTINGENCY RESERVES	\$	326,308	\$	315,595

TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA STATUTORY - BASIS STATEMENTS OF OPERATIONS

	For the Ye	e Years Ended December 31			
	2020		2019		2018
		(i	n millions)		
REVENUES					
Insurance and annuity premiums and other considerations	\$ 18,449	\$	16,003	\$	16,220
Annuity dividend additions	1,606		1,520		1,761
Net investment income	12,159		12,324		12,550
Other revenue	447	_	458		379
TOTAL REVENUES	\$ 32,661	\$	30,305	\$	30,910
BENEFITS AND EXPENSES					
Policy and contract benefits	\$ 20,818	\$	17,803	\$	17,694
Dividends to policyholders	3,262		3,267		3,526
Increase in policy and contract reserves	7,609		4,117		5,279
Net operating expenses	2,343		2,003		1,882
Net transfers to (from) separate accounts	 (2,713)	_	1,158		442
TOTAL BENEFITS AND EXPENSES	\$ 31,319	\$	28,348	\$	28,823
Income before federal income taxes and net realized capital gains (losses)	\$ 1,342	\$	1,957	\$	2,087
Federal income tax expense (benefit)	(12)		17		(23)
Net realized capital gains (losses) less capital gains taxes, after transfers to the interest maintenance reserve	(750)		(322)		(657)
NET INCOME	\$ 604	\$	1,618	\$	1,453

TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA STATUTORY - BASIS STATEMENTS OF CHANGES IN CAPITAL AND CONTINGENCY RESERVES

	Capital Stock and Additional Contingency Paid-in Capital Surplus Notes Reserves							Total
		-		(in mi	llions)			
Balance, December 31, 2017	\$	3	\$	5,041	\$	31,292	\$	36,336
Net income		_		_		1,453		1,453
Change in net unrealized capital gains on investments		_		_		(359)		(359)
Change in asset valuation reserve		_		_		128		128
Change in net deferred income tax				_		(147)		(147)
Change in post-retirement benefit liability				_		7		7
Change in non-admitted assets:								
Deferred federal income tax asset		_		_		585		585
Other assets		_		_		123		123
Balance, December 31, 2018	\$	3	\$	5,041	\$	33,082	\$	38,126
Net income		_		_		1,618		1,618
Change in net unrealized capital gains on						1,010		,,,,,,
investments		_		_		118		118
Change in asset valuation reserve		_		_		(1,063)		(1,063)
Change in net deferred income tax		_		_		(284)		(284)
Change in post-retirement benefit liability		_		_		(8)		(8)
Change in non-admitted assets:								
Deferred federal income tax asset		_		_		288		288
Other assets						77		77
Balance, December 31, 2019	\$	3	\$	5,041	\$	33,828	\$	38,872
Net income		_		_		604		604
Change in net unrealized capital gains on investments		_		_		(678)		(678)
Change in asset valuation reserve		_		_		463		463
Change in net deferred income tax		_		_		(200)		(200)
Change in post-retirement benefit liability		_		_		(8)		(8)
Change in non-admitted assets:						(-)		(-)
Deferred federal income tax asset		_		_		(51)		(51)
Other assets				_		(250)		(250)
Issuance of surplus notes				1,249		_		1,249
Balance, December 31, 2020	\$	3	\$	6,290	\$	33,708	\$	40,001

TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA STATUTORY - BASIS STATEMENTS OF CASH FLOWS

	For the Ye	mber 31,		
	2020	2019	2018	
CASH FROM OPERATIONS		(in millions)		
Insurance and annuity premiums and other considerations	\$ 18,453	\$ 16,008	\$ 16,225	
Net investment income	11,433	11,669	11,756	
Miscellaneous income	425	440	365	
Total receipts	30,311	28,117	28,346	
Policy and contract benefits	20,469	17,763	17,633	
Operating expenses	2,078	1,981	1,865	
Dividends paid to policyholders	1,725	1,737	1,764	
Federal income taxes paid (received)	(25) 49	(63)	
Net transfers to (from) separate accounts	(2,723	1,158	442	
Total disbursements	21,524	22,688	21,641	
Net cash from operations	8,787	5,429	6,705	
CASH FROM INVESTMENTS				
Proceeds from investments sold, matured, or repaid:				
Bonds	26,297	17,608	17,950	
Stocks	6,441	2,097	1,891	
Mortgage loans and real estate	2,349	2,479	2,880	
Other invested assets	2,499	1,976	2,368	
Miscellaneous proceeds	344	611	1,182	
Cost of investments acquired:				
Bonds	32,779	18,624	19,838	
Stocks	6,413	2,232	1,716	
Mortgage loans and real estate	4,017	6,368	6,482	
Other invested assets	3,541	3,041	4,483	
Miscellaneous applications	1,196	71	513	
Net cash used in investments	(10,016	(5,565)	(6,761)	
CASH FROM FINANCING AND OTHER				
Proceeds from issuance of surplus notes	1,249	_	_	
Net deposits on deposit-type contracts funds	1,620	465	15	
Other cash provided (applied)	(81	(25)	(1)	
Net cash from financing and other	2,788	440	14	
NET CHANGE IN CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS	1,559	304	(42)	
CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS, BEGINNING OF YEAR	902	598	640	
CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS, END OF YEAR	\$ 2,461	\$ 902	\$ 598	

Note 1 – Organization

Teachers Insurance and Annuity Association of America ("TIAA" or the "Company") was established in 1918 as a legal reserve life insurance company under the insurance laws of the State of New York. All of the outstanding common stock of TIAA is held by the TIAA Board of Overseers ("Board of Overseers"), a not-for-profit corporation incorporated in the State of New York originally created for the purpose of holding the stock of TIAA.

The Company's primary purpose is to aid and strengthen non-profit educational and research organizations, governmental entities and other non-profit institutions by providing retirement and insurance benefits for their employees and their families and by counseling such organizations and their employees on benefit plans and other measures of economic security. In addition, TIAA may otherwise engage in any business permitted under the New York Insurance Law for a domestic life stock insurance company, provided that such business supports this purpose, including without limitation by (i) enhancing the creditworthiness, financial strength and reputation of TIAA, (ii) providing all of the holders and beneficiaries of TIAA's contracts and policies with benefits of scale, increased diversity in offered products and newly innovated products and (iii) providing for additional infrastructure and support to TIAA.

Note 2 - Significant Accounting Policies

Basis of Presentation:

The financial statements of TIAA are presented on the basis of statutory accounting principles prescribed or permitted by the New York State Department of Financial Services ("NYDFS" or the "Department"). The Department requires insurance companies domiciled in the State of New York to prepare their statutory-basis financial statements in accordance with the National Association of Insurance Commissioners' ("NAIC") Accounting Practices and Procedures Manual ("NAIC SAP"), subject to any deviation prescribed or permitted by the Department ("New York SAP").

The Department has adopted certain prescribed accounting practices that differ from those found in NAIC SAP. The Department did not adopt certain provisions in Regulation No. 172 (11 NYCRR 83). Specifically section 83.4(t) states, "The guidance prescribed in subparagraphs 4.a. and 4.b. of SSAP No. 26R, "Bonds" and Footnote 1 of Statement of Statutory Accounting Principles ("SSAP") No. 97, is not adopted." In effect, section 83.4(t) would exclude exchange traded funds ("ETFs") designated by the SVO as qualifying for bond accounting treatment from receiving such treatment in quarterly and annual financial statements filed in New York. However, the Company has received a permitted practice from the Department to continue to report investment grade bond ETF holdings held as of December 4, 2020 as bonds under SSAP No. 26R, Bonds, rather than as equities, for the year ended December 31, 2020. The total balance of investment grade ETF holdings treated as bonds as of December 31, 2020 and 2019 are \$1,665 million and \$1,049 million, respectively.

The table below provides a reconciliation of the Company's net income and capital and contingency reserves between NAIC SAP and the New York SAP annual statement filed with the Department. The additional reserve for the term conversions results from the Department requiring in Regulation No. 147 (11NYCRR 98) Valuation of Life Insurance Reserves Section 98.4 for any policy which guarantees renewal, or conversion to another policy, without evidence of insurability, additional reserves shall be held that account for excess mortality due to anti-selection with appropriate margins to cover expenses and risk of moderately adverse deviations in experience.

The NAIC has adopted certain prescribed accounting practices within Interpretation 2020-10, Reporting Nonconforming Credit Tenant Loans ("CTL") ("INT 20-10"). Specifically, INT 20-10 states nonconforming CTLs may continue to be treated as bonds rather than other long-term investments, if they were previously filed with the Securities Valuation Office ("SVO").

			For the Years Ended December 31,					
	NAIC SAP#	Financial Statement Line	2020 2019			2018		
				(in	millions)			
Net income, New York SAP			\$ 604	\$	1,618	\$	1,453	
New York SAP Prescribed Practices that are an increase/(decrease) to NAIC SAP:								
Additional reserves for term conversions	51R	Increase in policy and contract reserves	(1)		(1)			
Net income (loss), NAIC SAP			\$ 603	\$	1,617	\$	1,453	
Capital and surplus, New York SAP			\$ 40,001	\$	38,872	\$	38,126	
New York SAP Prescribed Practices that are an increase/(decrease) to NAIC SAP:								
Additional management for the management in the	54D	Reserves for life and health insurance, annuities and	20		04		22	
Additional reserves for term conversions	51R	deposit-type contracts	20		21		22	
Non-conforming CTL's reported on schedule D-1	INT 20-10	Bonds	419		_		_	
Non-conforming CTL's reported on schedule BA	INT 20-10	Other long-term investments	(419)					
Capital and surplus, NAIC SAP			\$ 40,021	\$	38,893	\$	38,148	

The Company's risk based capital ("RBC") as of December 31, 2020 and 2019 would not have triggered a regulatory event without the use of the New York SAP prescribed and permitted practices.

Accounting Principles Generally Accepted in the United States: The Financial Accounting Standards Board ("FASB") dictates the accounting principles for financial statements that are prepared in conformity with Generally Accepted Accounting Principles ("GAAP") with applicable authoritative accounting pronouncements. As a result, the Company cannot refer to financial statements prepared in accordance with NAIC SAP and New York SAP as having been prepared in accordance with GAAP.

The primary differences between GAAP and NAIC SAP can be summarized as follows:

Under GAAP:

- Investments in bonds considered to be "available for sale" are carried at fair value rather than at amortized cost under NAIC SAP;
- Impairments on securities (other than loan-backed and structured securities) due to credit losses are recorded
 as other-than-temporary impairments ("OTTI") through earnings for the difference between amortized cost and
 discounted cash flows when a security is deemed impaired. Other declines in fair value related to factors other
 than credit are recorded as other comprehensive income, which is a separate component of stockholder's
 equity. Under NAIC SAP, an impairment for such securities is recorded through earnings for the difference
 between amortized cost and fair value;
- For loan-backed and structured securities that are other-than-temporarily impaired, declines in fair value related to factors other than credit are recorded as other comprehensive income, which is a separate component of stockholder's equity. Under NAIC SAP, such declines in fair value are not recorded until a credit loss occurs;
- Changes in the allowance for estimated uncollectible amounts related to mortgage loans are recorded through earnings rather than as unrealized losses on impairments included in the Asset Valuation Reserve ("AVR"), which is a component of surplus under NAIC SAP;
- If in the aggregate, the Company has a net negative cash balance, the negative cash is recorded as a liability rather than as a negative asset under NAIC SAP;

- Changes in the value of certain other long-term investments accounted for under the equity method of accounting are recorded through earnings rather than as unrealized gains (losses), which is a component of surplus under NAIC SAP;
- Investments in wholly-owned subsidiaries, other entities under the control of the parent, and certain variable
 interest entities are consolidated in the parent's financial statements rather than being carried at the parent's
 share of the underlying GAAP equity or statutory surplus of a domestic insurance subsidiary under NAIC SAP;
- Contracts that contain an embedded derivative are bifurcated from the host contract and accounted for separately under GAAP, whereas under NAIC SAP, the embedded derivative is not bifurcated between components and is accounted for as part of the host contract;
- Certain assets designated as "non-admitted assets" and excluded from assets in the statutory balance sheet are included in the GAAP balance sheet;
- Surplus notes are reported as a liability rather than a component of capital and contingency reserves under NAIC SAP;
- The AVR is not recognized under GAAP. The AVR is established under NAIC SAP with changes recorded as a
 direct charge to surplus;
- The Interest Maintenance Reserve ("IMR") is not recognized under GAAP. The realized gains and losses
 resulting from changes in interest rates are reported as a component of net income under GAAP rather than
 being deferred and subsequently amortized into income over the remaining expected life of the investment
 sold under NAIC SAP;
- Dividends on participating policies are accrued when earned under GAAP rather than being recognized for the year when they are approved under NAIC SAP;
- Policy acquisition costs, such as commissions, and other costs incurred in connection with acquiring new business, are deferred and amortized over the expected lives of the policies issued rather than being expensed when incurred under NAIC SAP;
- Policy and contract reserves are based on management's best estimates of expected mortality, morbidity, persistency and interest rather than being based on statutory mortality, morbidity and interest requirements under NAIC SAP;
- Deferred income taxes, subject to valuation allowance, include federal and state income taxes and changes in
 the deferred tax are reflected in earnings. Under NAIC SAP, deferred taxes exclude state income taxes and are
 admitted to the extent they can be realized within three years subject to a 15% limitation of capital and surplus
 with changes in the net deferred tax reflected as a component of surplus;
- Contracts that do not subject the Company to risks arising from policyholder mortality or morbidity are reported
 as a deposit liability. Under NAIC SAP, an annuity contract containing a life contingency is required to be
 classified as a life insurance contract, regardless of the significance of any mortality and morbidity risk, and
 amounts received and paid under these contracts are reported as revenue and benefits, respectively;
- Assets and liabilities are reported gross of reinsurance under GAAP and net of reinsurance under NAIC SAP.
 Certain reinsurance transactions are accounted for as financing transactions under GAAP and as reinsurance under NAIC SAP. Transactions recorded as financing have no impact on premiums or losses incurred, while under NAIC SAP, premiums paid to the reinsurer are recorded as ceded premiums (a reduction in revenue) and expected reimbursement for losses from the reinsurer are recorded as a reduction in losses;
- When reserves ceded to an unauthorized reinsurer exceed the assets or letters of credit supporting the
 reserves no liability is established under GAAP. Under NAIC SAP, a liability is established and changes to
 these amounts are credited or charged directly to unassigned surplus (deficit).

 Revenue recognition for administrative service expense reimbursements are recognized as gross revenue and gross expense in the Statements of Operations when the Company is the principal in the transaction and where the Company controls the administrative services before transferring them to the customer. Under NAIC SAP, the administration expenses incurred are included in operating expenses and any offsetting reimbursements are netted against operating expenses.

The effects of these differences, while not determined, are presumed to be material.

Use of Estimates: The preparation of statutory-basis financial statements requires management to make estimates and assumptions that impact the reported amounts of assets and liabilities at the date of the financial statements. Management is also required to disclose contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results may differ from those estimates.

The most significant estimates include those used in the recognition of OTTIs, reserves for life and health insurance, annuities and deposit-type contracts and the valuation of deferred tax assets.

The outbreak of the novel coronavirus ("COVID-19") and subsequent global pandemic began significantly impacting the U.S. and global financial markets and economies during March 2020. The worldwide spread of COVID-19 has created significant uncertainty in the global economy. The duration and extent of COVID-19 over the long-term cannot be reasonably estimated at this time. There have been no comparable recent events that provide guidance as to the effect the spread of COVID-19 as a global pandemic may have on the Company's financial performance. The ultimate impact of COVID-19 and the extent to which COVID-19 impacts the Company's business, results of operations, investments, and cash flows will depend on future developments, which are highly uncertain and difficult to predict.

Reclassifications: Certain prior year amounts within these financial statement footnotes have been reclassified to conform to the current year presentation. No reclassifications were made to the Statements of Admitted Assets, Liabilities, and Capital and Contingency Reserves and the related Statements of Operations, Changes in Capital and Contingency Reserves, and Cash Flows.

Accounting Policies:

The following is a summary of the significant accounting policies followed by the Company:

Bonds: Bonds are stated at amortized cost using the constant yield method. Bonds in or near default (rated NAIC 6) are stated at the lower of amortized cost or fair value. NAIC ratings are applied to bonds and other securities. Categories 1 and 2 are considered investment grade, while Categories 3 through 6 are considered below investment grade. Bonds are recorded on a trade date basis, except for private placement bonds, which are recorded on the funding date. Bonds the Company intends to sell prior to maturity ("held for sale") are stated at the lower of amortized cost or fair value. Investment grade bond ETFs are accounted for as bonds and are stated at fair value.

Included within bonds are loan-backed and structured securities. Estimated future cash flows and expected prepayment speeds are used to determine the amortization of loan-backed and structured securities under the prospective method. Expected future cash flows and prepayment speeds are evaluated quarterly. Certain loan-backed and structured securities are reported at the lower of amortized cost or fair value as a result of the NAIC modeling process.

If it is determined that a decline in the fair value of a bond, excluding loan-backed and structured securities, is other-than-temporary, the cost basis of the bond is written down to fair value and the amount of the write down is accounted for as a realized loss. The new cost basis is not changed for subsequent recoveries in fair value. Future declines in fair value which are determined to be other-than-temporary are recorded as realized losses.

For loan-backed and structured securities which the Company has the intent and ability to hold for a period of time sufficient to recover the amortized cost basis, when an OTTI has occurred because the Company does not expect to recover the entire amortized cost basis of the security, the amount of the OTTI recognized as a realized loss is

the difference between the security's amortized cost basis and the present value of cash flows expected to be collected, discounted at the loan-backed or structured security's effective interest rate.

For loan-backed and structured securities, when an OTTI has occurred because the Company intends to sell the security or does not have the intent and ability to retain the security for a period of time sufficient to recover the amortized cost basis, the amount of the OTTI realized is the difference between the security's amortized cost basis and fair value at the balance sheet date.

In periods subsequent to the recognition of an OTTI loss for a loan-backed or structured security, the Company accounts for the other-than-temporarily impaired security as if the security had been purchased on the measurement date of the impairment. The difference between the new amortized cost basis and the cash flows expected to be collected is accreted as interest income in future periods based on prospective changes in cash flow estimates.

Preferred Stocks: Preferred stocks are stated at amortized cost unless they have an NAIC rating designation of 4, 5, or 6 which are stated at the lower of amortized cost or fair value. When it is determined that a decline in fair value of an investment is other-than-temporary, the cost basis of the investment is reduced to its fair value and the amount of the reduction is accounted for as a realized loss.

Common Stocks: Unaffiliated common stocks are stated at fair value, which is based on quoted market prices, where available. Changes in fair value are recorded through surplus as an unrealized gain or loss. When it is determined that a decline in fair value of an investment is other-than-temporary, the cost basis of the investment is reduced to its fair value and the amount of the reduction is accounted for as a realized loss.

Investments in subsidiary, controlled and affiliated ("SCA") entities are stated at the value of their underlying net assets as follows: (1) domestic insurance subsidiaries are stated at the value of their underlying statutory surplus, and (2) non-insurance subsidiaries are stated at the value of their underlying audited GAAP equity. Dividends and distributions from subsidiaries are recorded in investment income to the extent they are not in excess of the investee's undistributed accumulated earnings, and changes in the equity of subsidiaries are recorded directly to surplus as unrealized gains or losses.

Mortgage Loans: Mortgage loans are stated at amortized cost, net of valuation allowances. Amortized cost consists of the unpaid principal balance of the loans, net of unamortized premiums, discounts, and certain mortgage origination fees. Mortgage loans held for sale are stated at the lower of amortized cost or fair value. Mortgage loans are evaluated for impairment when it is probable that the receipt of contractual payments of principal and interest may not occur when scheduled. If the impairment is considered to be temporary, a valuation allowance is established for the excess of the carrying value of the mortgage over its estimated fair value. Changes in valuation allowance for mortgage loans are included in net unrealized capital gains and losses on investments. When an event occurs resulting in an impairment that is other-than-temporary, a direct write-down is recorded as a realized loss and a new cost basis is established. The fair value of mortgage loans is generally determined using a discounted cash flow methodology based on coupon rates, maturity provisions and credit assumptions.

Real Estate: Real estate occupied by the Company and real estate held for the production of income is carried at depreciated cost, less encumbrances. Real estate held for sale is carried at the lower of depreciated cost or fair value, less encumbrances, and estimated costs to sell. The Company utilizes the straight-line method of depreciation on real estate and it is generally computed over a forty-year period. A real estate property may be considered impaired when events or circumstances indicate that the carrying value may not be recoverable. When the Company determines that an investment in real estate is impaired, a direct write-down is made to reduce the carrying value of the property to its estimated fair value based on an external appraisal, net of encumbrances, and a realized loss is recorded. The Company makes investments in commercial real estate directly, through SCA entities and through real estate limited partnerships which are included in Other long-term investments. The Company monitors the effects of current and expected market conditions and other factors on its real estate investments to identify and quantify any impairment in value. The Company assesses assets to determine if events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. The Company evaluates the recoverability of income producing directly held real estate investments based on undiscounted cash

flows and then reviews the results of an independent third party appraisal to determine the fair value and if an impairment is required.

Other Long-term Investments: Other long-term investments primarily include investments in joint ventures, partnerships, and limited liability companies which are stated at cost, adjusted for the Company's percentage of the most recent available financial statements based on the underlying GAAP or International Financial Reporting Standards as reflected on the respective entity's financial statements.

The Company monitors the effects of current and expected market conditions and other factors on these investments to identify and quantify any impairment in value. The Company assesses the investments for potential impairment by performing analysis between the fair value and the cost basis of the investments. The Company evaluates recoverability of the Company's direct investment to determine if OTTI is warranted. When it is determined that a decline in fair value of an investment is other-than-temporary, the cost basis of the investment is reduced to its fair value, and the amount of the reduction is accounted for as a realized loss.

Investments in non-insurance SCA entities are stated at the value of their underlying audited equity. Dividends and distributions from subsidiaries are recorded in investment income to the extent they are not in excess of the investee's undistributed accumulated earnings, and changes in the equity of subsidiaries are recorded directly to surplus as unrealized gains or losses.

Other long-term investments include the Company's investments in surplus notes, which are stated at amortized cost. All of the Company's investments in surplus notes have a NAIC 1 rating designation.

