TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA

Audited Statutory – Basis Financial Statements
as of December 31, 2022 and 2021 and for the
three years ended December 31, 2022

TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA
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DECEMBER 31, 2022

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Report of Independent Auditors

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

Opinions

We have audited the accompanying statutory-basis financial statements of Teachers Insurance and Annuity Association of America (the "Company"), which comprise the statutory-basis statements of admitted assets, liabilities and capital and contingency reserves as of December 31, 2022 and 2021, 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, 2022, including the related notes (collectively referred to as the "financial statements").

Unmodified Opinion on Statutory Basis of Accounting

In our opinion, the accompanying financial statements present fairly, in all material respects, the admitted assets, liabilities and capital and contingency reserves of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in accordance with the accounting practices prescribed or permitted by the New York State Department of Financial Services described in Note 2.

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 section of our report, the accompanying financial statements 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, 2022 and 2021, or the results of its operations or its cash flows for each of the three years in the period ended December 31, 2022.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (US GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Company and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

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

As described in Note 2 to the financial statements, the 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 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.

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Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the 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 financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for one year after the date the financial statements are available to be issued.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with US GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

PricewaterhouseCoopers LLP

New York, New York
March 9, 2023

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

	December 31,	
	2022	2021
ADMITTED ASSETS	(in millions, except share amounts)	
Bonds	$ 202,240	$ 197,717
Preferred stocks	406	345
Common stocks	7,511	9,665
Mortgage loans	37,660	36,793
Real estate	3,871	3,699
Cash, cash equivalents and short-term investments	1,204	628
Contract loans	731	1,095
Derivatives	1,920	1,070
Securities lending collateral assets	1,328	2,247
Other invested assets	37,011	34,262
Total cash and invested assets	293,882	287,521
Investment income due and accrued	1,923	1,774
Net deferred federal income tax asset	1,299	1,680
Other assets	1,071	1,202
Separate account assets	50,382	51,255
TOTAL ADMITTED ASSETS	$ 348,557