Cash and Cash Equivalents: Cash includes cash on deposit and cash equivalents. Cash equivalents are short-term, highly liquid investments with original maturities of three months or less at the date of purchase and are stated at amortized cost. If in the aggregate, the Company has a net negative cash balance, the negative cash is recorded as a negative asset.

Short-Term Investments: Short-term investments (investments with remaining maturities greater than three months and less than or equal to 12 months at the time of acquisition, excluding those investments classified as cash equivalents) that are not impaired are stated at amortized cost using the straight line interest method. Short-term investments that are impaired are stated at the lower of amortized cost or fair value.

Contract Loans: Contract loans are stated at outstanding principal balances. Interest income accrued on contract loans past due 90 days or more are included in the unpaid balance of the loan. The excess of unpaid contract loan balances over the cash surrender value, if any, is non-admitted and reflected as an adjustment to surplus. Interest income on such contract loans is recorded as earned using the contractually agreed upon interest rate.

Derivative Instruments: The Company designates its derivative transactions as hedging or replication transactions. Derivatives that qualify and are designated for hedge accounting are reported as assets or liabilities on the balance sheet and accounted for in a manner consistent with the hedged item. Swap coupon cash flows and income accruals are reported as a component of net investment income. Upon termination, the gain or loss on these contracts is recognized in a manner consistent with the disposed hedged item.

Derivatives used in hedging relationships that do not qualify or are not designated for hedge accounting are carried at fair value. Changes in fair value are reported in surplus as net unrealized capital gains (losses). Swap coupon cash flows and income accruals are reported as a component of net investment income. Upon termination the gain or loss on these contracts is recognized as realized capital gains (losses) and is subject to IMR or AVR treatment.

Derivatives used in replication transactions are accounted for in a manner consistent with the cash instrument and the replicated asset. Accordingly, these derivatives are carried at amortized cost or fair value. Amortization of derivative premiums is reported as a component of net investment income. Swap coupon cash flows and income accruals are recorded as a component of net investment income. Upon termination, the gain or loss on these contracts is recognized as realized capital gains (losses) and is subject to IMR or AVR treatment.

The Company does not offset the carrying values recognized in the balance sheet for derivatives executed with the same counterparty under the same master netting agreement.

Investment Income Due and Accrued: Investment income due is investment income earned and legally due to be paid to the Company at the reporting date. Investment income accrued is investment income earned but not legally due to be paid to the Company until subsequent to the reporting date. The Company writes off amounts deemed uncollectible as a charge against investment income in the period such determination is made. Amounts deemed collectible, but over 90 days past due for any invested asset except mortgage loans in default are non-admitted. Amounts deemed collectible, but over 180 days past due for mortgage loans in default are non-admitted. The Company accrues interest income on impaired loans to the extent it is deemed collectible.

Separate Accounts: Separate accounts are established in conformity with insurance laws, are segregated from the Company's general account and are maintained for the benefit of separate account contract holders. Separate accounts are accounted for at fair value, except the TIAA Stable Value separate account, which supports book value separate account agreements, in which case the assets are accounted for at amortized cost. Separate account liabilities reflect the contractual obligations of the insurer arising out of the provisions of the insurance contract.

Foreign Currency Transactions and Translation: Investments denominated in foreign currencies and foreign currency contracts are valued in U.S. dollars, based on exchange rates at the balance sheet date. Investment transactions in foreign currencies are recorded at the exchange rates prevailing on the respective transaction dates. All other asset and liability accounts denominated in foreign currencies are adjusted to reflect exchange rates at the balance sheet date. Realized and unrealized gains and losses due to foreign exchange transactions and translation adjustments are not separately reported but are collectively included in realized and unrealized capital gains and losses, respectively.

Non-Admitted Assets: For statutory accounting purposes, certain assets are designated as non-admitted assets. Changes in non-admitted assets are reported as a direct adjustment to surplus.

At December 31, the major categories of assets that are non-admitted are as follows (in millions):

	2020		 2019	Change		
Net deferred federal income tax asset	\$	2,898	\$ 2,847	\$	51	
Furniture and electronic data processing equipment		377	363		14	
Invested assets		377	157		220	
Prepaid expenses		139	124		15	
Other		44	43		1	
Total	\$	3,835	\$ 3,534	\$	301	

Electronic Data Processing Equipment, Computer Software, Furniture and Equipment and Leasehold Improvements: Electronic data processing ("EDP") equipment, computer software and furniture and equipment which qualify for capitalization are depreciated over the lesser of useful life or 3 years. Office alterations and leasehold tenant improvements which qualify for capitalization are depreciated over the lesser of useful life or 5 years or the remaining life of the lease, respectively.

At December 31, the accumulated depreciation on EDP equipment, computer software, furniture and equipment and leasehold improvements is as follows (in millions):

	 2020	2019
EDP equipment and computer software	\$ 1,979	\$ 1,834
Furniture and equipment and leasehold improvements	\$ 126	\$ 116

Repurchase Agreement: Repurchase agreements are agreements between a seller and a buyer, whereby the seller of securities sells and simultaneously agrees to repurchase the same or substantially the same securities from the buyer at a stated price on a specified date. Repurchase agreements are generally accounted for as

secured borrowings. The assets transferred are not removed from the balance sheet; the cash collateral received is reported on the balance sheet with an offsetting liability reported in "Other liabilities."

Securities Lending Program: The Company has a securities lending program whereby it may lend securities to qualified institutional borrowers to earn additional income. The Company receives collateral (in the form of cash) against the loaned securities and maintains collateral in an amount not less than 102% of the market value of loaned securities during the period of the loan. The cash collateral received is reported in "Securities lending collateral assets" with an offsetting collateral liability included in "Payable for collateral for securities loaned." Securities lending income is recorded in the accompanying Statements of Operations in "Net investment income."

Insurance and Annuity Premiums and Other Considerations: Life insurance premiums are recognized as revenue over the premium-paying period of the related policies. Annuity premiums and other considerations, including consideration on annuity product rollovers, are recognized as revenue when received. Deposits on deposit-type contracts are recorded directly as a liability when received. Expenses incurred when acquiring new business are charged to operations as incurred.

Reserves for Life and Health Insurance, Annuities and Deposit-type Contracts: Policy and contract reserves are determined in accordance with standard valuation methods approved by the Department and are computed in accordance with standard actuarial methodology. The reserves established utilize assumptions for interest, mortality and other risks insured. Such reserves are established to provide for adequate contractual benefits guaranteed under policy and contract provisions.

Liabilities for deposit-type contracts, which do not contain any life contingencies, are equal to deposits received and interest credited to the benefit of contract holders, less surrenders or withdrawals (that represent a return to the contract holders) plus additional reserves (if any) necessitated by actuarial regulations. Funding agreements used in an investment spread capacity are also included within deposit-type contracts.

Asset Valuation Reserve and Interest Maintenance Reserve: Mandatory reserves have been established for the general account and separate account investments, where required. Such reserves consist of the AVR for potential credit-related losses on applicable general account and separate account invested assets. Changes to the AVR are reported as direct additions to or deductions from surplus. An IMR is established for interest-related realized capital gains (losses) resulting from changes in the general level of interest rates for the general account, as well as any separate accounts, not carried at fair value. Transfers to the IMR are deducted from realized capital gains and losses and are net of related federal income tax. IMR amortization, as calculated under the grouped method, is included in net investment income. Net realized capital gains (losses) are presented net of federal income tax expense or benefit and IMR transfer. For bonds, excluding loan-back and structured securities, losses from other-than-temporary impairments are recorded entirely to either the AVR or the IMR in accordance with the nature of the impairment.

Net Realized Capital Gains (Losses): Realized capital gains (losses), net of taxes, exclude gains (losses) deferred into the IMR and gains (losses) of the separate accounts. Realized capital gains (losses), including OTTI, are recognized in net income and are determined using the specific identification method.

Dividends Due to Policyholders: Dividends on insurance policies and pension annuity contracts in the payout phase are declared by the TIAA Board of Trustees (the "Board") and recorded in December of each year. Dividends on pension annuity contracts in the accumulation phase are declared by the Board in February of each year, and such dividends on the various existing vintages of pension annuity contracts in the accumulation phase are credited to policyholders during the ensuing twelve month period beginning March 1.

Federal Income Taxes: Current federal income taxes are charged or credited based upon amounts estimated to be payable or recoverable as a result of operations for the current year and any adjustments to such estimates from prior years. Deferred federal income tax assets ("DTAs") and deferred federal income tax liabilities ("DTLs") are recognized for expected future tax consequences of temporary differences between statutory and taxable income. Temporary differences are identified and measured using a balance sheet approach whereby statutory and tax balance sheets are compared. Changes in DTAs and DTLs are recognized as a separate component of surplus. Net DTAs are admitted to the extent permissible. Gross DTAs are reduced by a statutory valuation

allowance if it is more likely than not that some portion or all of the gross DTA will not be realized. The Company is required to establish a tax loss contingency if it is more likely than not that a tax position will not be sustained. The amount of the contingency reserve is management's best estimate of the amount of the original tax benefit that could be reversed upon audit, unless the best estimate is greater than 50% of the original tax benefit, in which case the reserve is equal to the entire tax benefit.

The Company files a consolidated federal income tax return with its includable insurance and non-insurance subsidiaries. The consolidating companies participate in tax allocation agreements. The tax allocation agreements provide that each member of the group is allocated its share of the consolidated tax provision or benefit, determined generally on a separate company basis, but may, where applicable, recognize the tax benefits of net operating losses or capital losses utilizable by the consolidated group. Intercompany tax balances are settled quarterly on an estimated basis with a final settlement occurring within 30 days of the filing of the consolidated return. The tax allocation agreements are not applied to subsidiaries that are disregarded under federal tax law.

Statements of Cash Flows: Noncash activities are excluded from the Statutory - Basis Statements of Cash Flows. These noncash activities for the years ended December 31 include the following (in millions):

	2	2020	 2019	 2018	
Exchange/transfer/conversion/distribution of invested assets	\$	3,952	\$ 3,493	\$ 3,403	
Annuity dividend additions	\$	1,606	\$ 1,520	\$ 1,761	
Capitalized interest	\$	416	\$ 393	\$ 397	
Interest credited on deposit-type contracts	\$	30	\$ 30	\$ 28	

Application of New Accounting Pronouncements:

In June 2016, the NAIC adopted substantive revisions to SSAP No. 51R, Life Contracts ("SSAP 51R") to facilitate the implementation of principles-based reserving ("PBR"), effective January 1, 2020. Under PBR, the Company will be required to hold the higher of (a) the reserves for life using prescribed factors and (b) the PBR reserve which considers a wide range of future economic conditions, computed using justified company experience factors, such as mortality, policyholder behavior and expenses. The Company received a one year deferral on adopting PBR for life insurance from the Department and plans to request an exemption in 2021 as the Company's only new life business written is conversion from term policies. As a result, the Company did not adopt PBR for life insurance during 2020. If the Company had adopted PBR for life insurance it would not have had a material impact to its statutory-basis financial statements.

In April 2020, the NAIC adopted modifications to SSAP No. 15, Debt and Holding Company Obligations, SSAP No. 22R, Leases, and SSAP No. 86, Derivatives. These revisions adopt Financial Accounting Standards Board Accounting Standard Update ("ASU") No. 2020-04 Reference Rate Reform, which applies to contracts, hedging relationships, and other transactions that reference London Inter-Bank Offered Rate ("LIBOR") or another reference rate expected to be discontinued because of reference rate reform. Optional expedients eliminate the requirements for remeasurement or dedesignation of transactions, if certain criteria are met. The expedients are effective for the period from March 12, 2020 to December 31, 2022, which is consistent with the effective period of ASU 2020-04. The Company is still assessing the impact of the guidance on the statutory-basis financial statements.

In April 2020, the NAIC adopted modifications to SSAP No. 97, Investments in Subsidiary, Controlled and Affiliated Entities ("SSAP 97"). The adopted revisions clarify that reporting entities may apply the look-through approach for multiple levels of downstream holding companies to the extent that each of the downstream entities meets the requirements in SSAP 97. These revisions were effective immediately upon adoption. The Company adopted this guidance and the adoption did not have a material impact to its statutory-basis financial statements.

In April 2020, the NAIC adopted modifications to SSAP No. 5R, Liabilities, Contingencies and Impairments of Assets, and SSAP No. 97. The revisions to SSAP No. 5R specifically scope in SCAs that would normally be excluded from the financial guarantee recognition guidance when the SCA is in a negative equity position and the insurer has provided a financial guarantee. Under the adopted revisions, all SCAs would stop at "zero" regardless

of the equity method losses and guarantees would be recognized, to the extent there is a financial guarantee or commitment, under SSAP No. 5R. These revisions were effective immediately upon adoption. The Company adopted this guidance and the adoption did not have a material impact to its statutory-basis financial statements.

In April 2020, the NAIC adopted modifications to SSAP No. 36, Troubled Debt Restructuring, through Interpretation 2020-03, Troubled Debt Restructuring Due to COVID-19 ("INT 20-03"). This guidance notes a mortgage loan or bank loan modification due to the impacts of COVID-19 on the borrower will not automatically be categorized as a troubled debt restructuring ("TDR"). To qualify for relief, the borrower must have been in good standing as of December 31, 2019 (not more than 30 days past due). This guidance expires at the earlier of 60 days after the date of termination of the National Emergency or January 2, 2022, which is the same end date as the Coronavirus Aid, Relief, and Economic Security ("CARES") Act. The Company has adopted this guidance and reflected it in its statutory-basis financial statements.

In May 2020, the NAIC adopted modifications to SSAP Nos. 26R, 36, 43R and 103R through Interpretation 20-07. This guidance clarifies how to determine when restructuring or modification of certain debt investments due to COVID-19 are a TDR. The guidance also clarifies whether a modification that is not a TDR needs to be assessed as an exchange under SSAP No. 103R. This guidance expires at the earlier of 60 days after the date of termination of the National Emergency or January 2, 2022, which is the same end date as the CARES Act. The Company has adopted this guidance and reflected it in its statutory-basis financial statements.

In May 2020, the NAIC adopted modifications to SSAP Nos. 3, Accounting Changes and Corrections of Errors ("SSAP 3") and SSAP 51R. The adoption provides revisions to SSAP 3 and SSAP 51R with a January 1, 2020 effective date. The revisions require disclosure of changes in the reserve valuation basis, as a result of the NAIC Valuation Manual ("VM") in section VM-21 Requirements for Principle-Based Reserves for Variable Annuities ("VM-21"). Additionally, requirements for PBR for Variable Annuities are disclosed in a manner which is consistent with a change in valuation basis and with additional disclosures regarding the phase-in period. The Company adopted VM-21 during 2020 without a phase-in period and elected to use a factor based alternative method similar to the factor based alternative method used prior to 2020 in accordance with Actuarial Guideline 43 ("AG43"). Given the similar methodology under VM-21 and AG43, there was no impact from the change in the reserve valuation basis. Therefore, these required disclosures are not applicable to the Company's statutory-basis financial statements.

In August 2020, the NAIC adopted modifications to SSAP No. 68, Enhanced Goodwill Disclosures. The revisions add additional goodwill disclosures which are intended to improve the validity and accuracy of numbers currently being reported for goodwill and will assist with regulator review of reported assets not readily available for the payment of policyholder claims. The revisions primarily require the disclosure of the amount of goodwill assigned to downstream holding companies and do not provide new guidance on the determination, calculation or admissibility of goodwill. The guidance is effective January 1, 2021 and the Company will provide the additional required disclosure thereafter.

In November 2020, the NAIC adopted revisions to SSAP No. 43R, Loan-backed and Structured Securities, and was effective immediately. These revisions update the financial modeling guidance/mapping instructions for residential mortgage-backed securities ("RMBS")/commercial mortgage-backed securities ("CMBS") to ensure consistency with guidance recently adopted in the Purposes and Procedures Manual of the NAIC Investment Analysis Office ("P&P Manual"). The Company adopted this guidance, and it did not have a material impact to its statutory-basis financial statements.

Note 3 - Long-Term Bonds, Preferred Stocks, and Unaffiliated Common Stocks

The book/adjusted carrying value, estimated fair value, excess of fair value over book/adjusted carrying value and excess of book/adjusted carrying value over fair value of long-term bonds at December 31, is shown below (in millions):

			2			
			Exc	ess	of	
	Book/ Adjusted Carrying Value		Fair Value Over Book/Adjusted Carrying Value		Book/Adjusted Carrying Value Over Fair Value	Estimated Fair Value
Bonds:						
U.S. governments	\$	27,315	\$ 5,531	\$	(86)	\$ 32,760
All other governments		4,613	692		(31)	5,274
States, territories and possessions		744	160		_	904
Political subdivisions of states, territories, and possessions		663	105		(1)	767
Special revenue and special assessment, non-guaranteed agencies and government		20,393	2,734		(15)	23,112
Credit tenant loans		11,240	2,037		(8)	13,269
Industrial and miscellaneous		125,775	17,976		(237)	143,514
Hybrids		464	111		(5)	570
Parent, subsidiaries and affiliates		341	_		(4)	337
Bank loans		6,256	58		(124)	6,190
Total	\$	197,804	\$ 29,404	\$	(511)	\$ 226,697
	2019					
			2	019		
				019 ess (of	
		Book/ djusted carrying Value		ess (of Book/Adjusted Carrying Value Over Fair Value	Estimated Fair Value
Bonds:		djusted Carrying	Exc Fair Value Over Book/Adjusted	ess (Book/Adjusted Carrying Value Over	
Bonds: U.S. governments		djusted Carrying	Exc Fair Value Over Book/Adjusted	ess (Book/Adjusted Carrying Value Over	
		djusted Carrying Value	Exc Fair Value Over Book/Adjusted Carrying Value	ess (Book/Adjusted Carrying Value Over Fair Value	 Fair Value
U.S. governments		Adjusted Carrying Value	Fair Value Over Book/Adjusted Carrying Value	ess (Book/Adjusted Carrying Value Over Fair Value	 Fair Value 34,341
U.S. governments All other governments		djusted Carrying Value 30,259 4,912	Fair Value Over Book/Adjusted Carrying Value \$ 4,092 530	ess (Book/Adjusted Carrying Value Over Fair Value	 34,341 5,431
U.S. governments All other governments States, territories and possessions		djusted Carrying Value 30,259 4,912 730	Fair Value Over Book/Adjusted Carrying Value \$ 4,092 530 112	ess (Book/Adjusted Carrying Value Over Fair Value (10) (11)	 34,341 5,431 842
U.S. governments All other governments States, territories and possessions Political subdivisions of states, territories, and possessions Special revenue and special assessment, non-guaranteed		djusted Carrying Value 30,259 4,912 730 641	Fair Value Over Book/Adjusted Carrying Value \$ 4,092 530 112 64	ess (Book/Adjusted Carrying Value Over Fair Value (10) (11) — (1)	 34,341 5,431 842 704
U.S. governments All other governments States, territories and possessions Political subdivisions of states, territories, and possessions Special revenue and special assessment, non-guaranteed agencies and government		30,259 4,912 730 641 19,424	Fair Value Over Book/Adjusted Carrying Value \$ 4,092 530 112 64 1,702	ess (Book/Adjusted Carrying Value Over Fair Value (10) (11) — (1)	 34,341 5,431 842 704 21,121
U.S. governments All other governments States, territories and possessions Political subdivisions of states, territories, and possessions Special revenue and special assessment, non-guaranteed agencies and government Credit tenant loans		30,259 4,912 730 641 19,424 10,482	Fair Value Over Book/Adjusted Carrying Value \$ 4,092 530 112 64 1,702 1,065	ess (Book/Adjusted Carrying Value Over Fair Value (10) (11) — (1) (5) (7)	 34,341 5,431 842 704 21,121 11,540
U.S. governments All other governments States, territories and possessions Political subdivisions of states, territories, and possessions Special revenue and special assessment, non-guaranteed agencies and government Credit tenant loans Industrial and miscellaneous		30,259 4,912 730 641 19,424 10,482 116,207	Fair Value Over Book/Adjusted Carrying Value \$ 4,092 530 112 64 1,702 1,065 10,190	ess (Book/Adjusted Carrying Value Over Fair Value (10) (11) — (1) (5) (7) (155)	 34,341 5,431 842 704 21,121 11,540 126,242
U.S. governments All other governments States, territories and possessions Political subdivisions of states, territories, and possessions Special revenue and special assessment, non-guaranteed agencies and government Credit tenant loans Industrial and miscellaneous Hybrids		30,259 4,912 730 641 19,424 10,482 116,207 385	Fair Value Over Book/Adjusted Carrying Value \$ 4,092 530 112 64 1,702 1,065 10,190	ess (Book/Adjusted Carrying Value Over Fair Value (10) (11) — (1) (5) (7) (155) (5)	 34,341 5,431 842 704 21,121 11,540 126,242 467

Impairment Review Process: All securities are subjected to the Company's process for identifying OTTI. The Company writes down securities it deems to have an OTTI in value during the period the securities are deemed to be impaired, based on management's case-by-case evaluation of the decline in value and prospects for recovery. Management considers a wide range of factors in the impairment evaluation process, including, but not limited to, the following: (a) the length of time the fair value has been below amortized cost; (b) the financial condition and near-term prospects of the issuer; (c) whether the debtor is current on contractually obligated interest and principal payments; (d) the intent and ability of the Company to retain the investment for a period of time sufficient to allow for any anticipated recovery in fair value or repayment; (e) information obtained from regulators and ratings agencies; (f) the potential for impairments in an entire industry sector or sub-sector; (g) the potential for impairment based on

an estimated discounted cash flow analysis for structured and loan-backed securities. Where impairment is considered to be other-than-temporary, the Company recognizes a realized loss and adjusts the cost basis of the security accordingly. The Company does not change the revised cost basis for subsequent recoveries in value.

Unrealized Losses on Bonds, Preferred Stocks and Unaffiliated Common Stocks: The gross unrealized losses and estimated fair values for securities by the length of time that individual securities are in a continuous unrealized loss position are shown in the table below (in millions):

		Less	twelve me	3	Twelve months or more					Twelve months or more						
	A	mortized Cost	Un	Gross realized Loss		stimated air Value		Amortized Cost				iross ealized .oss	Estimated Fair Value			
<u>December 31, 2020</u>																
Loan-backed and structured bonds	\$	1,477	\$	(112)	\$	1,365	\$	504	\$	(75)	\$	429				
All other bonds		9,219		(237)		8,982		2,878		(158)		2,720				
Total bonds	\$	10,696	\$	(349)	\$	10,347	\$	3,382	\$	(233)	\$	3,149				
Unaffiliated common stocks		129		(7)		122		8		(7)		1				
Preferred stocks		32		(16)		16		4		(4)						
Total bonds and stocks	\$	10,857	\$	(372)	\$	10,485	\$	3,394	\$	(244)	\$	3,150				
		Less	twelve months Twelve months or more													
		Amortized Cost		Gross Unrealized Loss		Estimated Fair Value		nortized Cost	Uni	Gross realized Loss		timated r Value				
December 31, 2019		_														
Loan-backed and structured bonds	\$	4 407	\$	(47)	•	4 440	\$	1,168	\$	(74)	\$	1,094				
	φ	1,427	Ψ	(17)	\$	1,410	Φ	1,100	Ψ	` '						
All other bonds	Ψ 	3,065	Ψ	(66)	5	1,410 2,998	Ψ	3,964		(179)		3,785				
All other bonds Total bonds	\$	*	\$	(66)	\$	•	\$	•	\$	` ,	\$	3,785 4,879				
		3,065	·	(66)		2,998	_	3,964		(179)	\$					
Total bonds		3,065	·	(66)		2,998	_	3,964 5,132		(179)	\$	4,879				

Based upon the Company's current evaluation of these securities in accordance with its impairment policy, the Company has concluded that these securities are not other-than-temporarily impaired. Additionally, the Company currently intends and has the ability to hold the securities with unrealized losses for a period of time sufficient for them to recover.

Scheduled Maturities of Bonds: The carrying value and estimated fair value of bonds, categorized by contractual maturity, are shown below. Bonds not due at a single maturity date have been included in the following table based on the year of final maturity. Actual maturities may differ from contractual maturities because borrowers may prepay obligations with or without call or prepayment penalties. Mortgage-backed, asset-backed, and bond exchange traded fund securities are shown separately in the table below, as they are not due at a single maturity date (in millions):

	 Decembe	r 31, 2	2020	December 31, 2019			
	k/ Adjusted rying Value	Es	timated Fair Value	Fair Book/ Adjuste Carrying Value		Es	stimated Fair Value
Due in one year or less	\$ 3,420	\$	3,468	\$	3,254	\$	3,287
Due after one year through five years	31,057		33,192		29,150		30,359
Due after five years through ten years	35,216		39,440		34,615		37,110
Due after ten years	 69,573		85,181		62,186		71,614
Subtotal	139,266		161,281		129,205		142,370
Residential mortgage-backed securities	25,808		29,121		28,193		30,610
Commercial mortgage-backed securities	10,204		10,948		10,320		10,722
Asset-backed securities	20,861		23,682		20,251		21,883
Exchange-traded funds	 1,665		1,665		1,049		1,049
Subtotal	 58,538		65,416		59,813		64,264
Total	\$ 197,804	\$	226,697	\$	189,018	\$	206,634

Bond Diversification: The following table presents the diversification of the carrying values of long-term bond investments at December 31. Loan-backed and structured securities issued by the U.S. government are included in residential mortgage-backed securities and asset-backed securities.

	2020	2019
Residential mortgage-backed securities	13.0 %	14.9 %
Asset-backed securities	10.5 %	10.7 %
Finance and financial services	10.1 %	8.1 %
Manufacturing	9.9 %	9.7 %
Public utilities	9.9 %	9.7 %
U.S. governments	8.2 %	7.9 %
Other	7.8 %	7.0 %
Revenue and special obligations	7.0 %	7.2 %
Services	6.9 %	7.0 %
Commercial mortgage-backed securities	5.2 %	5.5 %
Oil and gas	4.2 %	3.6 %
Real estate investment trusts	3.0 %	3.9 %
All other governments	2.3 %	2.6 %
Communications	2.0 %	2.2 %
Total	100.0 %	100.0 %

The following table presents the carrying value of the long-term bond portfolio by investment grade as of December 31, (in millions):

		 2019			
NAIC 1 and 2	\$	181,128	91.6 %	\$ 173,232	91.6 %
NAIC 3 through 6		16,676	8.4	15,786	8.4
Total	\$	197,804	100.0 %	\$ 189,018	100.0 %

Loan-backed and Structured Securities: The near-term prepayment assumptions for loan-backed and structured securities are based on historical averages drawing from performance experience for a particular transaction and may vary by security type. The long-term assumptions are adjusted based on expected performance.

For the years ended December 31, 2020 and 2019, the Company recognized OTTI on loan-backed and structured securities of \$56 million and \$14 million, respectively.

Other Disclosures: The following table represents the carrying amount of bonds and stocks denominated in a foreign currency as of December 31, (in millions):

	 2020	2019
Carrying amount of bonds and stocks denominated in foreign currency	\$ 4,332	\$ 4,386
Carrying amount of bonds and stocks denominated in foreign currency which are collateralized by real estate	\$ 512	\$ 861

Note 4 – Mortgage Loans

The Company originates mortgage loans that are principally collateralized by commercial real estate. The composition of the mortgage loan portfolio as of December 31, is as follows (in millions):

Loan Type	 2020	2019		
Commercial loans	\$ 31,825	\$	29,377	
Mezzanine loans	2,166		2,074	
Residential loans	656		990	
Total	\$ 34,647	\$ 32,441		

The maximum and minimum lending rates for mortgage loans originated or purchased during 2020 and 2019 are as follows:

	2020)	2019			
Loan Type	Maximum	Minimum	Maximum	Minimum		
Commercial loans	5.00 %	2.70 %	4.97 %	1.70 %		
Mezzanine loans	5.85 %	3.65 %	9.50 %	4.99 %		

The maximum percentage of any one loan to the value ("LTV") of the property at the time of the loan, exclusive of insured, guaranteed or purchase money mortgages, originated or purchased during 2020 and 2019 are as follows:

	Maximum	LTV
Loan Type	2020	2019
Commercial loans	69.0 %	69.4 %
Mezzanine loans	67.6 %	78.1 %

There were no residential mortgage loans originated or purchased during 2020 and 2019.

Impairment Review Process: The Company monitors the effects of current and expected market conditions and other factors on the collectability of mortgage loans to identify and quantify any impairment in value. Impairments

are classified as either temporary, for which a recovery is anticipated, or other-than-temporary. Mortgage loans held to maturity with other-than-temporarily impaired values at December 31, 2020 and 2019 have been written down to net realizable values based upon independent appraisals of the collateral. For impaired mortgage loans where the impairments are deemed to be temporary, an allowance for credit losses is established.

Credit Quality

For commercial mortgage loans, the primary credit quality indicators are the loan-to-value ratio, debt service coverage ratio and delinquency. Loan-to-value-ratios compare the unpaid principal balance of the loan to the estimated fair value of the underlying collateral. Generally, the higher the loan-to-value ratio, the higher the risk of experiencing a credit loss. Debt service coverage compares a property's net operating income to amounts needed to service the principal and interest due under the loan. Generally, the lower the debt service coverage ratio, the higher the risk of experiencing a credit loss. The debt service coverage ratio and the loan-to-value ratio, as well as the values utilized in calculating these ratios, are updated quarterly, with a portion of the loan portfolio updated annually. Delinquency is defined as a mortgage loan which is past due. Commercial mortgage loans more than 30 days past due are considered delinquent.

For residential mortgage loans, the Company's primary credit quality indicator is performance versus non-performance. The Company generally defines nonperforming residential mortgage loans as those that are 90 or more days past due and/or on non-accrual status. Generally, nonperforming residential loans have a higher risk of experiencing a credit loss.

The credit quality of the recorded investment, which represents carrying value plus accrued interest, in commercial mortgage loans at December 31, are as follows (in millions):

		Recorded Investment - Commercial Loan-to-value Ratios								
2020		> 70%		< 70%		Total	% of Total			
Debt service coverage ratios:										
Greater than 1.20x	\$	6,845	\$	25,034	\$	31,879	93.4 %			
Less than 1.20x		963		1,275		2,238	6.6 %			
Construction		_		12		12	— %			
Total	\$	7,808	\$	26,321	\$	34,129	100.0 %			
	Recorded Investment - Commercial									
				Loan-to-va	alue R	atios				
2019		> 70%		< 70%		Total	% of Total			
Debt service coverage ratios:							_			
Greater than 1.20x	\$	3,459	\$	26,388	\$	29,847	94.6 %			
Less than 1.20x		624		1,013		1,637	5.2 %			
Construction		_		79		79	0.2 %			
Total	\$	4,083	\$	27,480	\$	31,563	100.0 %			

Mortgage Loan Age Analysis: The following table sets forth an age analysis of mortgage loans and identification of mortgage loans in which the Company is a participant or co-lender in a mortgage loan agreement as of December 31, (in millions):

				Res	identia	al	_	Com	mer	cial	_			
2020	F	arm	Insured		All Other		Insured		All Other		Mezzanine		Total	
Recorded investment														
Current	\$	_	\$	_	\$	657	\$	_	\$	31,922	\$	2,176	\$	34,755
30-59 days past due	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
60-89 days past due	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
90-179 days past due	\$	_	\$	_	\$	1	\$	_	\$	30	\$	_	\$	31
180+ days past due	\$	_	\$	_	\$	1	\$	_	\$	_	\$	_	\$	1
Participant or co-lender in a mortgage loan agreement														
Recorded investment	\$	_	\$	_	\$	_	\$	_	\$	6,206	\$	2,176	\$	8,382

				Res	sidenti	al		Con	nmer	cial	_		
2019	F	arm	ln	sured	Α	II Other	ln	sured		All Other	М	ezzanine	Total
Recorded investment													
Current	\$	_	\$	_	\$	992	\$	_	\$	29,478	\$	2,084	\$ 32,554
30-59 days past due	\$	_	\$	_	\$	2	\$	_	\$	_	\$	_	\$ 2
60-89 days past due	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$ _
90-179 days past due	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$ _
Participant or co-lender in a mortgage loan agreement													
Recorded investment	\$	_	\$	_	\$	_	\$	_	\$	6,071	\$	2,084	\$ 8,155

Mortgage Loan Diversification: The following tables set forth the mortgage loan portfolio by property type and geographic distribution as of December 31,

	2020	2019	
Mortgage Loans by Property Type (Commercial & Residential):	% of Total	% of Total	
Office buildings	30.4 %	30.9 %	
Shopping centers	22.8	24.0	
Apartments	21.2	21.1	
Industrial buildings	13.2	11.1	
Other - commercial	10.5	9.8	
Residential	1.9	3.1	
Total	100.0 %	100.0 %	

	202	2019 % of Total			
	% of `				
Mortgage Loans by Geographic Distribution:	Commercial	Residential	Commercial	Residential	
South Atlantic	18.0 %	16.0 %	18.9 %	15.1 %	
Pacific	19.8	42.8	19.2	45.3	
South Central	12.2	7.4	12.8	6.8	
Middle Atlantic	18.0	17.2	17.3	15.4	
North Central	9.8	2.1	10.4	2.7	
New England	7.3	6.7	7.0	5.8	
Other	14.9	7.8	14.4	8.9	
Total	100.0 %	100.0 %	100.0 %	100.0 %	

Regional classification is based on American Council of Life Insurers regional chart. See below for details of regions.

South Atlantic states are DE, DC, FL, GA, MD, NC, SC, VA and WV

Pacific states are AK, CA, HI, OR and WA

South Central states are AL, AR, KY, LA, MS, OK, TN and TX

Middle Atlantic states are PA, NJ and NY

North Central states are IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD and WI

New England states are CT, MA, ME, NH, RI and VT

Other comprises investments in Mountain states (AZ, CO, ID, MT, NV, NM, UT, and WY), Australia, Canada and United Kingdom.

Scheduled Mortgage Loan Maturities: At December 31, contractual maturities for mortgage loans are as follows (in millions):

	2020			2019		
	Carry	ing Value	Carry	ing Value		
Due in one year or less	\$	1,442	\$	635		
Due after one year through five years		10,680		5,569		
Due after five years through ten years		18,369		18,163		
Due after ten years		4,156		8,074		
Total	\$	34,647	\$	32,441		

Actual maturities may differ from contractual maturities because borrowers may have the right to prepay mortgages, although prepayment premiums may be applicable.

With respect to impaired loans, the Company accrues interest income to the extent it is deemed collectible. Cash received on impaired mortgage loans that are performing according to their contractual terms is applied in accordance with those terms. For mortgage loans in the process of foreclosure, cash received is initially held in suspense and applied as a return of principal at the time that the foreclosure process is completed, or the mortgage is otherwise disposed.

There were no amounts due from related parties that are collateralized by real estate owned by the Company's investment subsidiaries and affiliates for the years ended December 31, 2020 or 2019.

Note 5 - Real Estate

At December 31, 2020 and 2019, the Company's directly owned real estate investments, were carried net of third party mortgage encumbrances. There were \$690 million of third party mortgage encumbrances as of December 31, 2020, and \$625 million for December 31, 2019.

The directly owned real estate portfolio is diversified by property type and geographic region based on carrying value at December 31, as follows:

	2020	2019
Directly Owned Real Estate by Property Type:	% of Total	% of Total
Industrial buildings	50.7 %	65.0 %
Apartments	21.1	12.5
Office buildings	19.6	15.8
Retail	3.8	3.6
Mixed-use projects	2.4	2.2
Land under development	1.2	0.9
Income-producing land	1.2	0.0
Total	100.0 %	100.0 %

	2020	2019
Directly Owned Real Estate by Geographic Region:	% of Total	% of Total
Pacific	31.7 %	37.3 %
South Atlantic	27.3	23.3
South Central	15.8	10.4
Mountain	9.9	14.4
Middle Atlantic	9.4	6.8
North Central	5.9	7.8
Total	100.0 %	100.0 %

Note 6 - Subsidiary, controlled and affiliated entities

The Company holds interests in SCA entities which are reported as common stock or other long-term investments. The carrying value of investments in SCA entities at December 31, are shown below (in millions):

	<u> </u>	2020	2019
Net carrying value of the SCA entities			_
Reported as common stock	\$	4,841	\$ 4,900
Reported as other long-term investments		21,909	24,088
Total net carrying value	\$	26,750	\$ 28,988

As of December 31, 2020 and 2019, no investment in a SCA entity exceeded 10% of the Company's admitted assets, and the Company does not have any investment in foreign insurance subsidiaries.

The following tables provide information on the Company's significant investments in non-insurance SCA entities reported as common stock, as well as information received from the NAIC in response to the filing of the common stock investments as of December 31 (in millions):

				2020		
SCA Entities	Percentage Owners		Gross Amount	Admitted Amount		Nonadmitted Amount
TIAA FSB Holdings, Inc.	100%)	\$3,141	\$3,141		\$—
			;	2020		
SCA Entity	Type of NAIC Filing	Date of Filing to the NAIC		NAIC Response Received Y/N		C Disallowed Entities Valuation Method, bmission Required Y/N
TIAA FSB Holdings, Inc.	Sub-2	8/27/2020	\$3,605	,605 Y		N
				2019		
SCA Entities	Percentage Owners		Gross Amount	Admitted Ar	nount	Nonadmitted Amount
TIAA FSB Holdings, Inc.	100%)	\$3,605		5	\$—
			:	2019		
SCA Entity	Type of NAIC Filing	Date of Filing to the NAIC		NAIC Response Received Y/N	,	C Disallowed Entities Valuation Method, bmission Required Y/N
TIAA FSB Holdings, Inc.	Sub-2	3/11/2019	\$3,555	Υ		N

The Company holds an interest in TIAA-CREF Life Insurance Company ("TIAA Life"), an insurance SCA entity, for which the audited statutory equity reflects NYDFS departures from NAIC SAP as noted below.

The deferred premium asset limitation results from the NYDFS Circular Letter No. 11 (2010), which prescribed the calculation and clarified the accounting for deferred premium assets when reinsurance is involved.

The Stable Value Separate Account ("SVSA") products are accounted for at book value in accordance with New York Insurance Law ("NYIL") Section 1414. The separate account liabilities for the benefits guaranteed under the contracts are carried at book value in accordance with NYIL section 4217, NYDFS Regulation No. 151. As of December 31, 2020, there were no remaining balances within the SVSA product and all contracts have been terminated.

The Department requires in Regulation No. 147 (11NYCRR 98) Valuation of Life Insurance Reserves Section 98.4 for any policy which guarantees renewal, or conversion to another policy, without evidence of insurability, additional reserves shall be held that account for excess mortality due to anti-selection with appropriate margins to cover expenses and risk of moderately adverse deviations in experience.

The following table provides the monetary effect on net income and surplus as a result of using NYDFS prescribed accounting practices that differed from NAIC SAP, the amount of the investment in the insurance SCA per audited statutory equity and amount of the investment if the insurance SCA had completed statutory financial statements in accordance with NAIC SAP (in millions):

				20	02	0			
		Monetary Effect on NAIC SAP Amount of Investment							
SCA Entity		Net Income Increase (Decrease)		Surplus Increase (Decrease)		Per Audited Statutory Equity		he Insurance SCA Had Completed tatutory Financial Statements*	
TIAA-CREF Life Insurance Company	\$	(1	1)	\$ 7		\$ 811	\$	818	
* Per NAIC SAP (without permitted or pre	scribed	practices)							
				20	01	9			
		Monetary Effect on NAIC SAP Amount of Investment						nvestment	
SCA Entity		Net Income Increase (Decrease)		Surplus Increase (Decrease)		Per Audited Statutory Equity		he Insurance SCA Had Completed tatutory Financial Statements*	
TIAA-CREF Life Insurance Company	\$	1	1	\$ 6		\$ 514	\$	520	

^{*} Per NAIC SAP (without permitted or prescribed practices)

During 2020 and 2019, had TIAA Life not departed from NAIC SAP a regulatory event would not have been triggered due to risk based capital.

The Company held bonds of affiliates at December 31, 2020 and 2019 of \$341 million and \$696 million, respectively.

As of December 31, 2020 and 2019, the net amount due to SCA entities was \$643 million and \$566 million, respectively. The net amounts are generally settled on a daily or monthly basis. These balances are reported in "Other assets" and "Other liabilities." The Company has a subsidiary deposit program which allows certain subsidiaries the ability to deposit excess cash with the Company and earn daily interest. The deposits from this program are included in the net amount due to SCA entities and were \$842 million and \$798 million as of December 31, 2020 and 2019, respectively.

The Company holds investments in downstream non-insurance holding companies, which are valued by the Company utilizing the look-through approach as defined in SSAP 97, *Investments in Subsidiary, Controlled and Affiliated Entities*. The financial statements for the downstream non-insurance holding companies are not audited and the Company has limited the value of its investment in these non-insurance holding companies. All liabilities, commitments, contingencies, guarantees or obligations of these subsidiaries, which are required to be recorded as liabilities, commitments, contingencies, guarantees or obligations under applicable accounting guidance, are reflected in the Company's determination of the carrying value of the investment in these subsidiaries, if not already recorded in the subsidiaries' financial statements. The Company's carrying value in these downstream non-insurance holding companies is \$6,695 million and \$7,039 million as of December 31, 2020 and 2019, respectively. Significant holdings as of December 31, are as follows (in millions):

		2020	2019		
Subsidiary	Carr	ying Value	Carry	ing Value	
TIAA Global Ag Holdco LLC	\$	958	\$	953	
TIAA Super Regional Mall Member Sub LLC		577		673	
T-C Europe, LP		441		411	
TIAA Infrastructure Investments, LLC		369		614	
Occator Agricultural Properties, LLC		365		417	
T-C Lux Fund Holdings LLC		352		327	
T-C MV Member LLC		318		420	
TGA APAC Fund Holdings, LLC		279		249	
730 Power Development, LLC		263		292	
NGFF Holdco, LLC		252		232	
TIAA-Stonepeak Investments I, LLC		232		235	
TGA MKP Member LLC		203		202	
T-C Waterford Blue Lagoon LLC		197		196	
TIAA Wind Investments LLC		186		184	
TIAA GTR Holdco LLC		157		171	
730 Transmission, LLC		112		_	
Broadleaf Timberland Investments, LLC		110		101	
TEFF Holdco LLC		103		84	
730 Data Centers, LLC		80		92	
TGA FC Investor Member LLC		78		69	
TGA EastRidge Investor Member LLC		75		_	
TGA MS Self Storage Investor Member LLC		73		78	
L.A. Teak Holdings, LLC		69		_	
Actoil Colorado, LLC		_		296	
Other		846		743	
Total	\$	6,695	\$	7,039	

Note 7 - Other Long-Term Investments

The components of the Company's carrying value in other long-term investments are (in millions):

	2020			2019
Affiliated other invested assets	\$	21,909	\$	24,088
Unaffiliated other invested assets		8,922		7,344
Receivables for securities and derivative collateral		487		168
Total other long-term investments	\$	31,318	\$	31,600

As of December 31, 2020 and 2019, affiliated other invested assets consist primarily of investments through downstream legal entities in the following (in millions):

	2020		 2019
Real estate	\$	6,934	\$ 7,084
Operating subsidiaries and affiliates		5,347	5,357
Investment subsidiaries		3,984	5,344
Agriculture and timber		4,212	4,346
Energy and infrastructure		1,432	1,957
Total affiliated other invested assets	\$	21,909	\$ 24,088

Of the \$5,347 million and \$5,357 million of operating subsidiaries and affiliates as of December 31, 2020 and 2019, \$5,060 million and \$5,139 million were attributed to Nuveen, LLC, TIAA's largest subsidiary, respectively.

As of December 31, 2020 and 2019, unaffiliated other invested assets consist primarily of joint ventures.

The following table presents the OTTI recorded for the years ended December 31, (in millions) for other long-term investments for which the carrying value is not expected to be recovered:

	2020	2019	2018
\$	487	\$ 182	\$ 661

The following table presents the carrying value for other long-term investments denominated in foreign currency for the years ended December 31, (in millions):

	2020	2019
Other long-term investments denominated in foreign currency	\$ 978	\$ 1,186

Note 8 - Investments Commitments

The outstanding obligation for future investments at December 31, 2020, is shown below by asset category (in millions):

	2021		In later years		Total Commitments	
Bonds	\$	623	\$	97	\$	720
Stocks		37		30		67
Mortgage loans		549		_		549
Real estate		254		_		254
Other long-term investments		1,725		4,908		6,633
Total	\$	3,188	\$	5,035	\$	8,223

The funding of bond commitments is contingent upon the continued favorable financial performance of the potential borrowers, funding of stock commitments is contingent upon their continued favorable financial performance and the funding of real estate and commercial mortgage commitments is generally contingent upon the underlying properties meeting specified requirements, including construction, leasing and occupancy. The funding of residential mortgage loan commitments is contingent upon the loan meeting specified guidelines including property appraisal reviews and confirmation of borrower credit. For other long—term investments, primarily fund investments, there are scheduled capital calls that extend into future years.

Note 9 – Investment Income and Capital Gains and Losses

Net Investment Income: The components of net investment income for the years ended December 31, are as follows (in millions):

	2020	2019	2018
Bonds	\$ 8,772	\$ 8,748	\$ 8,738
Stocks	121	159	79
Mortgage loans	1,388	1,407	1,268
Real estate	333	276	238
Derivatives	204	190	160
Other long-term investments	2,022	2,261	2,712
Cash, cash equivalents and short-term investments	3	9	8
Total gross investment income	12,843	13,050	13,203
Less investment expenses	(1,064)	(993)	(912)
Net investment income before amortization of IMR	11,779	12,057	12,291
Plus amortization of IMR	380	267	259
Net investment income	\$ 12,159	\$ 12,324	\$ 12,550

Realized Capital Gains and Losses: The net realized capital gains (losses) on sales, redemptions and write-downs due to OTTI for the years ended December 31, are as follows (in millions):

	2020	2019	2018
Bonds	\$ 1,382	\$ 34	\$ 129
Stocks	46	(185)	102
Mortgage loans	_	_	(65)
Real estate	27	112	22
Derivatives	1	132	58
Other long-term investments	(538)	(207)	(649)
Cash, cash equivalents and short-term investments	 10		18
Total before capital gains taxes and transfers to IMR	928	(114)	(385)
Transfers to IMR	 (1,678)	(208)	(272)
Net realized capital losses less capital gains taxes, after transfers to IMR	\$ (750)	\$ (322)	\$ (657)

Write-downs of investments resulting from OTTI, included in the preceding table, are as follows for the years ended December 31, (in millions):

	2	 2019	2018		
Other-than-temporary impairments:					
Bonds	\$	261	\$ 212	\$	126
Stocks		67	236		72
Mortgage Loans		1	_		55
Other long-term investments		487	 182		661
Total	\$	816	\$ 630	\$	914

Information related to the sales of long term bonds are as follows for the years ended December 31, (in millions):

	2020			2019	2018		
Proceeds from sales	\$	13,528	\$	6,757	\$	6,831	
Gross gains on sales	\$	1,656	\$	250	\$	307	
Gross losses on sales	\$	71	\$	75	\$	79	

The Company performs periodic reviews of its portfolio to identify investments which may have deteriorated in credit quality to determine if any are candidates for sale in order to maintain a quality portfolio of investments. Investments which are deemed candidates for sale are continually monitored until sold and carried at the lower of amortized cost or fair value. In accordance with the Company's valuation and impairment process, the investment will be monitored quarterly for further declines in fair value at which point an OTTI will be recorded until actual disposal of the investment.

Note 10 - Disclosures about Fair Value of Financial Instruments

Fair Value of Financial Instruments

Included in the Company's financial statements are certain financial instruments carried at fair value. Other financial instruments are periodically measured at fair value, such as when impaired, or for certain bonds and preferred stocks when carried at the lower of cost or fair value.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Fair values of financial instruments are based on quoted market prices when available. When market prices are not available, fair values are primarily provided by a third party-pricing service for identical or comparable assets, or through the use of valuation methodologies using observable market inputs. These fair values are generally estimated using a discounted cash flow analysis, incorporating current market inputs for similar financial instruments with comparable terms and credit quality. In instances where there is little or no market activity for the same or similar instruments, the Company estimates fair value using methods, models and assumptions that management believes market participants would use to determine a current transaction price in a hypothetical market. These valuation techniques involve management estimation and judgment for many factors including market bid/ask spreads, and such estimations may become significant with increasingly complex instruments or pricing models.

The Company's financial assets and liabilities are classified, for disclosure purposes, based on a hierarchy defined by SSAP No. 100, Fair Value Measurements. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The hierarchy gives the highest ranking to fair values determined using unadjusted quoted prices in active markets for identical assets and liabilities (Level 1) and the lowest ranking to fair values determined using methodologies and models with unobservable inputs (Level 3). An asset's or a liability's classification is based on the lowest level input that is significant to its measurement. For

example, a Level 3 fair value measurement may include inputs that are both observable (Levels 1 and Level 2) and unobservable (Level 3). The levels of the fair value hierarchy are as follows:

Level 1 – Inputs are unadjusted quoted prices in active markets for identical assets and liabilities that the Company has the ability to access at the measurement date.

Level 2 – Other than quoted prices within Level 1 inputs are observable for the asset or liability, either directly or indirectly.

Level 2 inputs include:

- Quoted prices for similar assets or liabilities in active markets,
- Quoted prices for identical or similar assets or liabilities in markets that are not active,
- Inputs other than quoted prices that are observable for the asset or liability,
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 – Inputs are unobservable inputs for the asset or liability supported by little or no market activity. Unobservable inputs reflect the Company's own assumptions about the assumptions that market participants would use in pricing the asset or liability. The Company's data used to develop unobservable inputs is adjusted if information is reasonably available without undue cost and effort that indicates that market participants would use different assumptions.

Net Asset Value ("NAV") practical expedient - TIAA has elected the NAV practical expedient for certain investments held by its separate account. These investments are excluded from the valuation hierarchy, as these investments are fair valued using their net asset value as a practical expedient since market quotations or values from independent pricing services are not readily available. The separate account assets that have elected the NAV practical expedient represent investments in limited partnerships and limited liability companies that invest in real estate properties. The fair value, determined by the NAV practical expedient, of these assets were \$393 million and \$312 million for the years ended December 31, 2020 and 2019, respectively, and total unfunded commitments were \$677 million and \$337 million for the years ended December 31, 2020 and 2019, respectively. For these investments, redemptions are prohibited prior to liquidation.

The following table provides information about the aggregate fair value for all financial instruments and their level within the fair value hierarchy as well as investments valued at their NAV, at December 31, 2020 (in millions):

	Aggregate Fair Value	Admitted Assets	Level 1	Level 2	Level 3	Net Asset Value (NAV)
Assets:						
Bonds	\$ 226,697	\$ 197,804	\$ 1,665	\$ 219,351	\$ 5,681	\$ —
Common stock	802	802	487	_	315	_
Preferred stock	457	363	34	147	276	_
Mortgage loans	35,641	34,647	_	_	35,641	_
Derivatives	549	627	_	82	467	_
Other invested assets	100	76	_	100	_	_
Contract loans	1,493	1,493	_	_	1,493	_
Separate account assets	42,982	42,806	16,925	3,368	22,296	393
Cash, cash equivalents & short term investments	2,460	2,461	189	2,271		
Total	\$ 311,181	\$ 281,079	\$ 19,300	\$ 225,319	\$ 66,169	\$ 393

	ggregate Stateme			Level 1		Le	vel 2	L	_evel 3	Net Asset Value (NAV)		
Liabilities:												
Deposit-type contracts	\$ 3,254	\$	3,254	\$	_	\$	_	\$	3,254	\$	_	
Separate account liabilities	42,724		42,724		_		_		42,724		_	
Derivatives	495		500				495					
Total	\$ 46,473	\$	46,478	\$		\$	495	\$	45,978	\$		

The following table provides information about the aggregate fair value for all financial instruments and their level within the fair value hierarchy as well as investments valued at their NAV at December 31, 2019 (in millions):

	Aggregat Fair Valu		Admitted Assets		_evel 1	Level 2	Level 3		V	: Asset /alue NAV)
Assets:					_			_		_
Bonds	\$ 206,63	5 5	189,018	\$	1,049	\$ 198,586	\$	7,000	\$	_
Common stock	75	7	757		509	_		248		_
Preferred stock	52	2	415		47	71		404		_
Mortgage loans	33,33	8	32,441		_	_		33,338		_
Derivatives	93	1	794		_	401		530		_
Other invested assets	9	6	76		_	96		_		_
Contract loans	1,80	3	1,803		_	_		1,803		_
Separate account assets	43,88	4	43,827		15,246	5,869		22,457		312
Cash, cash equivalents & short term investments	90	2	902		355	547				
Total	\$ 288,86	8 5	270,033	\$	17,206	\$ 205,570	\$	65,780	\$	312

	Aç Fa	gregate ir Value	Statement Value		Level 1		Level 2		Level 3		N	et Asset Value (NAV)
Liabilities:												
Deposit-type contracts	\$	1,600	\$	1,600	\$	_	\$	_	\$	1,600	\$	_
Separate account liabilities		43,765		43,765		_		_		43,765		_
Derivatives		192		198				192				
Total	\$	45,557	\$	45,563	\$		\$	192	\$	45,365	\$	

The estimated fair values of the financial instruments presented above are determined by the Company using market information available as of December 31, 2020 and 2019. Considerable judgment is required to interpret market data in developing the estimates of fair value for financial instruments for which there are no available market value quotations. The estimates presented are not necessarily indicative of the amounts the Company could realize in a market exchange. The use of different market assumptions and/or estimation methodologies may have a material effect on the estimated fair value amounts.

Level 1 financial instruments

Unadjusted quoted prices for these securities are provided to the Company by independent pricing services. Common stock, preferred stock, and separate account assets in Level 1 primarily include mutual fund investments valued by the respective mutual fund companies, exchange listed equities, and public real estate investment trusts. Bonds included in level 1 represent SVO-identified exchange traded funds that qualify for bond treatment, which are valued using quoted market prices. Cash included in Level 1 represents cash on hand.

Level 2 financial instruments

Bonds included in Level 2 are valued principally by third party pricing services using market observable inputs. Because most bonds do not trade daily, independent pricing services regularly derive fair values using recent trades of securities with similar features. When recent trades are not available, pricing models are used to estimate the fair values of securities by discounting future cash flows at estimated market interest rates. Typical inputs to models used by independent pricing services include but are not limited to benchmark yields, reported trades, broker-dealer quotes, issuer spreads, benchmark securities, bids, offers, reference data, and industry and economic events. Additionally, for loan-backed and structured securities, valuation is based primarily on market inputs including benchmark yields, expected prepayment speeds, loss severity, delinquency rates, weighted average coupon, weighted average maturity and issuance specific information. Issuance specific information includes collateral type, payment terms of underlying assets, payment priority within the tranche, structure of the security, deal performance and vintage of loans.

Preferred stocks included in Level 2 include those which are traded in an inactive market for which prices for identical securities are not available. Valuations are based principally on observable inputs including quoted prices in markets that are not considered active.

Derivative assets and liabilities classified in Level 2 represent over-the-counter instruments that include, but are not limited to, fair value hedges using foreign currency swaps, foreign currency forwards, commodity forwards, interest rate swaps and credit default swaps. Fair values for these instruments are determined internally using market observable inputs that include, but are not limited to, forward currency rates, interest rates, credit default rates and published observable market indices.

Other invested assets in Level 2 are valued by a third party pricing vendor using primarily observable market inputs. Observable inputs include benchmark yields, reported trades, market dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers and reference data.

Separate account assets in Level 2 consist principally of short-term government agency notes and corporate bonds.

Cash equivalents included in Level 2 are valued principally by third party services using market observable inputs.

Level 3 financial instruments

Valuation techniques for bonds included in Level 3 are generally the same as those described in Level 2 except that the techniques utilize inputs that are not readily observable in the market, including illiquidity premiums and spread adjustments to reflect industry trends or specific credit-related issues. The Company assesses the significance of unobservable inputs for each security and classifies that security in Level 3 as a result of the significance of unobservable inputs.

Estimated fair value for privately traded common equity securities are principally determined using valuation and discounted cash flow models that require a substantial level of judgment. Included in Level 3 common stock is the Company's holdings in the Federal Home Loan Bank of New York ("FHLBNY") stock as described in Note 19 - FHLBNY Membership and Borrowings. As prescribed in the FHLBNY's capital plan, the par value of the capital stock is \$100 and all capital stock is issued, redeemed, repurchased, or transferred at par value. Since there is not an observable market for the FHLBNY's stock, these securities have been classified as Level 3.

Preferred shares are valued using valuation and discounted cash flow models that require a substantial level of judgment.

Mortgage loans are valued using discounted cash flow models that utilize inputs which include loan and market interest rates, credit spreads, the nature and quality of underlying collateral and the remaining term of the loans.

Derivatives assets classified as Level 3 represent structured financial instruments that rely on inputs that are significant to the estimated fair value that are not observable in the market or cannot be corroborated by

observable market data. Significant inputs that are unobservable generally include references to inputs outside the observable portion of credit curves or other relevant market measures. These unobservable inputs require significant management judgment or assumptions. Level 3 methodologies are validated through periodic comparison of the Company's fair values to external broker-dealer values.

Contract loans are fully collateralized by the cash surrender value of underlying insurance policies and are valued based on the carrying value of the loan, which is determined to be its fair value, and are classified as Level 3.

Separate account assets classified as Level 3 primarily include directly owned real estate properties, real estate joint ventures and real estate limited partnerships. Directly owned real estate properties are valued on a quarterly basis based on independent third party appraisals. Real estate joint venture interests are valued based on the fair value of the underlying real estate, any related mortgage loans payable and other factors such as ownership percentage, ownership rights, buy/sell agreements, distribution provisions and capital call obligations. Real estate limited partnership interests are valued based on the most recent NAV of the partnership.

Separate account liabilities are accounted for at fair value, except the TIAA Stable Value separate account, which supports book value separate account agreements, in which case the assets are accounted for at amortized cost. Separate account liabilities reflect the contractual obligations of the insurer arising out of the provisions of the insurer contract.

Deposit-type contracts include funding agreements used in an investment spread capacity. Fair value of funding agreements is determined by discounted cash flow analysis using funding agreement interest rates as of the reporting date. Other deposit-type contracts are valued based on the accumulated account value, which approximates fair value. All deposit-type contracts are classified as Level 3.

Assets and Liabilities Measured and Reported at Fair Value

The following table provides information about the aggregate fair value for financial instruments measured and reported at fair value and their level within the fair value hierarchy as well as investments valued at their NAV at December 31, (in millions):

	2020									
	L	evel 1		_evel 2		_evel 3		t Asset ue (NAV)		Total
Assets at fair value:										
Bonds										
U.S. Government	\$	_	\$	1,765	\$	_	\$	_	\$	1,765
Industrial and miscellaneous		1,665		146		90				1,901
Total bonds	\$	1,665	\$	1,911	\$	90	\$		\$	3,666
Common stock										
Industrial and miscellaneous	\$	487	\$		\$	315	\$		\$	802
Total common stocks	\$	487	\$		\$	315	\$		\$	802
Preferred stock	\$		\$		\$	92	\$		\$	92
Total preferred stocks	\$		\$		\$	92	\$		\$	92
Derivatives										
Interest rate contracts	\$	_	\$	21	\$	_	\$	_	\$	21
Foreign exchange contracts				240						240
Total derivatives	\$		\$	261	\$		\$		\$	261
Separate accounts assets	\$	16,901	\$	744	\$	22,296	\$	393	\$	40,334
Total assets at fair value	\$	19,053	\$	2,916	\$	22,793	\$	393	\$	45,155
Liabilities at fair value:										
Derivatives										
Foreign exchange contracts	\$	_	\$	338	\$	_	\$	_	\$	338
Credit default swaps	_	_		2		_		_		2
Total liabilities at fair value	\$		\$	340	\$		\$		\$	340

Assets at fair value: Bonds U.S. Government \$ - \$ 1,393 \$ - \$ - \$ 1 Industrial and miscellaneous 1,049 158 49 - 1 Total bonds \$ 1,049 \$ 1,551 \$ 49 \$ - \$ 2 Common stock Industrial and miscellaneous \$ 509 \$ - \$ 248 \$ - \$ Total common stocks \$ 509 \$ - \$ 248 \$ - \$ Preferred stock \$ 509 \$ - \$ 248 \$ - \$ Total preferred stock \$ - \$ - \$ 28 \$ - \$ Total preferred stock \$ - \$ - \$ 28 \$ - \$ Total preferred stock \$ - \$ - \$ 28 \$ - \$ Total preferred stock \$ - \$ - \$ 28 \$ - \$ Total preferred stock \$ - \$ - \$ 28 \$ - \$ Total preferred stock \$ - \$ - \$ 28 \$ - \$ Total preferred stock \$ - \$ - \$ 28 \$ - \$ Total derivatives Interest rate contracts \$ - \$ 12 \$ - \$ - \$ Foreign exchange contracts \$ - \$ 396 \$ Total derivatives \$ - \$ 408 \$ - \$ - \$ Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value Liabilities at fair value: Derivatives Foreign exchange contracts \$ - \$ 164 \$ - \$ - \$ \$			2019							
U.S. Government \$ - \$ 1,393 \$ - \$ - \$ 1 Industrial and miscellaneous 1,049 158 49 - 1 Total bonds \$ 1,049 \$ 1,551 \$ 49 \$ - \$ 2 Common stock		 _evel 1	L	evel 2	ι	_evel 3				Total
U.S. Government	Assets at fair value:									
Industrial and miscellaneous	Bonds									
Total bonds \$ 1,049 \$ 1,551 \$ 49 \$ - \$ 2 Common stock Industrial and miscellaneous \$ 509 \$ - \$ 248 \$ - \$ Total common stocks \$ 509 \$ - \$ 248 \$ - \$ Preferred stock \$ - \$ - \$ 28 \$ - \$ Total preferred stocks \$ - \$ - \$ 28 \$ - \$ Derivatives \$ - \$ 12 \$ - \$ - \$ Interest rate contracts \$ - \$ 12 \$ - \$ - \$ Foreign exchange contracts \$ - \$ 408 \$ - \$ - \$ Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives \$ - \$ - \$ - \$ - \$ - \$ - Foreign exchange contracts \$ - \$ -	U.S. Government	\$ _	\$	1,393	\$	_	\$	_	\$	1,393
Common stock Industrial and miscellaneous \$ 509 \$ \$ 248 \$ \$ Total common stocks \$ 509 \$ \$ 248 \$ \$ Preferred stock \$ 509 \$ \$ 248 \$ \$ Total preferred stocks \$ \$ \$ 28 \$ \$ Total preferred stocks \$ \$ \$ 28 \$ \$ Derivatives \$ \$ 12 \$ \$ \$ Interest rate contracts \$ \$ 12 \$ \$ \$ Foreign exchange contracts 396 Total derivatives \$ \$ 408 \$ \$ \$ Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives Foreign exchange contracts \$ \$ 164 \$ \$ \$ \$	Industrial and miscellaneous	1,049		158		49				1,256
Industrial and miscellaneous \$ 509	Total bonds	\$ 1,049	\$	1,551	\$	49	\$		\$	2,649
Total common stocks \$ 509 \$ — \$ 248 \$ — \$ Preferred stock \$ — \$ — \$ 28 \$ — \$ Total preferred stocks \$ — \$ — \$ 28 \$ — \$ Derivatives \$ — \$ — \$ 28 \$ — \$ Derivatives \$ — \$ — \$ 28 \$ — \$ Interest rate contracts \$ — \$ 12 \$ — \$ — \$ — Foreign exchange contracts \$ — \$ 12 \$ — \$ — \$ — Total derivatives \$ — \$ 408 \$ — \$ — \$ — Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives \$ — \$ — \$ — \$ — \$ — \$ — \$ — \$ — \$ — \$ — \$ — \$ — \$ — \$ — \$ — <td>Common stock</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Common stock									
Preferred stock \$ — \$ — \$ 28 \$ — \$ Total preferred stocks \$ — \$ — \$ 28 \$ — \$ Derivatives \$ — \$ — \$ 28 \$ — \$ Interest rate contracts \$ — \$ 12 \$ — \$ — \$ Foreign exchange contracts — 396 — — — — Total derivatives \$ — \$ 408 \$ — \$ — \$ Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives Foreign exchange contracts \$ — \$ 164 \$ — \$ — \$ — \$	Industrial and miscellaneous	\$ 509	\$		\$	248	\$		\$	757
Total preferred stocks \$ — \$ — \$ 28 \$ — \$ Derivatives Interest rate contracts \$ — \$ 12 \$ — \$ — \$ Foreign exchange contracts — 396 — — — Total derivatives \$ — \$ 408 \$ — \$ — \$ — \$ Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives Foreign exchange contracts \$ — \$ 164 \$ — \$ — \$ — \$	Total common stocks	\$ 509	\$		\$	248	\$		\$	757
Derivatives Interest rate contracts \$ - \$ 12 \$ - \$ - \$ Foreign exchange contracts - 396 Total derivatives \$ - \$ 408 \$ - \$ - \$ Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives Foreign exchange contracts \$ - \$ 164 \$ - \$ - \$ - \$	Preferred stock	\$ 	\$		\$	28	\$		\$	28
Interest rate contracts	Total preferred stocks	\$ 	\$		\$	28	\$		\$	28
Foreign exchange contracts — 396 — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — —	Derivatives									
Total derivatives \$ — \$ 408 \$ — \$ — \$ Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives Foreign exchange contracts \$ — \$ 164 \$ — \$ — \$	Interest rate contracts	\$ _	\$	12	\$	_	\$	_	\$	12
Separate accounts assets \$ 15,227 \$ 4,158 \$ 22,457 \$ 312 \$ 42 Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives Foreign exchange contracts \$ - \$ 164 \$ - \$ - \$ \$	Foreign exchange contracts	 		396						396
Total assets at fair value \$ 16,785 \$ 6,117 \$ 22,782 \$ 312 \$ 45 Liabilities at fair value: Derivatives Foreign exchange contracts \$ - \$ 164 \$ - \$ - \$ \$ - \$	Total derivatives	\$ 	\$	408	\$		\$		\$	408
Liabilities at fair value: Derivatives Foreign exchange contracts \$ — \$ 164 \$ — \$ — \$	Separate accounts assets	\$ 15,227	\$	4,158	\$	22,457	\$	312	\$	42,154
Derivatives Foreign exchange contracts \$ - \$ 164 \$ - \$ - \$	Total assets at fair value	\$ 16,785	\$	6,117	\$	22,782	\$	312	\$	45,996
Foreign exchange contracts \$ — \$ 164 \$ — \$ — \$	Liabilities at fair value:									
, , , , , , , , , , , , , , , , , , , ,	Derivatives									
	Foreign exchange contracts	\$ _	\$	164	\$	_	\$	_	\$	164
Credit default swaps 3	Credit default swaps	 		3						3
Total liabilities at fair value \$ — \$ — \$ — \$	Total liabilities at fair value	\$ 	\$	167	\$		\$		\$	167

Reconciliation of Level 3 assets and liabilities measured and reported at fair value:

The following is a reconciliation of the beginning and ending balances for assets and liabilities measured and reported at fair value using Level 3 inputs at December 31, 2020 (in millions):

	i	nto		Transfers out of Level 3	Total gains & (losses) included in Net Income	Total gains & (losses) included in Surplus	Purchases	lss	suances	Sa	ales	Settlements	Ending Balance at 12/31/2020
\$ 49	\$	76	а	\$ —	(12)	\$ (11)	\$ —	\$	1	\$	(6)	\$ (7)	\$ 90
248		_		_	13	3	4,954		_	(4	4,903)	_	315
28		71	b	(26) c	2	(19)	60		_		(1)	(23)	92
22,457		_		_	(101)	(763)	1,466		_		(761)	(2)	22,296
\$ 22,782	\$	147		\$ (26)	\$ (98)	\$ (790)	\$ 6,480	\$	1	\$ (5,671)	\$ (32)	\$ 22,793
\$	248 28 22,457	Balance at 1/1/2020 Le	1/1/2020 Level 3 \$ 49 \$ 76 248 — 28 71 22,457 —	Balance at 1/1/2020 into Level 3 \$ 49 \$ 76 a : 248 — 28 71 b 22,457 —	Balance at 1/1/2020 into Level 3 out of Level 3 \$ 49 \$ 76 a \$ — 248 — — — 28 71 b (26) c 22,457 — —	Balance at 1/1/2020 Transfers into Level 3 Transfers out of Level 3 Included in Net Income \$ 49 76 a \$ — (12) 248 — — 13 28 71 b (26) c 2 22,457 — — (101)	Balance at 1/1/2020 Transfers into Level 3 Transfers out of Level 3 Included in Net Income Included in Net Income Included in Surplus \$ 49 \$ 76 a \$ — (12) \$ (11) 248 — — 13 3 28 71 b (26) c 2 (19) 22,457 — — (101) (763)	Balance at 1/1/2020 Transfers into Level 3 Transfers out of Level 3 Included in Net Income Included Income Included Income Purchases \$ 49 \$ 76 a \$ — (12) \$ (11) \$ — 248 — — 13 3 4,954 28 71 b (26) c 2 (19) 60 22,457 — — (101) (763) 1,466	Balance at 1/1/2020 Transfers into Level 3 Transfers out of Level 3 Included in Net Income Glosses) included in Net Income Purchases Is \$ 49 \$ 76 a \$ — (12) \$ (11) \$ — \$ 248 — — — 13 3 4,954 28 71 b (26) c 2 (19) 60 22,457 — — (101) (763) 1,466	Balance at 1/1/2020 Transfers into Level 3 Transfers out of Level 3 Included in Net Income Included in cluded in Net Income Purchases Issuances \$ 49 \$ 76 a \$ — (12) \$ (11) \$ — \$ 1 248 — — 13 3 4,954 — 28 71 b (26) c 2 (19) 60 — 22,457 — — (101) (763) 1,466 —	Balance at 1/1/2020 Transfers into Level 3 Transfers out of Level 3 Included in Net Income Purchases Issuances Same services \$ 49 \$ 76 a \$ — — (12) \$ (11) \$ — \$ 1 \$ 248 — — — 13 3 4,954 — — — 28 71 b (26) c 2 (19) 60 — — — 22,457 — — — (101) (763) 1,466 — —	Balance at 1/1/2020 Transfers into Level 3 Transfers out of Level 3 Included in Net Income Included in Net Income Purchases Issuances Sales \$ 49 \$ 76 a \$ — — (12) \$ (11) \$ — \$ 1 \$ (6) 248 — — — 13 3 4,954 — — (4,903) 28 71 b (26) c 2 2 (19) 60 — — (1) 22,457 — — — (101) (763) 1,466 — — (761)	Balance at 1/1/2020 Transfers into Level 3 Transfers out of Level 3 Included in Net Income Purchases Issuances Sales Settlements \$ 49 \$ 76 a \$ — (12) \$ (11) \$ — \$ 1 \$ (6) \$ (7) 248 — — — — 4,954 — (4,903) — 28 71 b (26) c 2 (19) 60 — (1) (23) 22,457 — — (101) (763) 1,466 — (761) (2)

- (a) The Company transferred bonds into Level 3 that were measured and reported at fair value.
- (b) The Company transferred preferred stocks into Level 3 that were measured and reported at fair value.
- (c) The Company transferred preferred stocks out of Level 3 that were not measured and reported at fair value

The following is a reconciliation of the beginning and ending balances for assets and liabilities measured and reported at fair value using Level 3 inputs at December 31, 2019 (in millions):

	bal	ginning lance at 1/2019	ir	sfers ito /el 3	1	ransfers out of Level 3	Total gains (losses) included in Net Income	Total gains (losses) included in Surplus	Purchases	Issuances	Sales	Settlements	Ending Balance at 12/31/2019
Bonds	\$	100	\$	41	а\$	(45) b	\$ (23)	\$ 7	\$ 16	2 \$	(46)	\$ (3)	\$ 49
Common stock		195		_		_	(9)	10	1,652	_	(1,600)	_	248
Preferred stock		4		12	С	(18) d	_	_	30	_	_	_	28
Separate account assets		20,491		_		_	155	160	3,024	_	(1,757)	384	22,457
Total	\$	20,790	\$	53	\$	(63)	\$ 123	\$ 177	\$ 4,722	2 \$	(3,403)	\$ 381	\$ 22,782

- (a) The Company transferred bonds into Level 3 that were measured and reported at fair value.
- (b) The Company transferred bonds out of Level 3 that were not measured and reported at fair value.
- (c) The Company transferred preferred stocks into Level 3 that were measured and reported at fair value.
- (d) The Company transferred preferred stocks out of Level 3 that were not measured and reported at fair value.

The Company's policy is to recognize transfers into and out of Level 3 at the actual date of the event or change in circumstances that caused the transfer.

Quantitative Information Regarding Level 3 Fair Value Measurements

The following table provides quantitative information on significant unobservable inputs (Level 3) used in the fair value measurement of assets that are measured and reported at fair value at December 31, 2020 (in millions):

Financial Instrument	Fa	air Value	Valuation Techniques	Significant Unobservable Inputs	Range of Inputs	Weighted Average
Fixed maturity securities:			•	-		-
Bank Loans	\$	45	Market Comparable	Credit analysis/market comparable	\$75 - \$89	\$79
RMBS	\$	2	Discounted cash Flow	Discount rate	3.1 %	3.1 %
ABS	\$	43	Discounted cash Flow	Discount rate	23.0% - 25.0%	23.8%
Equity securities:						
Common stock	\$	315	Market comparable	EBITDA multiple	4.2x - 19.5x	11.4x
			Equity method	Book value multiple	1.0x	1.0x
			Market comparable	Credit analysis/market comparable	\$260	\$260
Preferred stock	\$	92	Market comparable	EBITDA multiple	6.4x - 10.5x	8.1x
Separate account assets:						
Real estate properties and real estate joint ventures	\$	22,894				
Office properties			Income approach -	Discount rate	5.5% - 9.0%	6.7%
			discounted cash flow	Terminal capitalization rate	4.0% - 8.3%	5.6%
			Income approach - direct capitalization	Overall capitalization rate	4.0% - 8.0%	5.0%
Industrial properties			Income approach -	Discount rate	5.2% - 9.0%	6.6%
			discounted cash flow	Terminal capitalization rate	4.3% - 7.3%	5.4%
			Income approach - direct capitalization	Overall capitalization rate	3.8% - 7.0%	4.8%
Residential properties			Income approach -	Discount rate	5.5% - 7.8%	6.4%
			discounted cash flow	Terminal capitalization rate	4.3% - 6.8%	5.1%
			Income approach - direct capitalization	Overall capitalization rate	3.8% - 6.0%	4.6%
Retail properties			Income approach -	Discount rate	5.0% - 12.0%	6.8%
			discounted cash flow	Terminal capitalization rate	4.3% - 9.4%	5.7%
			Income approach - direct capitalization	Overall capitalization rate	4.0% - 11.5%	5.2%
Hotel properties			Income approach -	Discount rate	10.3%	10.3%
			discounted cash flow	Terminal capitalization rate	7.8%	7.8%
			Income approach - direct capitalization	Overall capitalization rate	7.8%	7.8%

Separate account real estate assets include the values of the related mortgage loans payable in the table below:

Financial Instrument	Fair Value	Valuation Techniques	Significant Unobservable Inputs	Range of Inputs	Weighted Average
Mortgage loans payable	\$ (2,411)				
Office properties		Discounted cash flow	Loan to value ratio	35.4% - 54.9%	45.5%
		Discounted cash now	Equivalency rate	2.4% - 3.3%	3.0%
			Loan to value ratio	35.4% - 54.9%	45.5%
		Net present value	Weighted average cost of capital risk premium multiple	1.2 - 1.4	1.3
Industrial properties		Discounted cash flow	Loan to value ratio	54.6% - 59.2%	56.6%
		Discounted Cash now	Equivalency rate	3.3 %	3.3%
			Loan to value ratio	54.6% - 59.2%	56.6%
		Net present value	Weighted average cost of capital risk premium multiple	1.4 - 1.5	1.5
Residential properties			Loan to value ratio	29.6% - 65.9%	48.2%
		Discounted cash flow	Equivalency rate	2.3% - 3.2%	2.8%
			Loan to value ratio	29.6% - 65.9%	48.2%
		Net present value	Weighted average cost of capital risk premium multiple	1.2 - 1.7	1.4
Retail properties			Loan to value ratio	40.2% - 73.4%	47.6%
		Discounted cash flow	Equivalency rate	2.8% - 4.2%	3.0%
			Loan to value ratio	40.2% - 73.4%	47.6%
		Net present value	Weighted average cost of capital risk premium multiple	1.3 - 1.8	1.4

Separate account real estate assets include the values of the related loan receivable in the table below:

Financial Instrument	Fair	r Value	Valuation Techniques	Significant Unobservable Inputs	Range of Inputs	Weighted Average
Loan receivable	\$	1,563				
Office properties			Discounted cash flow	Loan to value ratio	50.6% - 91.8%	77.2%
			Discounted cash flow	Equivalency rate	3.5% - 9.6%	6.6%
Industrial properties			D'accounted and floor	Loan to value ratio	30.9% - 90.2%	69.1%
			Discounted cash flow	Equivalency rate	4.3% - 12.7%	6.8%
Residential properties			Discounted such flavor	Loan to value ratio	47.4% - 74.7%	64.1%
			Discounted cash flow	Equivalency rate	3.2% - 7.0%	4.9%
Retail properties			Discounted such flavor	Loan to value ratio	61.2% - 86.2	68.7%
			Discounted cash flow	Equivalency rate	5.4% - 9.9%	6.3%

Separate account real estate assets include the values of the real estate operating business in the table below:

				Significant Unobservable		Weighted
Financial Instrument	Faiı	r Value	Valuation Techniques		Range of Inputs	Average
Real estate operating business	\$	250				
			Discounted and flam	Discount rate	6.5%-8.0%	
			Discounted cash flow	Terminal growth rate	2.0%-2.5%	
			Market approach	EBITDA multiple	13.9x	

Additional Qualitative Information on Fair Valuation Process

The Company has various processes and controls in place to ensure that fair value is reasonably estimated. The procedures and framework for fair value methodologies are approved by the TIAA Valuation Committee. The Risk Management Valuation group is responsible for the determination of fair value in accordance with the procedures and framework approved by the TIAA Valuation Committee.

Risk Management Valuation (1) compares price changes between periods to current market conditions, (2) compares trade prices of securities to fair value estimates, (3) compares prices from multiple pricing sources, and (4) performs ongoing vendor due diligence to confirm that independent pricing services use market-based parameters for valuation. Internal and vendor valuation methodologies are reviewed on an ongoing basis and revised as necessary based on changing market conditions to ensure values represent a reasonable exit price.

Markets in which the Company's fixed income securities trade are monitored by surveying the Company's traders. Risk Management Valuation determines if liquidity is active enough to support a Level 2 classification. Use of independent non-binding broker quotations may indicate a lack of liquidity or the general lack of transparency in the process to develop these price estimates, causing them to be considered Level 3.

Level 3 equity investments generally include private equity co-investments along with general and limited partnership interests. Values are derived by the general partners. The partners generally fair value these instruments based on projected net earnings, earnings before interest, taxes depreciation and amortization, discounted cash flow, public or private market transactions, or valuations of comparable companies. When using market comparable, certain adjustments may be made for differences between the reference comparable and the investment, such as liquidity. Investments may also be valued at cost for a period of time after an acquisition, as the best indication of fair value.

With respect to real property investments in TIAA's Real Estate Account, each property is appraised, and each mortgage loan is valued, at least once every calendar quarter. Each property is appraised by an independent, third party appraiser, reviewed by the Company's internal appraisal staff and as applicable, the Real Estate Account's independent fiduciary. Any differences in the conclusions of the Company's internal appraisal staff and the independent appraiser are reviewed by the independent fiduciary, who will make a final determination. The independent fiduciary was appointed by a special subcommittee of the Investment Committee of TIAA Board of Trustees to, among other things, oversee the appraisal process. The independent fiduciary must approve all independent appraisers used by the Real Estate Account.

Mortgage loans payable are valued internally by the Risk Management Valuation group, and reviewed by the Real Estate Account's independent fiduciary, at least quarterly based on market factors, such as market interest rates and spreads for comparable loans, the performance of the underlying collateral (such as the loan-to-value ratio and the cash flow of the underlying collateral), the liquidity for mortgage loans of similar characteristics, the maturity date of the loan, the return demands of the market.

The loans receivable are valued internally by the Risk Management Valuation group, and reviewed by the Real Estate Account's independent fiduciary, at least quarterly based on market factors, such as market interest rates and spreads for comparable loans, the liquidity for loans of similar characteristics, the performance of the underlying collateral (such as the loan-to-value ratio and the cash flow of the underlying collateral) and the credit quality of the counterparty. The Real Estate Account continues to use the revised value after valuation adjustments for the loan receivable to calculate the Account's daily NAV until the next valuation review.

Note 11 - Restricted Assets

The following tables provide information on the amounts and nature of assets pledged to others as collateral or otherwise restricted by the Company as of December 31, (in millions):

						20	020				
	1	2	3	4	5	6	7	8	9	10	11
Restricted Asset Category	Total General Account (G/A)	G/A Supporting (S/A) Activity	Total Separate Account (S/A) Restricted Assets	S/A Assets Supporting G/A Activity	Total (1 plus 3)	Total From Prior Year	Increase / (Decrease) (5 minus 6)	Total Non admitted Restricted	Total Admitted Restricted (5 minus 8)	Gross (Admitted & Nonadmitted) Restricted to Total Assets	Admitted Restricted to Total Admitted Assets
Collateral held under security lending agreements FHLB capital stock	\$ 361 181		\$ 4	\$ —	\$ 365 181	\$ 395 104	\$ (30) 77	\$ —	\$ 365 181	0.11 % 0.05 %	0.11 %
On deposit with states	17		_	_	181	104	——————————————————————————————————————	_	17	0.05 %	0.06 %
Pledged as collateral to FHLB (including assets backing funding agreements)	1,990	_	_	_	1,990	449	1,541	_	1,990	0.60 %	0.61 %
Pledged as collateral not captured in other											
categories Other restricted assets	269	_	23	_	269	35 124	(101)	_	269	0.08 %	0.08 %
Total restricted assets	\$ 2,818	\$ —	\$ 27	\$ —	\$ 2,845		• •	\$ —	\$ 2,845	0.86 %	0.88 %

									20	19					
		1	2	3	3		4	5	6		7	8	9	10	11
Restricted Asset Category	Ge Ac	otal neral count G/A)	G/A upporting (S/A) Activity	To Sepa Acco (S/ Restr Ass	arate ount (A) ricted	Su	A Assets pporting G/A Activity	Total plus 3)	Total From Prior Year	(E	ncrease / Decrease) (5 minus 6)	Total Non admitted Restricted	Total Admitted Restricted (5 minus 8)	Gross (Admitted & Nonadmitted) Restricted to Total Assets	Admitted Restricted to Total Admitted Assets
Collateral held under security lending agreements	\$	363	\$ _	\$	32	\$	_	\$ 395	\$ 636	\$	(241)	\$ —	\$ 395	0.12 %	0.13 %
FHLB capital stock		104	_		_		_	\$ 104	82		22	_	104	0.03 %	0.03 %
On deposit with states		17	_		_		_	\$ 17	17		_	_	17	0.01 %	0.01 %
Pledged as collateral to FHLB (Including assets backing funding agreements)		449	_		_		_	\$ 449	0		449	_	449	0.14 %	0.14 %
Pledged as collateral not captured in other categories		35	_		_		_	\$ 35	26		9	_	35	0.01 %	0.01 %
Other restricted assets		99			25			\$ 124	224		(100)		124	0.04 %	0.04 %
Total restricted assets	\$	1,067	\$ _	\$	57	\$	_	\$ 1,124	\$ 985	\$	139	\$ —	\$ 1,124	0.35 %	0.36 %

The pledged as collateral not captured in other categories represents derivative collateral the Company has pledged and collateral pledged associated with forward loan purchase agreements.

The other restricted assets represents preferred stocks held within the general account for which the transfer of ownership was restricted by contractual requirements and real estate deposits held within separate accounts.

The following tables provide the collateral received and reflected as assets by the Company and the recognized obligation to return collateral assets as of December 31, (in millions):

	2020										
Collateral Assets	Carry	Adjusted ing Value ACV)	Fai	r Value	BACV to Total Assets (Admitted and Nonadmitted)	BACV to Total Admitted Assets					
General Account:											
Cash, cash equivalents and short-term investments	\$	356	\$	356	0.12 %	0.13 %					
Securities lending collateral assets		361		361	0.13 %	0.13 %					
Total General Account Collateral Assets	\$	717	\$	717	0.25 %	0.25 %					
Separate Account:	·										
Securities lending collateral assets	\$	4	\$	4	0.01 %	0.01 %					
Total Separate Account Collateral Assets	\$	4	\$	4	0.01 %	0.01 %					

	2020	
	Amount	% of Total Liabilities
Recognized Obligation to Return Collateral Asset (General Account)	\$ 717	0.29 %
Recognized Obligation to Return Collateral Asset (Separate Account)	\$ 4	0.01 %

	2019											
Collateral Assets	Carry	:/Adjusted ving Value BACV)	Fai	ir Value	BACV to Total Assets (Admitted and Nonadmitted)	BACV to Total Admitted Assets						
General Account:												
Cash, cash equivalents and short-term investments	\$	868	\$	868	0.32 %	0.32 %						
Securities lending collateral assets		363		363	0.13 %	0.13 %						
Total General Account Collateral Assets	\$	1,231	\$	1,231	0.45 %	0.45 %						
Separate Account:												
Securities lending collateral assets	\$	32	\$	32	0.07 %	0.07 %						
Total Separate Account Collateral Assets	\$	32	\$	32	0.07 %	0.07 %						

	2019	
	Amount	% of Total Liabilities
Recognized Obligation to Return Collateral Assets (General Account)	\$ 1,231	0.53 %
Recognized Obligation to Return Collateral Asset (Separate Account)	\$ 32	0.07 %

The Company receives primarily cash collateral for derivatives. The Company reinvests the cash collateral or uses the cash for general corporate purposes.

Note 12 - Derivative Financial Instruments

The Company uses derivative instruments for economic hedging and asset replication purposes. The Company does not engage in derivative financial instrument transactions for speculative purposes. The Company does not enter into derivative financial instruments with financing premiums.

Counterparty and Credit Risk: Derivative financial instruments used by the Company may be exchange-traded or contracted in the over-the-counter market ("OTC"). The Company's OTC derivative transactions are cleared and settled through central clearing counterparties ("OTC-cleared") or through bilateral contracts with other counterparties ("OTC-bilateral"). Should an OTC-bilateral counterparty fail to perform its obligations under contractual terms, the Company may be exposed to credit-related losses. The current credit exposure of the Company's derivatives is limited to the net positive fair value of derivatives at the reporting date, after taking into consideration the existence of netting agreements and any collateral received. All of the credit exposure for the Company from OTC-bilateral contracts is with investment grade counterparties. The Company also monitors its counterparty credit quality on an ongoing basis.

The Company currently has International Swaps and Derivatives Association ("ISDA") master swap agreements in place with each derivative counterparty relating to OTC transactions. In addition to the ISDA agreement, Credit Support Annexes ("CSA"), which are bilateral collateral agreements, are put in place with a majority of the Company's derivative OTC-bilateral counterparties. The CSAs allow the Company's mark-to-market exposure to a counterparty to be collateralized by the posting of cash or highly liquid U.S. government securities. The Company also exchanges cash and securities margin for derivatives traded through a central clearinghouse. As of December 31, 2020 and 2019, counterparties pledged \$356 million and \$908 million, respectively, of cash collateral and margin to the Company.

The Company must also post collateral or margin to the extent its net position with a given counterparty or clearinghouse is at a loss relative to the counterparty. As of December 31, 2020 and 2019, the Company pledged the following collateral and margin to its counterparties (in millions):

	December 31,						
		2020		2019			
Cash collateral and margin	\$	253	\$	20			
Securities collateral and margin	\$	9	\$	5			

The amount of accounting loss the Company will incur if any party to the derivative contract fails completely to perform according to the terms of the contract and the collateral or other security, if any, for the amount due proved to be of no value to the Company is equal to the gross asset value and accrued interest receivable of all derivative contracts which, as of December 31, 2020 and 2019, were \$713 million and \$876 million, respectively.

Certain of the Company's master swap agreements governing its derivative instruments contain provisions that require the Company to maintain a minimum credit rating from two of the major credit rating agencies. If the Company's credit rating falls below the specified minimum, each of the counterparties to agreements with such requirements could terminate all outstanding derivative transactions between such counterparty and the Company. The termination requires immediate payment of amounts expected to approximate the net liability positions of such transactions with such counterparty. The aggregate fair value of all derivative instruments with credit-risk-related contingent features in a liability position on December 31, 2020 and 2019 were \$265 million and \$30 million, respectively, for which the Company posted collateral of \$253 million and \$20 million, respectively, through the normal course of business.

Derivative Types: The Company utilizes the following types of derivative financial instruments and strategies within its portfolio:

Interest Rate Swaps: The Company enters into interest rate swap contracts to economically hedge against the effect of interest rate fluctuations on certain variable interest rate bonds. The Company does not apply hedge accounting for these derivatives instruments.

Foreign Currency Swap Contracts: The Company enters into foreign currency swap contracts to exchange fixed and variable amounts of foreign currency at specified future dates and at specified rates (in U.S. dollars) as a cash flow hedge to manage currency risks on investments denominated in foreign currencies. The Company applies hedge accounting to certain of these derivatives instruments and fair value accounting to the majority of these derivatives instruments.

Foreign Currency Forward Contracts: The Company enters into foreign currency forward contracts to exchange foreign currency at specified future dates and at specified rates (in U.S. dollars) to manage currency risks on investments denominated in foreign currencies. The Company does not apply hedge accounting for these derivatives instruments.

Purchased Credit Default Swap Contracts: The Company purchases credit default swaps to hedge against unexpected credit events on selective investments held in the Company's investment portfolio. The Company pays a periodic fee in exchange for the right to put the underlying investment back to the counterparty at par upon a credit event by the underlying referenced issuer. Credit events are typically defined as bankruptcy, failure to pay, or certain types of restructuring. The Company does not apply hedge accounting for these derivatives instruments.

Written Credit Default Swaps used in Replication Transactions: Credit default swaps are used by the Company in conjunction with long-term bonds as replication synthetic asset transactions ("RSAT"). RSATs are derivative transactions (the derivative component) established concurrently with other investments (the cash component) in order to "replicate" the investment characteristics of another permissible instrument (the reference entity). The Company sells credit default swaps on single name corporate or sovereign credits, credit indices, or credit index tranches and provides credit default protection to the buyer. Events or circumstances that would require the Company to perform under a written credit default swap may include, but are not limited to, bankruptcy,

failure to pay, debt moratorium, debt repudiation, debt restructuring, or default. The Company does not apply hedge accounting for these derivatives instruments.

Asset Swaps: The Company enters into asset swap contracts to hedge against inflation risk associated with its U.S. Treasury Inflation Protected Securities (TIPS). The Company also uses asset swap contracts in certain RSATs. For hedges of its TIPS, the Company pays all cash flows received from the TIPS security to the counterparty in exchange for fixed interest rate coupon payments. The Company applies hedge accounting for asset swaps used in hedging transactions, and does not apply hedge accounting for asset swaps used in RSATs.

Total Return Swaps: The Company enters into total return swap contracts in conjunction with long-term bonds as part of its RSAT strategy. The Company does not apply hedge accounting for these derivatives instruments.

Commodity Forward Contracts: The Company enters into forward contracts to sell crude oil at a specified price on a specified future date in order to economically hedge against the effect of fluctuations in crude oil prices on certain equity investments held in its investment portfolio. The Company does not apply hedge accounting for these derivatives instruments.

The table below illustrates the change in net unrealized capital gains and losses and realized capital gains and losses from derivative instruments. Instruments utilizing hedge accounting treatment are shown as qualifying hedge relationships. Instruments that utilize fair value accounting are shown as non-qualifying hedge relationships. Derivatives used in replication strategies are shown as derivatives used for other than hedging purposes (in millions):

	December 31, 2020					December	r 31,	2019		Decembe	r 31, :	31, 2018	
	Change in Net Unrealized Capital Gain (Loss)		Net		Change in Net Unrealized Capital Gain (Loss)		Net Realized Capital Gain (Loss)		Change in Net Unrealized Capital Gain (Loss)		Net Realized Capital Gain (Loss)		
Qualifying hedge relationships													
Foreign currency swap contract	\$	(133)	\$	(1)	\$	(19)	\$	(5)	\$	19	\$	(2)	
Total qualifying hedge relationships		(133)		(1)		(19)		(5)		19		(2)	
Non-qualifying hedge relationships													
Commodity forwards		_		_		_		_		18		(24)	
Foreign currency swaps		(253)		112		(17)		22		493		15	
Foreign currency forwards		(76)		(125)		(71)		108		115		47	
Interest rate contracts		9		_		8		_		1		_	
Purchased credit default swaps						_				4		(1)	
Total non-qualifying hedge relationships	\$	(320)	\$	(13)	\$	(80)	\$	130	\$	631	\$	37	
Derivatives used for other than hedging purposes				15				7				23	
Total derivatives	\$	(453)	\$	1	\$	(99)	\$	132	\$	650	\$	58	

Events or circumstances that would require the Company to perform under a written credit derivative position may include, but are not limited to, bankruptcy, failure to pay, debt moratorium, debt repudiation, restructuring of debt and acceleration, or default. The maximum potential amount of future payments (undiscounted) the Company could be required to make under the credit derivative is represented by the notional amount of the contract. Should a credit event occur, the amounts owed to a counterparty by the Company may be subject to recovery provisions that include, but are not limited to:

- 1. Notional amount payment by the Company to Counterparty and/or delivery of physical security by Counterparty to the Company.
- 2. Notional amount payment by the Company to Counterparty net of contractual recovery fee.
- 3. Notional amount payment by the Company to Counterparty net of auction determined recovery fee.

The Company will record an other-than-temporary impairment loss on a derivative position if an existing condition or set of circumstances indicates there is a limited ability to recover an unrealized loss.

The Company enters into replication transactions whereby credit default swaps have been written by the Company on credit indices, credit index tranches, or single name corporate or sovereign credits. Credit index positions represent replications where credit default swaps have been written by the Company on the Dow Jones North American Investment Grade Series of indexes (DJ.NA.IG). Each index is comprised of 125 liquid investment grade credits domiciled in North America and represents a broad exposure to the investment grade corporate market. Index positions also represent replications where credit default swaps have been written by the Company on the Dow Jones North American High Yield Series of indexes (DJ.NA.HY). Each index is comprised of 100 high yield credits domiciled in North America and represents a broad exposure to the high yield corporate market.

The Company writes contracts on the "Senior" tranche of the Dow Jones North American Investment Grade Index Series 25, 27, 29, 31 and 33 (DJ.NA.IG.25, DJ.NA.IG.27, DJ.NA.IG.29, DJ.NA.IG.31 and DJ.NA.IG.33, respectively), whereby the Company is obligated to perform should the default rates of each index fall between 7%-15%. The Company also writes contracts on the "Super Senior" tranche of the Dow Jones North American High Yield Index Series 27 and 31 (DJ.NA.HY.27 and DJ.NA.HY.31, respectively), whereby the Company is obligated to perform should the default rates of each index fall between 35%-100%. The maximum potential amount of future payments (undiscounted) the Company could be required to make under these positions is represented by the notional amount of the contracts.

Information related to the credit quality of replication positions involving credit default swaps appears below. The values below are listed in order of their NAIC credit designation, with a designation of 1 having the highest credit quality based on the underlying asset referenced by the credit default swap (in millions):

			De	ecen	nber 31, 202	20	December 31, 2019						
RSAT NAIC Designation			CDS otional mount	CDS Estimated Fair Value		Weighted Average Years to Maturity	CDS Notional Amount		CDS Estimated Fair Value	Weighted Average Years to Maturity			
1	Single name credit default swaps	\$	_	\$	_	_	\$	_	\$ —	_			
Highest quality	Credit default swaps on indices		9,167		468	4		8,725	530	3			
	Subtotal		9,167		468	4		8,725	530	3			
2 Liab	Single name credit default swaps		_		_	_		_	_	_			
High quality	Credit default swaps on indices		_		_			_	_				
	Subtotal		_		_	_		_	_	_			
3	Single name credit default swaps		_		_	_		_	_	_			
Medium quality	Credit default swaps on indices		_		_	_		_	_	_			
	Subtotal		_		_	_		_	_	_			
	Total	\$	9,167	\$	468	4	\$	8,725	\$ 530	3			

The table below illustrates derivative asset and liability positions held by the Company, including notional amounts, carrying values and estimated fair values. Instruments utilizing hedge accounting treatment are shown as qualifying hedge relationships. Hedging instruments that utilize fair value accounting are shown as non-qualifying hedge relationships. Derivatives used in replication strategies are shown as derivatives used for other than hedging purposes.

Summary of Derivative Positions											
					(in mil	illions)					
_	Dec	cem	ber 31,	, 2020		De		cember 31		, 2019	
N	otional	Ca ۱	rrying /alue	Es	timated FV	N	otional	Car Va	rying alue	Esti	mated FV
\$	_	\$	_	\$	_	\$		\$	_	\$	_
	1,210		_		(182)		1,210		_		(18)
	37		3		5		274		9		11
_	1,942				(157)	_	882		(32)		(26)
\$	3,189	\$	(155)	\$	(334)	\$	2,366	\$	(23)	\$	(33)
\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
	_		_		_		_		_		_
	166		21		20		116		12		12
	_		_		_		_		_		_
	2,946		240		240		4,550		383		383
	3,163		(234)		(234)		2,451		(124)		(124)
	148		_		_		789		13		13
	4,584		(104)		(104)		2,293		(40)		(40)
	_		_		_		_		_		_
_	144		(2)		(2)		146		(3)		(3)
\$	11,151	\$	(79)	\$	(80)	\$	10,345	\$	241	\$	241
\$	9,067	\$	363	\$	467	\$	8,725	\$	378	\$	530
	100		(2)		1		_		_		_
	10		_		(1)		10		_		_
	_		_		_		_		_		_
\$	9,177	\$	361	\$	467	\$	8,735	\$	378	\$	530
\$	23.517	\$	127	\$	53	\$	21.446	\$	596	\$	738
	\$ \$	Notional \$ — 1,210 37 1,942 \$ 3,189 \$ — 166 — 2,946 3,163 148 4,584 — 144 \$ 11,151 \$ 9,067 100 — \$ 9,177	Notional Control \$ — \$ 1,210 37 1,942 \$ \$ 3,189 \$ \$ \$ — \$ 166 — 2,946 3,163 148 4,584 — 144 \$ 11,151 \$ \$ \$ 9,067 \$ 100 —	December 31, Notional Carrying Value \$ — — 1,210 — 37 3 1,942 (158) \$ 3,189 \$ (155) \$ — — 166 21 — — 2,946 240 3,163 (234) 148 — 4,584 (104) — — 144 (2) \$ 11,151 \$ (79) \$ 9,067 \$ 363 100 — — — \$ 9,177 \$ 361	December 31, 202 Notional Carrying Value Es \$ — \$ — \$ 1,210 — \$ 1,210 — \$ 1,942 (158) \$ 3,189 \$ (155) \$ \$ 166 21 — — \$ — \$ — \$ — \$ 166 240 3,163 (234) 148 — 4,584 (104) — 144 (2) \$ 11,151 \$ (79) \$ \$ \$ \$ 100 \$ 9,067 \$ 363 \$ 100 \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 — — \$ 100 —	Cin mile	Notional Carrying Estimated FV Notional Notional Section Notional Carrying Estimated FV Notional Section Sec	(in millions) December 31, 2020 December 31, 2020 Notional Carrying FV Estimated FV Notional \$ — \$ — \$ — \$ — 1,210 — (182) 1,210 37 3 5 274 1,942 (158) (157) 882 \$ 3,189 \$ (155) \$ (334) \$ 2,366 \$ — \$ — \$ — \$ — — — — — — 166 21 20 116 — — — — — 2,946 240 240 4,550 3,163 (234) 2,3451 148 — — 789 4,584 (104) (104) 2,293 — — — — — — — — — — 144 (2) (2) 146 \$ 11,151 \$ (79) \$ (80) \$ 10,345 \$ 9,067 \$ 363 \$ 467 \$ 8,725 100 (2) 1 — 10 — (1) 10 — — — — \$ 9,177 \$ 361 \$ 467 \$ 8,735	Carrying Estimated FV Notional Carrying FV	Carrying Estimated FV Notional Carrying FV Notional Carrying Carrying FV Notional Carrying Carrying Carrying Notional Carrying Carrying Carrying Notional Carrying Carrying Notional Carrying Carrying Notional Carrying Notional Carrying Notional Carrying Notional Carrying Notional Carrying Notional Carrying Carrying Notional Carrying Noti	Image: color problem of the color pr

For the year ended December 31, 2020 and 2019, the average fair value of derivatives used for other than hedging purposes, was \$411 million and \$521 million.

Note 13 - Separate Accounts

The TIAA Separate Account VA-1 ("VA-1") is a segregated investment account established on February 16, 1994 under the insurance laws of the State of New York for the purpose of issuing and funding after-tax variable annuity contracts for employees of non-profit institutions organized in the United States, including governmental institutions. VA-1 is registered with the Securities and Exchange Commission, (the "Commission") effective November 1, 1994 as an open-end, diversified management investment company under the Investment Company Act of 1940. VA-1 consists of a single investment portfolio, the Stock Index Account ("SIA"). The SIA was established on October 3, 1994 and invests in a diversified portfolio of equity securities selected to track the overall market for common stocks publicly traded in the United States.

The TIAA Real Estate Account ("REA" or "VA-2") is a segregated investment account organized on February 22, 1995, under the insurance laws of the State of New York for the purpose of providing an investment option to TIAA's pension customers to direct investments to an investment vehicle that invests primarily in real estate. VA-2 is registered with the Commission under the Securities Act of 1933 effective October 2, 1995. VA-2's target is to invest between 75% and 85% of its assets directly in real estate or in real estate-related investments, with the remainder of its assets invested in publicly-traded securities and other instruments easily converted to cash to maintain adequate liquidity.

The TIAA Separate Account VA-3 ("VA-3") is a segregated investment account organized on May 17, 2006 under the laws of the State of New York for the purposes of funding individual and group variable annuities for retirement plans of employees of colleges, universities, other educational and research organizations, and other governmental and non-profit institutions. VA-3 is registered with the Commission as an investment company under the Investment Company Act of 1940, effective September 29, 2006, and operates as a unit investment trust.

The TIAA Stable Value Separate Account ("TSV") is an insulated, non-unitized separate account established on March 31, 2010 qualifying under New York Insurance Law 4240(a)(5)(ii). The separate account supports a flexible premium group deferred fixed annuity contract intended to be offered to employer sponsored retirement plans. The assets of this account are carried at book value.

In accordance with the domiciliary state procedures for approving items within the separate accounts, the separate accounts classification of the following items are supported by a specific state statute:

Product Identification	Product Classification	State Statute Reference
TIAA Separate Account VA-1	Variable annuity	Section 4240 of the New York Insurance Law
TIAA Real Estate Account	Variable annuity	Section 4240 of the New York Insurance Law
TIAA Separate Account VA-3	Variable annuity	Section 4240 of the New York Insurance Law
TIAA Stable Value	Group deferred fixed annuity	Section 4240(a)(5)(ii) of the New York Insurance Law

The legal insulation of the separate account assets prevents such assets from being generally available to satisfy claims resulting from the general account.

The Company's separate account statement includes legally insulated assets as of December 31 attributed to the following products (in millions):

Product	2	020	2019			
TIAA Real Estate Account	\$	23,458	\$	27,803		
TIAA Separate Account VA-3		15,658		13,239		
TIAA Separate Account VA-1		1,218		1,112		
TIAA Stable Value		2,472		1,673		
Total	\$	42,806	\$	43,827		

In accordance with the products recorded within the separate accounts, some separate account liabilities are guaranteed by the general account. In accordance with the guarantees provided, if the investment proceeds are

insufficient to cover the rate of return guaranteed for the product, the policyholder proceeds will be remitted by the general account.

The general account provides the REA with a liquidity guarantee to ensure it has funds available to meet participant transfer or cash withdrawal requests. When the REA cannot fund participant requests, the general account will fund the requests by purchasing accumulation units in the REA. Under this agreement, the Company guarantees participants will be able to redeem their accumulation units at their accumulation unit value determined after the transfer or withdrawal request is received in good order.

Additional information regarding separate accounts of the Company is as follows for the years ended December 31, (in millions):

Non-

indexed

Guarantee

less than/

2020

Nonguaranteed

Separate

Non-

indexed

Guarantee

more than

	equ	al to 4%		1%		ccounts		Total		
Premiums, considerations or deposits	\$	1,215	\$	_	\$	4,077	\$	5,292		
Reserves										
For accounts with assets at:										
Fair value	\$	_	\$	_	\$	40,105	\$	40,105		
Amortized cost		2,385						2,385		
Total reserves	\$	2,385	\$		\$	40,105	\$	42,490		
By withdrawal characteristics:										
Subject to discretionary withdrawal:										
At book value without market value adjustment and with current surrender charge of 5% or less*	\$	2,385	\$	_	\$	_	\$	2,385		
At fair value		_		_		40,105		40,105		
Total reserves	\$	2,385	\$	_	\$	40,105	\$	42,490		
*Withdrawable at book value without adjustment of	or charg	je.								
				20	19					
		Non-			113					
			exed indexed antee Guarantee than/ more than			Non- uaranteed Separate Accounts				
	Gu: les	dexed arantee s than/ al to 4%	Gua mor	rantee	Š	aranteed eparate		Total		
Premiums, considerations or deposits	Gu: les	arantee s than/	Gua mor	rantee e than	Š	aranteed eparate	\$	Total 5,186		
Premiums, considerations or deposits Reserves	Gu les equ	arantee s than/ al to 4%	Gua mor	rantee e than	S	aranteed eparate ccounts	\$			
·	Gu les equ	arantee s than/ al to 4%	Gua mor	rantee e than	S	aranteed eparate ccounts	\$			
Reserves	Gu les equ	arantee s than/ al to 4%	Gua mor	rantee e than	S	aranteed eparate ccounts	\$			
Reserves For accounts with assets at:	Gu les equ \$	arantee s than/ al to 4%	Gua mor \$	rantee e than	\$ \$	aranteed eparate ccounts 4,475		5,186		
Reserves For accounts with assets at: Fair value	Gu les equ \$	arantee s than/ al to 4% 711	Gua mor \$	rantee e than	\$ \$	aranteed eparate ccounts 4,475		5,186 41,653		
Reserves For accounts with assets at: Fair value Amortized cost	Guiles equi \$	711 	\$	rantee e than	\$ \$	aranteed eparate ccounts 4,475 41,653	\$	5,186 41,653 1,606		
Reserves For accounts with assets at: Fair value Amortized cost Total reserves	Guiles equi \$	711 	\$	rantee e than	\$ \$	aranteed eparate ccounts 4,475 41,653	\$	5,186 41,653 1,606		
Reserves For accounts with assets at: Fair value Amortized cost Total reserves By withdrawal characteristics:	Guiles equi \$	711 	\$	rantee e than	\$ \$	aranteed eparate ccounts 4,475 41,653	\$	5,186 41,653 1,606		
Reserves For accounts with assets at: Fair value Amortized cost Total reserves By withdrawal characteristics: Subject to discretionary withdrawal: At book value without market value adjustment and with current surrender	Guiles equil	711	\$ \$	rantee e than	\$ \$ \$ \$	aranteed eparate ccounts 4,475 41,653	\$	5,186 41,653 1,606 43,259		
Reserves For accounts with assets at: Fair value Amortized cost Total reserves By withdrawal characteristics: Subject to discretionary withdrawal: At book value without market value adjustment and with current surrender charge of 5% or less*	Guiles equi	711	\$ \$	rantee e than	\$ \$ \$ \$	41,653 41,653	\$	5,186 41,653 1,606 43,259		

	2018										
	in Gu les	Non- dexed arantee s than/ al to 4%	ind Gua mo	Non- indexed suaranteed guaranteed separate 4% Accounts				Total			
Premiums, considerations or deposits	\$	459	\$	_	\$	4,376	\$	4,835			
Reserves											
For accounts with assets at:											
Fair value	\$	_	\$	_	\$	36,703	\$	36,703			
Amortized cost		1,205						1,205			
Total reserves	\$	1,205	\$		\$	36,703	\$	37,908			
By withdrawal characteristics:											
Subject to discretionary withdrawal:											
At book value without market value adjustment and with current surrender charge of 5% or less*	\$	1,205	\$	_	\$	_	\$	1,205			
At fair value						36,703		36,703			
Total reserves	\$	1,205	\$ _		\$ 36,703		\$	37,908			

^{*}Withdrawable at book value without adjustment or charge.

The following is a reconciliation of transfers to (from) the Company to the separate accounts for the years ended December 31, (in millions):

	2020		2019		2018	
Transfers reported in the Summary of Operations of the separate accounts statement:						
Transfers to separate accounts	\$	5,631	\$	5,513	\$	5,124
Transfers from separate accounts		(8,343)		(4,355)		(4,682)
Reconciling adjustments:						
Fund transfer exchange gain (loss)		(1)				
Transfers reported in the Summary of Operations of the Life, Accident & Health Annual Statement	\$	(2,713)	\$	1,158	\$	442

Note 14 – Policy and Contract Reserves

Policy and contract reserves are determined in accordance with standard valuation methods approved by the Department and are computed in accordance with standard actuarial methodology. The reserves are based on assumptions for interest, mortality and other risks insured.

For annuities and supplementary contracts, policy and contract reserves are calculated using Commissioner's Annuity Reserve Valuation Method ("CARVM") in accordance with New York State Regulation 151 and Actuarial Guideline 33 for all other products.

Effective January 1, 2020 variable annuity reserving follow VM-21. During 2020, the Company elected the factor based alternative method under VM-21, which is an option allowed for variable annuity writers with no living benefits. This method is similar to the factor based alternative method used prior to 2020 in accordance with AG43. Given the similar methodology under VM-21 and AG43, there was no impact from the change in the reserve valuation basis. Effective December 31, 2020 reserves were also subject to the NYDFS floor prescribed under NYDFS Regulation 213, Principle-Based Reserving. The Company's reported reserve for variable annuities as of December 31, 2020 is the greater of those prescribed under VM-21 and Regulation 213.

The Company has established policy reserves on deferred and payout annuity contracts issued January 1, 2001 and later that exceed the minimum amounts determined under Appendix A-820, "Minimum Life and Annuity Reserve Standards" of NAIC SAP. The excess above the minimum is as follows (in millions):

Deferred and payout annuity contracts issued after 2000

December 31, 2020

December 31, 2019

4,118

4,156

The Company performed asset adequacy analysis in order to test the adequacy of its reserves in light of the assets supporting such reserves. This analysis reflected the requirements of the NYDFS Special Considerations Letter, which specifies certain requirements related to reserves and asset adequacy analysis. The Company determined that its reserves are sufficient to meet its obligations for the years ending December 31, 2020 and 2019.

For ordinary and collective life insurance, reserves for all policies are calculated in accordance with New York State Insurance Regulation 147. Reserves for regular life insurance policies are computed by the Net Level Premium method for issues prior to January 1, 1990, and by the Commissioner's Reserve Valuation Method for the vast majority of issues on and after such date. Five-year renewable term policies issued on or after January 1, 1994 use the greater of unitary and segmented reserves, where each segment is equal to the term period. Annual renewable term policies and cost of living riders issued on and after January 1, 1994 uses the segmented reserves, where each segment is equal to one year in length.

Liabilities for incurred but not reported life insurance claims and disability waiver of premium claims are based on historical experience and set equal to a percentage of paid claims. Reserves for amounts not yet due for incurred but not reported disability waiver of premium claims are a percentage of the total active lives disability waiver of premium reserve.

As of December 31, 2020 and 2019, the Company had \$236 million and \$285 million, respectively, of insurance in force for which the gross premiums were less than the net premiums according to the standard of valuation set by the Department.

The Tabular Interest, Tabular Less Actual Reserve Released and Tabular Cost are determined by formulae as prescribed by the NAIC except for deferred annuities, for which tabular interest is determined from the basic data.

Withdrawal characteristics of individual annuity reserves, group annuity reserves, and deposit-type contract funds for the years ended December 31, are as follows (in millions):

		G
INDIVIDUAL ANNUITIES:		_A
Subject to Discretionary Withdrawal:		
At fair value		\$
At book value without adjustment (m	ninimal or no charge or adjustment)	;
Not subject to discretionary withdrawal		_1
Total (direct + assumed)		\$1
Reinsurance ceded		
Total (net)		\$1

		2020		
General Account	Account with Account		Total	% of Total
\$ —	\$ —	\$ 22,799	9 \$ 22,799	12.0 %
32,869	_	_	- 32,869	17.4 %
133,749	_	_	- 133,749	70.6 %
\$166,618	\$ —	\$ 22,799	\$189,417	100.0 %
	_	_	- –	
\$166,618	\$ —	\$ 22,799	\$189,417	-

					2	2019		
INDIVIDUAL ANNUITIES:		eneral ccount	Αc	Separate count with uarantees	No	Separate Account onguaranteed	Total	% of Total
Subject to Discretionary Withdrawal:	_			- darantooo		nguarantoou		
At fair value	\$	_	\$	_	\$	24 890	\$ 24,890	13.1 %
At book value without adjustment (minimal or no charge or adjustment)		31,760	Ψ	_	Ψ	24,030	31,760	16.8 %
Not subject to discretionary withdrawal		32,718		_			132,718	70.1 %
Total (direct + assumed)	_	64,478	Φ.		\$	24,890		
Reinsurance ceded	ΨΙ	04,470	Ψ		Ψ	24,030	ψ109,500	100.0 /0
Total (net)	<u>\$ 1</u>	64,478	Φ.		\$	24,890	\$189,368	-
rotal (liet)	=	04,470	φ				\$109,300	<u> </u>
						2020		
		Seneral		Separate ccount with		Separate Account	Total	% of
GROUP ANNUITIES:	Α	ccount		Suarantees	No	onguaranteed	Total	Total
Subject to Discretionary Withdrawal:								,
At fair value	\$	_	\$	_	\$	17,293	\$ 17,293	22.9 %
At book value without adjustment (minimal or no charge or adjustment)		32,096		2,378		_	34,474	45.6 %
Not subject to discretionary withdrawal		23,833		_		_	23,833	31.5 %
Total (direct + assumed)	\$	55,929		2,378	\$	17.293	\$ 75,600	
Reinsurance ceded	,	_	•	_	•	_	_	
Total (net)	\$	55,929	\$	2,378	\$	17.293	\$ 75,600	-
	Ė	,	_	=,,,,,			+	=
	Ш			Canarata		2019		
		eneral ccount		Separate count with		Separate Account	Total	% of Total
GROUP ANNUITIES:		ccount	G	uarantees	No	nguaranteed		IOlai
Subject to Discretionary Withdrawal:								
At fair value	\$	_	\$	_	\$	16,750	\$ 16,750	24.3 %
At book value without adjustment (minimal or no charge or adjustment)		27,897		1,598		_	29,495	42.9 %
Not subject to discretionary withdrawal		22,559		_		_	22,559	32.8 %
Total (direct + assumed)	\$	50,456	\$	1,598	\$	16,750	\$ 68,804	100.0 %
Reinsurance ceded		_		_		_	_	
Total (net)	\$	50,456	\$	1,598	\$	16,750	\$ 68,804	
	\equiv					2020		<u> </u>
	_	1		Separate		Separate		0/ - 5
DEPOSIT-TYPE CONTRACTS: (no life contingencies)	_	eneral ccount	Αc	count with juarantees	No	Account onguaranteed	Total	% of Total
Subject to Discretionary Withdrawal:								
At fair value	\$	_	\$	_	\$	12	\$ 12	0.4 %
At book value without adjustment (minimal or no charge or adjustment)		1,172		7		_	1,179	36.0 %
Not subject to discretionary withdrawal		2,082		_			2,082	63.6 %
Total (direct + assumed)	\$	3,254	\$	7	\$	12	\$ 3,273	100.0 %
Reinsurance ceded				_			_	-
Total (net)	\$	3,254	\$	7	\$	12	\$ 3,273	:
					2	2019		
	G	eneral		Separate		Separate	.	% of
DEPOSIT-TYPE CONTRACTS: (no life contingencies)		ccount		count with uarantees	Nor	Account nguaranteed	Total	Total
Subject to Discretionary Withdrawal:						J		
At fair value	\$	_	\$	_	\$	14	\$ 14	0.8 %
At book value without adjustment (minimal or no charge or adjustment)	4	1,140	*	7	*	_	1,147	70.8 %
Not subject to discretionary withdrawal		460		_		_	460	28.4 %
Total (direct + assumed)	\$	1,600	\$	7	\$	14	\$ 1,621	100.0 %
Reinsurance ceded		_		_		_		
Total (net)	\$	1,600	\$	7	\$	14	\$ 1,621	
	_							

Note 15 - Management Agreements

Under Cash Disbursement and Reimbursement Agreements, the Company serves as the common pay-agent for certain subsidiaries and affiliates. Under management agreements, the Company provides investment advisory and administrative services for TIAA Life and administrative services to TIAA, FSB ("the Bank") and VA-1. Additionally, the Company entered into a General Service and Facilities Agreements with Nuveen, LLC, for the Company to provide and receive general services at cost inclusive of charges for overhead.

As the common pay-agent, the Company allocated expenses of \$1,894 million, \$2,002 million and \$2,122 million to its various subsidiaries and affiliates for the years ended December 31, 2020, 2019 and 2018, respectively. The expense allocation process determines the portion of the operating expenses attributable to each legal entity based on defined allocation methodologies. These methodologies represent either shared or direct costs depending on the nature of the service provided. At the completion of the allocation process all expenses are assigned to a legal entity.

Activities necessary for the operation of the College Retirement Equities Fund ("CREF"), a companion organization of TIAA, are provided at-cost by the Company and two of its subsidiaries, TIAA-CREF Investment Management, LLC ("TCIM") and TIAA-CREF Individual and Institutional Services, LLC ("TC Services"). Such services are provided in accordance with an Administrative Service Agreement between CREF and the Company, an Investment Management Agreement between CREF and TCIM, and a Principal Underwriting and Distribution Services Agreement between CREF and TC Services (collectively the "CREF Agreements"). The Company is the common pay-agent for CREF and TC Services. The Company collects the distribution expense reimbursements from CREF and then remits those payments to TC Services. The administration and investment expenses incurred by the Company are included in operating expenses and offset against the related expense reimbursements received from CREF and Nuveen Services, respectively. The expense reimbursements under the CREF Agreements and the equivalent expenses, amounted to approximately \$610 million, \$566 million, and \$613 million for the years ended December 31, 2020, 2019 and 2018, respectively.

TC Services maintains a Distribution Agreement with the Company under which TC Services is the principal underwriter and distributor for variable annuities issued by the Company. TC Services also maintains a Distribution Agreement with the Company under which TC Services is the distributor for proprietary and non-proprietary mutual funds. Such activities performed by TC Services are on a cost reimbursement basis. The Company paid \$274 million, \$259 million and \$190 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Effective February 2019, the Company renewed a General Service Agreement whereby the Company provides general administrative services such as technology, marketing, finance, corporate overhead and individual advisory services to the Bank. Expense allocations to the Bank were \$91 million, \$105 million, and \$109 million for the years ended December 31, 2020, 2019, and 2018, respectively.

Teachers Advisors, LLC ("Advisors") provides investment advisory services for VA-1, certain proprietary funds and other separately managed portfolios in accordance with investment management agreements. Nuveen Securities, LLC ("Securities"), an indirect subsidiary of Nuveen, LLC, and TC Services distribute variable annuity contracts for VA-1, REA and VA-3 as well as registered securities for certain proprietary funds and non-proprietary mutual funds.

January 1, 2018, the Company entered into Investment Management Agreements with Advisors and Nuveen Alternatives Advisors, LLC, wholly-owned subsidiaries of Nuveen, LLC, to manage, at a negotiated fee, investments held within the Company's General Account including investments owned by investment subsidiaries of the Company. The Company paid \$210 million, \$215 million and \$219 million to Advisors and \$269 million, \$233 million and \$212 million to Nuveen Alternatives Advisers, LLC, for the years ended December 31, 2020, 2019 and 2018, respectively.

January 1, 2018, the Company entered into an Omnibus Service Agreement with Nuveen, LLC, pursuant to which Nuveen, LLC directly or through its subsidiaries agreed to provide services complementary to investment management to the Company at cost, inclusive of charges for overhead. The Company paid \$7 million to Nuveen, LLC for each of the years ended December 31, 2020, 2019 and 2018.

Effective January 1, 2019, the Company entered into a sublease agreement for certain leases and leasehold improvements with Nuveen Services, LLC. The Company makes the applicable lease payments on behalf of Nuveen Services, LLC and then allocates those costs. Under the sublease agreement, the Company allocated \$16 million and \$15 million to Nuveen Services, LLC for the years ended December 31, 2020 and 2019, respectively.

All services necessary for the operation of the REA are provided at-cost by the Company and TC Services. The Company provides investment management and administrative services for the REA in accordance with an Investment Management and Administrative Agreement. Distribution services for the REA are provided in accordance with a Distribution Agreement among TC Services, the Company and the REA (collectively the "Agreements"). The Company and TC Services receive payments from the REA on a daily basis according to formulae established annually and adjusted periodically for performance of these Agreements. The daily fee is based on an estimate of the at-cost expenses necessary to operate the REA and is based on projected REA expense and asset levels, with the objective of keeping the fees as close as possible to actual expenses attributable to operating the REA. At the end of each quarter, any differences between the daily fees paid and actual expenses for the quarter are added to or deducted from REA's fee in equal daily installments over the remaining days in the immediately following quarter. Reimbursements collected under the Agreements amounted to approximately \$140 million, \$150 million, and \$141 million for the periods ended December 31, 2020, 2019 and 2018, respectively.

Effective February 2018, the Company entered into a Service Agreement with the Bank, whereby the Bank provides general services in support of the Company's and its subsidiaries' activities at cost inclusive of charges for overhead. The Company paid \$7 million, \$11 million and \$6 million to the Bank for the years ended December 31, 2020, 2019 and 2018, respectively.

The Bank services certain residential mortgage loans held by the Company. As of December 31, 2020 and 2019, the Company held \$487 million and \$734 million of residential mortgage loans serviced by the Bank, respectively.

The Company has a Cash Disbursement and Reimbursement Agreement with Nuveen Investments, an indirect subsidiary of Nuveen, LLC, whereby the Company provides cash disbursements and related services at cost. The Company allocated \$118 million, \$119 million, and \$112 million to Nuveen Investments for the years ended December 31, 2020, 2019, and 2018, respectively.

The Company has a Cash Disbursement and Reimbursement Agreement with TIAA Endowment and Philanthropic Services ("TEPS"), an indirect subsidiary of TIAA, whereby the Company provides cash disbursements and related services at cost. The Company allocated \$52 million, \$63 million, and \$64 million to TEPS for the years ended December 31, 2020, 2019, and 2018, respectively.

The Company has a Cash Disbursement and Reimbursement Agreement with TIAA-CREF Tuition Financing, Inc. ("TFI"), a subsidiary of the Company, whereby the Company provides cash disbursements and related services at cost. The Company allocated \$83 million, \$72 million, and \$81 million to TFI for the years ended December 31, 2020, 2019, and 2018, respectively.

The Company has a Service Agreement with TIAA India, an indirect wholly-owned subsidiary of the Company, whereby TIAA India provides information technology and non-technology services for the Company and its affiliates. The Company paid \$74 million, \$68 million, and \$56 million to TIAA India for the years ended December 31, 2020, 2019, and 2018, respectively.

Effective March 2018, the Company entered into a Technology Support and Services Agreement with MyVest Corporation ("MyVest"), a wholly-owned subsidiary of the Company, whereby MyVest provides project and program management services for the Company. The Company paid \$30 million, \$28 million, and \$21 million to MyVest for the years ended December 31, 2020, 2019, and 2018, respectively. Effective December 2018, the Company agreed to provide MyVest administrative services for use in its day to day operations. MyVest reimbursed the Company for administrative services in the amount of \$1 million for each of the years ended December 31, 2020 and 2019 and had no reimbursements for the year ended December 31, 2018.

The Bank provides Custody and Trustee Services for TIAA Institutional Retirement, Retiree Health and Retirement Choice Plus Plans as well as perform IRA Custodial services for an IRA and Investment Solutions IRA Agreements which is paid by bank fees. The Company paid \$6 million, \$5 million, and \$5 million to the Bank for the years ended December 31, 2020, 2019, and 2018, respectively.

Effective January 1, 2021, the Company entered into a service and subcontracting agreement with TIAA Shared Services, LLC ("TSS"), a wholly-owned subsidiary of the Company. Under the agreement, TSS will serve as an internal administrative service provider for the Company as well as for CREF and the Company's affiliates with existing administrative services agreements with the Company. The Company will pay to TSS compensation it receives (and TSS will reimburse the Company for disbursements it makes) relating to the provision of administrative services for the Company. The Company will also reimburse TSS at cost for administrative services provided in support of the Company's insurance business and the fulfillment of its contractual obligation to provide such services to CREF and the Company's affiliates. The Company will also provide to TSS any services necessary to conduct its operations, and TSS will reimburse the Company at cost for these services.

Note 16 - Federal Income Taxes

By charter, the Company is a stock life insurance company operating on a non-profit basis. However, the Company has been fully subject to federal income taxation as a stock life insurance company since January 1, 1998.

The application of SSAP No. 101 Income Taxes requires a company to evaluate the recoverability of DTAs and to establish a valuation allowance if necessary to reduce the DTA to an amount which is more likely than not to be realized. Based on the weight of all available evidence, the Company has not recorded a valuation allowance on DTAs at December 31, 2020 or December 31, 2019.

Components of the net deferred tax asset/(liability) are as follows (in millions):

				12/3	31/2020					12	/31/2019			Change			
			(1)		(2)	(Co	(3) I 1+2)		(4)		(5)	(6) (Col 4+	⊦ 5)	(7) (Col 1–4)	(8) (Col 2–5)	(9) (Col 7+8)	
		Or	dinary	C	apital		otal ,	Or	dinary	(Capital	Tota		Ordinary	Capital	Total	
a)	Gross Deferred Tax Assets	\$	5,623	\$	596	\$	6,219	\$	6,009	\$	271	\$ 6,2	280	\$ (386) \$ 325	\$ (61)	
b)	Statutory Valuation Allowance Adjustments		_		_		_		_		_		_	_	_	_	
c)	Adjusted Gross Deferred Tax Assets (a–b)		5,623		596		6,219		6,009		271	6,2	280	(386) 325	(61)	
d)	Deferred Tax Assets Non-admitted		2,767		131		2,898		2,847		_	2,8	347	(80) 131	51_	
e)	Subtotal Net Admitted Deferred Tax Asset (c-d)		2,856		465		3,321		3,162		271	3,4	133	(306) 194	(112)	
f)	Deferred Tax Liabilities		771		395		1,166		545		482	1,0)27	226	(87)		
g)	Net Admitted Deferred Tax Assets/(Net Deferred Tax Liability) (e–f)	\$	2,085	\$	70	\$	2,155	\$	2,617	\$	(211)	\$ 2,4	106	\$ (532) \$ 281	\$ (251)	

			12/31/2020			12/31/2019 Change					12/31/2019					Change					
Admission Calculation		(1)	(2	2)	<i>(</i> C	(3) ol 1+2)		(4)		(5)	(Ca	6) 4+5)	(Col	<u>'</u>	(8)		(Ca)	9) 7+8)			
Components SSAP No. 101	Or	dinary	Сар	oital		Total	0	rdinary	(Capital		otal	Ordinary					tal			
a) Federal Income Taxes Paid In Prior Years Recoverable Through Loss Carrybacks	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_			
b) Adjusted Gross DTA Expected To Be Realized (Excluding The Amount of DTA From (a) above After Application of the Threshold Limitation.(The Lesser of (b)1 and (b)2 Below)		2,085		70		2,155		2,346		60		2,406		(261)		10		(251)			
Adjusted Gross DTA Expected to be Realized Following the Balance Sheet Date		2,085		70		2,155		2,346		60		2,406		(261)		10		(251)			
Adjusted Gross DTA Allowed per Limitation Threshold		XXX		xxx		5,672		xxx		xxx		5,466		xxx		XXX		206			
c) Adjusted Gross DTA (Excluding The Amount Of DTA From (a) and (b) above) Offset by Gross DTL		771		395		1,166		816		211		1,027		(45)		184		139			
d) DTA Admitted as the result of application of SSAP No. 101. Total ((a)+(b)+(c))	\$	2,856	\$	465	\$	3,321	\$	3,162	\$	271	\$	3,433	\$	(306)	\$	194	\$	(112)			
														20:	20		2010				

	2020	2019
Ratio percentage used to determine recovery period and threshold limitation amount	964%	930%
Amount of adjusted capital and surplus used to determine the threshold limitation in (b)2 above (in millions)	\$37,811	\$36,441

		12/31/2		/2020		12/31	/20	19	Cha		nge	
Impact of Tax Planning Strategies: (in millions)		(1)		(2)		(3)		(4)	((5) Col 1–3)	(0	(6) Sol 2–4)
	Lc	Ordinary	L	Capital	<u> </u>	Ordinary		Capital	Ó	rdinarý) (Capital
Determination of adjusted gross DTAs and net admitted DTAs, by tax character as a percentage												
Adjusted Gross DTAs Amount From Above	\$	5,623	\$	596	\$	6,009	\$	271	\$	(386)	\$	325
Percentage Of Adjusted Gross DTAs By Tax Character Attributable To The Impact Of Tax Planning Strategies		— %		— %		— %		— %		— %		— %
Net Admitted Adjusted Gross DTAs Amount From Above	\$	2,856	\$	465	\$	3,162	\$	271	\$	(306)	\$	194
Percentage Of Net Admitted Adjusted Gross DTAs By Tax Character Admitted Because Of The Impact Of Tax Planning Strategies		14.70 %		— %		10.34 %		— %		4.36 %		— %

The Company does not have tax planning strategies that include the use of reinsurance.

The Company has no temporary differences for which DTLs are not recognized.

Income taxes incurred consist of the following major components (in millions):

	<u> </u>	2020		2019	2018
Current Income Tax:					
Federal income tax expense (benefit)	\$	(352)	\$	(189)	\$ (330)
Foreign taxes					
Subtotal	\$	(352)	\$	(189)	\$ (330)
Federal income taxes expense on net capital gains		439		204	431
Generation/(utilization) of loss carry-forwards		(87)		(15)	(101)
Intercompany tax sharing expense/(benefit)		(22)		(2)	(6)
Other		10		19	 (17)
Federal and foreign income tax expense / (benefit)	\$	(12)	\$	17	\$ (23)
	12/	31/2020	1	2/31/2019	 Change
Deferred Tax Assets:					
Ordinary:					
Policyholder reserves	\$	595	\$	582	\$ 13
Investments		463		608	(145)
Policyholder dividends accrual		383		397	(14)
Fixed assets		183		202	(19)
Compensation and benefits accrual		305		285	20
Net operating loss carry-forward		527		675	(148)
Other (including items < 5% of total ordinary tax assets)		622		551	71
Intangible assets – business in force and software		2,545		2,709	 (164)
Subtotal	\$	5,623	\$	6,009	\$ (386)
Statutory valuation allowance adjustment	\$	_	\$	_	\$ _
Non-admitted		2,767		2,847	(80)
Admitted ordinary deferred tax assets	\$	2,856	\$	3,162	\$ (306)
Capital:					
Investments	\$	575	\$	251	\$ 324
Real estate		21		20	1
Subtotal	\$	596	\$	271	\$ 325
Statutory valuation allowance adjustment		_		_	
Non-admitted		131		_	131
Admitted capital deferred tax assets		465		271	 194
Admitted deferred tax assets	\$	3,321	\$	3,433	\$ (112)
	12/	31/2020	1	2/31/2019	Change
Deferred Tax Liabilities:					
Ordinary:					
Investments	\$	513	\$	235	\$ 278
Reserves transition adjustment		256		307	(51)
Other (including items < 5% of total ordinary tax liabilities)		2		3	 (1)
Subtotal	\$	771	\$	545	\$ 226
Capital:					
Investments		395		482	 (87)
Subtotal	\$	395	\$	482	\$ (87)
Deferred tax liabilities	\$	1,166	\$	1,027	\$ 139
Net Deferred Tax:	_				
Assets/Liabilities	\$	2,155	\$	2,406	\$ (251)

The provision for federal and foreign income taxes incurred differs from the amount obtained by applying the statutory federal income tax rate to income before income taxes. The significant items causing this difference at December 31, 2020 are as follows (in millions):

Description	Tax	Effect	Effective Tax Rate
Provision computed at statutory rate	\$	477	21.00 %
Dividends received deduction		(51)	(2.23)%
Amortization of interest maintenance reserve		(80)	(3.52)%
Statutory impairment of affiliated common stock		8	0.36 %
Current year deferred only adjustments		(45)	(1.99)%
Tax effect of change in net unrealized capital gains & losses		(115)	(5.05)%
Other		(6)	(0.28)%
Total statutory income taxes	\$	188	8.29 %
Federal and foreign income tax expense (benefit) - Ordinary	\$	(12)	(0.52)%
Federal and foreign income tax expense (benefit) - Capital		_	— %
Change in net deferred income tax charge (benefit)		200	8.81 %
Total statutory income taxes	\$	188	8.29 %

As of December 31, 2020, the Company had the following net operating loss carry forwards (in millions):

Year Incurred	Operating .osses	Year of Expiration
2012	\$ 1,021	2027
2014	357	2029
2015	859	2030
2017	274	2032
Total	\$ 2,511	

As of December 31, 2020, the Company has foreign tax credit carry forwards of \$3 million generated in tax year 2015 and expiring in 2025.

As of December 31, 2020, the Company has no taxes available for recoupment in the event of future losses.

At December 31, 2020, and 2019, the Company has no capital loss carry forwards.

At December 31, 2020, the Company has general business credits of \$33 million generated during the years 2004 to 2019 and expiring between 2024 to 2039.

The Company does not have any protective tax deposits on deposit with the Internal Revenue Service under IRC Section 6603.

Beginning in 1998, the Company filed a consolidated federal income tax return with its includable affiliates (the "consolidating companies"). The consolidating companies participate in tax-sharing agreements. Under the general agreement, which applies to all of the below listed entities except those denoted with an asterisk (*), current federal income tax expense (benefit) is computed on a separate return basis and provides that members shall make payments or receive reimbursements to the extent their income (loss) contributes to or reduces consolidated federal tax expense. The consolidating companies are reimbursed for net operating losses or other tax attributes they have generated when utilized in the consolidated return.

- 1) 730 Texas Forest Holdings, Inc.
- 2) AMC Holding, Inc.
- 3) Business Property Lending, Inc.
- 4) CustomerOne Financial Network, Inc.
- 5) Elite Lender Services, Inc.
- 6) GreenWood Resources, Inc.
- 7) MyVest Corporation
- 8) ND Properties, Inc.
- 9) NIS/R&T, Inc.*
- 10) Nuveen Holdings, Inc.*
- 11) Nuveen Holdings 1, Inc. *
- 12) Nuveen Investments, Inc.*
- 13) Nuveen Investments Holdings, Inc.*
- 14) Nuveen Securities, LLC*
- 15) Oleum Holding Company, Inc.
- 16) T-C Europe Holding, Inc.

- 17) T-C SP, Inc.
- 18) Terra Land Company
- 19) TIAA-CREF Life Insurance Company
- 20) TIAA Board of Overseers
- 21) TIAA-CREF Tuition Financing, Inc.
- 22) TIAA Commercial Finance, Inc.
- 23) TIAA FSB Holdings, Inc.
- 24) TIAA, FSB
- 25) Tygris Asset Finance, Inc.
- 26) Tygris Commercial Finance Group, Inc.
- 27) Westchester Group Asset Management, Inc.
- 28) Westchester Group Farm Management, Inc.
- 29) Westchester Group Investment Management Holding Company, Inc.
- 30) Westchester Group Investment Management, Inc.
- 31) Westchester Group Real Estate, Inc.

The companies denoted with an asterisk above (collectively, "Nuveen subgroup"), are subject to a separate tax sharing agreement, under which current federal income tax expense (benefit) is computed on a separate subgroup return basis. Under the Agreement, Nuveen Holdings 1, Inc. makes payments to TIAA for amounts equal to the federal income payments that the Nuveen subgroup would be obliged to pay the federal government if the Nuveen subgroup had actually filed a separate consolidated tax return. Nuveen Holdings 1, Inc. is reimbursed for the subgroup losses to the extent that the subgroup tax return reflects a tax benefit that the Nuveen subgroup could have carried back to a prior consolidated return year.

Amounts payable to the Company's subsidiaries for federal income taxes are \$27 million and \$14 million at December 31, 2020 and 2019, respectively.

The Company's tax years 2014 through 2016 are currently under examination by the Internal Revenue Service ("IRS"), and tax years 2017 through 2019 are open for examination.

Note 17 - Pension Plan and Post-retirement Benefits

The Company maintains a qualified, non-contributory defined contribution money purchase plan covering substantially all employees, including employees of Nuveen Services, LLC and TIAA, FSB. All employee plan liabilities are fully funded through retirement annuity contracts. Contributions are made to each participant's contract based on a percentage of salary, with the applicable percentage varying by attained age. All contributions are fully vested after three years of service. Forfeitures arising from terminations prior to vesting are used to reduce future employer contributions. The statements of operations include contributions to the plan of approximately \$57 million, \$58 million and \$53 million for the years ended December 31, 2020, 2019 and 2018, respectively. This includes supplemental contributions made to company-owned annuity contracts under a non-qualified deferred compensation plan.

The Company previously provided pension benefits through an unfunded Supplemental Executive Retirement Plan ("SERP") to certain select executives and any TIAA associate deemed eligible by the Board of Trustees. The SERP provided an annual retirement benefit payable at normal retirement. The obligations of the Company under the SERP are unfunded, unsecured promises to make future payments. As such, the plan has no assets.

Contributions for a given period are equal to the benefit payments for that period. The benefit obligation and net periodic benefit cost of this plan for the years ended December 31, are as follows (in millions):

		SERP	
	2020	2019	2018
Benefit obligation	\$ 38	\$ 38	\$ 37
Net period benefit cost	\$ 1	\$ 2	\$ 2

In addition to the defined contribution plan and SERP, the Company provides certain other post-retirement life and health insurance benefits to eligible retired employees who meet prescribed age and service requirements. The benefit obligation and net periodic benefit cost of this plan for the years ended December 31, are as follows (in millions):

	 Р	ost-retire	ment Benefit	s	
	 2020	2	019		2018
Benefit obligation	\$ 79	\$	75	\$	74
Net period benefit cost	\$ (1)	\$	(1)	\$	2

Note 18 - Repurchase and Securities Lending Programs

Repurchase Program

The Company has a repurchase program to sell and repurchase securities for the purposes of providing additional liquidity. For repurchase agreements, the Company's policy requires a minimum of 95% of the fair value of securities transferred under repurchase agreements to be maintained as collateral.

The Company has procedures in place to monitor the value of the collateral held and the fair value of the securities transferred under the agreements. If at any time the value of the collateral received from the counterparty falls below 95% of the fair value of the securities transferred, the Company is entitled to receive additional collateral from its counterparty. The Company monitors the estimated fair value of the securities sold under the agreements on a daily basis with additional collateral sent/obtained a necessary. If the counterparty were to default on its obligation to return the securities sold under the agreement on the repurchase date, the Company has the right to retain the collateral.

During the years ended December 31, 2020 and 2019, the Company engaged in certain repurchase transactions as cash taker. These transactions were "bilateral" in nature and the Company did not engage in any "Tri-party" repurchase transactions during the year. Additionally, there were no securities sold during the years ended December 31, 2020 and 2019 that resulted in default.

As of December 31, 2020 and 2019, the Company had no outstanding repurchase agreements.

Securities Lending Program

The Company has a securities lending program whereby it may lend securities to qualified institutional borrowers to earn additional income. The Company receives collateral (in the form of cash) against the loaned securities and maintains collateral in an amount not less than 102% of the market value of loaned securities during the period of the loan; any additional collateral required due to changes in security values is delivered to the Company the next business day. Cash collateral received by the Company will generally be invested in high-quality short-term instruments or bank deposits.

As of December 31, 2020, the estimated fair value of the Company's securities on loan under the program was \$353 million. The estimated fair value of collateral held by the Company for the bonds on loan as of December 31, 2020, was reported in "Securities lending collateral assets" with an offsetting collateral liability of \$361 million included in "Payable for collateral for securities loaned". This collateral received is cash and has not been sold or re-pledged as of December 31, 2020.

Of the cash collateral received from the program, \$361 million is held as cash as of December 31, 2020. Thus, the collateral remains liquid and could be returned in the event of a collateral call. The amortized cost and fair value of the reinvested cash collateral by the maturity date of the invested asset is as follows (in millions):

	Amorti	ized Cost	Fair Value			
Open	\$	361	\$	361		
Total collateral reinvested	\$	361	\$	361		

As of December 31, 2019 the estimated fair value of the Company's securities on loan under the program was \$355 million. The estimated fair value of collateral held by the Company for the bonds on loan as of December 31, 2019, was reported in "Securities lending collateral assets" with an offsetting collateral liability of \$363 million included in "Payable for collateral for securities loaned." This collateral received was cash and had not been sold or re-pledged as of December 31, 2019.

Of the cash collateral received from the program, \$363 million was held as cash as of December 31, 2019. Thus, the collateral remains liquid and could be returned in the event of a collateral call. The amortized cost and fair value of the reinvested cash collateral by the maturity date of the invested asset is as follows (in millions):

	Amorti	zed Cost	Fair Value		
Open	\$	363	\$	363	
Total collateral reinvested	\$	363	\$	363	

Note 19 - Federal Home Loan Bank of New York Membership and Borrowings

The Company is a member of the FHLBNY. Through its membership, the Company has the ability to conduct business activity ("Advances") with the FHLBNY. It is part of the Company's strategy to utilize these funds to provide additional liquidity to supplement existing sources. The Company is required to pledge collateral to the FHLBNY in the form of eligible securities for all advances received. The Company considers the amount of collateral pledged to the FHLBNY as the amount encumbered by advances from the FHLBNY at a point in time. The Company has determined the estimated maximum borrowing capacity as about \$16,315 million. The Company calculated this amount using 5% of total net admitted assets at the current reporting date

The following table shows the FHLBNY capital stock held in the general account as of December 31, (in millions):

	2020			2019
Membership stock - class A	\$		\$	_
Membership stock - class B		87		84
Activity stock		94		21
Excess stock		_		_
Total	\$	181	\$	105

There were no FHLBNY capital stock held in separate accounts as of December 31, 2020 and 2019.

Membership stock at December 31, 2020 and 2019, is not eligible for redemption.

The Company had \$2,081 million and \$460 million in funding agreements outstanding at December 31, 2020 and December 31, 2019 respectively.

The following table shows the maximum collateral pledged to FHLBNY in the general account during the year ending December 31, (in millions):

		2020			2019	
	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Total	\$ 4,460	\$ 4,019	\$ 4,124	\$ 1,375	\$ 1,333	\$ 1,285

There was no collateral pledged to FHLBNY in the separate accounts during the years ended December 31, 2020 and 2019.

The following table shows the maximum borrowing from FHLBNY in the general account during the year ending December 31, (in millions):

	2020			2019
Debt	\$	2,114	\$	1,285
Funding agreements		2,010		
Total	\$	4,124	\$	1,285

There were no borrowings from FHLBNY in the separate accounts during the year ended December 31, 2020 and 2019.

The following table shows the collateral pledged to FHLB in the general account as of December 31, 2020 and 2019 (in millions):

				2020		2019						
	Fai	Carrying Fair Value Value			gregate Total rrowing	Fair	r Value		arrying Value	Aggregate Total Borrowing		
Total	\$	2,275	\$	1,990	\$ 2,081	\$	492	\$	449	\$	460	

There was no collateral pledged to FHLB in the separate account as of December 31, 2020 and 2019.

Note 20 - Capital and Contingency Reserves and Shareholders' Dividends Restrictions

The portion of contingency reserves increased or (reduced) by each item below for the years ended December 31 are as follows (in millions):

	2020			2019	2018		
Net income	\$	604	\$	1,618	\$	1,453	
Change in net unrealized capital gains (losses)		(678)		118		(359)	
Change in asset valuation reserve		463		(1,063)		129	
Change in net deferred income tax		(200)		(284)		(147)	
Change in non-admitted assets		(301)		365		708	
Change in post-retirement benefit liability		(8)		(8)		7	

As of December 31, 2020 and 2019, the portion of contingency reserves represented by cumulative net unrealized gains was \$1,938 million and \$2,616 million, gross of deferred taxes, respectively.

Capital: The Company has 2,500 shares of Class A common stock authorized, issued and outstanding. All of the outstanding common stock of the Company is held by the TIAA Board of Overseers, a not-for-profit corporation created for the purpose of holding the common stock of the Company. By charter, the Company operates without profit to its sole shareholder.

Surplus Notes: On May 7, 2020, the Company issued surplus notes in an aggregate principal amount of \$1,250 million. The notes bear interest at an annual rate of 3.300%, and have a maturity date of May 15, 2050. Proceeds from the issuance of the notes were \$1,248 million, net of issuance discount. Interest on the notes is scheduled to be paid semiannually on May 15 and November 15 of each year through the maturity date.

The following table provides information related to the Company's outstanding surplus notes as of December 31, 2020 (in millions):

Date Issued	Interest Rate	A	Original Issue Amount of Note	١	Carrying Value of Note		Current	Current Year Interest Expense Recognized		Life-To-Date Interest Expense Recognized		Life-To-Date Principal Paid		Date of Maturity
12/16/2009	6.850 %	\$	2,000	\$	1,049	\$	1,049	\$	72	\$	791	\$	950	12/16/2039
09/18/2014	4.900 %		1,650		1,649		1,649		81		484		_	09/15/2044
09/18/2014	4.375 % *		350		349		349		15		92		_	09/15/2054
05/08/2017	4.270 %		2,000		1,994		1,994		85		301		_	05/15/2047
05/07/2020	3.300 %		1,250				1,249		22		22			05/15/2050
Total		\$	7,250	\$	5,041	\$	6,290	\$	275	\$	1,690	\$	950	

*The Company will bear interest at a fixed annual rate of 4.375% from and including September 18, 2014 to but excluding September 15, 2024 payable semi-annually in arrears on March 15 and September 15 of each year, commencing March 15, 2015, then at an annual floating rate equal to Three-Month LIBOR plus 2.661% from and including September 15, 2024 to but excluding the date on which the Fixed-to-Floating Rate Notes are paid in full, payable quarterly, in arrears on March 15, June 15, September 15 and December 15 of each year, commencing December 15, 2024.

For the years ended December 31, 2020 and 2019, the Company did not have any related parties as holders of surplus notes or unapproved interest or principal. There were no amounts of current year interest offset or principal paid and the notes were not contractually linked. Surplus note payments are not subject to administrative offsetting and proceeds were not used to purchase assets directly from the holder of the note.

The instruments listed in the above table, are unsecured debt obligations of the type generally referred to as "surplus notes" and are issued in accordance with Section 1307 of the New York Insurance Law. The surplus notes are subordinated in right of payment to all present and future indebtedness, policy claims and other creditor claims of the Company and rank *pari passu* with any future surplus notes of the Company and with any other similarly subordinated obligations.

The notes were issued in transactions pursuant to Rule 144A under the Securities Act of 1933, as amended, and the notes are evidenced by one or more global notes deposited with a custodian for, and registered in the name of a nominee of, The Depository Trust Company.

No subsidiary or affiliate of the Company is an obligor or guarantor of the notes, which are solely obligations of the Company. No affiliates of the Company hold any portion of the notes.

The notes are unsecured and subordinated to all present and future indebtedness, policy claims and other creditor claims of the Company. Under New York Insurance Law, the notes are not part of the legal liabilities of the Company. The notes are not scheduled to repay any principal prior to maturity. Each payment of interest and principal may be made only with the prior approval of the Superintendent and only out of the Company's surplus funds, which the Superintendent of the Department determines to be available for such payments under New York Insurance Law. In addition, provided that approval is granted by the Superintendent of the Department, the notes may be redeemed at the option of the Company at any time at the "make-whole" redemption price equal to the greater of the principal amount of the notes to be redeemed, or the sum of the present values of the remaining scheduled interest and principal payments, excluding accrued interest as of the redemption date, discounted to the redemption date on a semi-annual basis at the adjusted Treasury rate plus a pre-defined spread, plus in each case, accrued and unpaid interest payments on the notes to be redeemed to the redemption date.

Dividend Restrictions: Under the New York Insurance Law, the Company is permitted without prior insurance regulatory clearance to pay a stockholder dividend as long as the aggregated amount of all such dividends in any calendar year does not exceed the lesser of (i) 10% of its surplus to policyholders as of the immediately preceding calendar year and (ii) its net gain from operations for the immediately preceding calendar year (excluding realized investment gains). The Company has not paid dividends to its shareholder.

Note 21 - Contingencies and Guarantees

Subsidiary and Affiliate Guarantees:

At December 31, 2020, the Company has a financial support agreement with TIAA Life. Under this agreement, the Company will provide support so TIAA Life will have the greater of (a) capital and surplus of \$250 million, (b) the amount of capital and surplus necessary to maintain TIAA Life's capital and surplus at a level not less than 150% of the NAIC Risk Based Capital model or (c) such other amount as necessary to maintain TIAA Life's financial strength rating at least the same as the Company's rating at all times. Since this obligation is not subject to limitations, the Company does not believe that it is possible to determine the maximum potential amount that could become due under these guarantees in the future. At December 31, 2020, the capital and surplus of TIAA Life was in excess of the minimum capital and surplus amount referenced, and its total adjusted capital was in excess of the referenced RBC-based amount calculated at December 31, 2020.

The Company has agreed that it will cause TIAA Life to be sufficiently funded at all times in order to meet all its contractual obligations on a timely basis including, but not limited to, obligations to pay policy benefits and to provide policyholder services. This agreement is not an evidence of indebtedness or an obligation or liability of the Company and does not provide any creditor of TIAA Life with recourse to or against any of the assets of the Company.

The Company has unconditionally guaranteed \$1,000 million in 4.0% senior unsecured notes issued by Nuveen, LLC due in 2028. The Company agrees to cause any such payment to be made punctually when and as the same shall become due and payable, whether at maturity, upon acceleration, redemption, repayment or otherwise, and as if such payment were made by Nuveen, LLC. The guarantee is made to/on behalf of a wholly-owned subsidiary, and as such the liability is excluded from recognition. The maximum potential amount of future payments the Company could be required to make under the guarantee as of December 31, 2020, is \$1,320 million, which includes the future undiscounted interest payments. Should action under the guarantee be required, the Company would contribute cash to Nuveen, LLC, to fund the obligation, thereby increasing the Company's investment in Nuveen, LLC, as reported in other invested assets. Based on Nuveen, LLC's financial position and operations, the Company views the risk of performance under this guarantee as remote.

Additionally, the Company has the following agreements and lines of credit with subsidiaries, affiliates, and other related parties:

The Company provides a \$100 million unsecured 364-day revolving line of credit arrangement with TIAA Life. \$30 million of this facility is maintained on a committed basis with an expiration date of July 2, 2021. As of December 31, 2020, there were no balances outstanding.

The Company also provides a \$1,000 million uncommitted line of credit to certain accounts of CREF and certain TIAA-CREF Funds ("Funds"). Loans under this revolving credit facility are for a maximum of 60 days and are made solely at the discretion of the Company to fund shareholder redemption requests or other temporary or emergency needs of CREF and the Funds. As of December 31, 2020, there were no balances outstanding. It is the intent of the Company, CREF and the Funds to use this facility as a supplemental liquidity facility, which would only be used after CREF and the Funds have exhausted the availability of the current \$1,000 million committed credit facility maintained with a group of banks.

The Company guarantees CREF transfers to the Company for the immediate purchase of lifetime payout annuities will produce guaranteed payments that will never be less than the amounts calculated at the stipulated interest rate and mortality defined in the applicable CREF contract.

The Company also provides a \$300 million unsecured and uncommitted 364-day revolving line of credit arrangement with the Bank. This line has an expiration date of September 8, 2021. As of December 31, 2020, there were no balances outstanding.

The Company also provides a \$100 million committed 364-day revolving line of credit arrangement with Nuveen, LLC. This line has an expiration date of December 23, 2021. As of December 31, 2020, there were no balances outstanding.

The Company also provides a \$200 million unsecured revolving line of credit arrangement with TCMT II Originations TRS, LLC. This line has an expiration date of September 23, 2023. As of December 31, 2020, \$74 million was outstanding.

Separate Account Guarantees: The Company provides mortality and expense guarantees to VA-1, for which it is compensated. The Company guarantees, at death, the total death benefit payable from the fixed and variable accounts will be at least a return of total premiums paid less any previous withdrawals. The Company also guarantees expense charges to VA-1 participants will never rise above the maximum amount stipulated in the contract.

The Company provides mortality, expense and liquidity guarantees to REA and is compensated for these guarantees. The Company guarantees once REA participants begin receiving lifetime annuity income benefits, monthly payments will never be reduced as a result of adverse mortality experience. The Company also guarantees expense charges to REA participants will never rise above the maximum amount stipulated in the contract. The Company provides REA with a liquidity guarantee to ensure it has funds available to meet participant transfer or cash withdrawal requests. If REA cannot fund participant requests, TIAA's general account will fund them by purchasing accumulation units. Under this agreement, TIAA guarantees that participants will be able to redeem their accumulation units at the accumulation unit value next determined after the transfer or withdrawal request is received in good order.

As of December 31, 2020, there are no outstanding liquidity units under the liquidity guarantee provided to REA by the Company.

The Company provides mortality and expense guarantees to VA-3 and is compensated for these guarantees. The Company guarantees once VA-3 participants begin receiving lifetime annuity income benefits, monthly payments will never be reduced as a result of adverse mortality experience. The Company also guarantees expense charges to VA-3 participants will never rise above the maximum amount stipulated in the contract.

Other Contingencies:

In the ordinary conduct of certain of its investment activities, the Company provides standard indemnities covering a variety of potential exposures. For instance, the Company provides indemnifications in connection with site access agreements relating to due diligence review for real estate acquisitions, and the Company provides indemnification to underwriters in connection with the issuance of securities by or on behalf of the Company or its subsidiaries. It is the Company management's opinion that the fair value of such indemnifications are negligible and do not materially affect the Company's financial position, results of operations or liquidity.

Other contingent liabilities arising from litigation and other matters over and above amounts already provided for in the financial statements or disclosed elsewhere in these notes are not considered material in relation to the Company's financial position or the results of its operations.

The Company receives and responds to subpoenas, examinations, or other inquiries from state and federal regulators, including state insurance commissioners; state attorneys general and other state governmental authorities; the SEC; federal governmental authorities; and the Financial Industry Regulatory Authority ("FINRA"), seeking a broad range of information. The Company cooperates in connection with these inquiries and believes the ultimate liability that could result from litigation and proceedings would not have a material adverse effect on the Company's financial position.

Note 22 – Subsequent Events

In preparing these financial statements, the Company has evaluated events and transactions for potential recognition or disclosure through March 11, 2021, the date the financial statements were available to be issued.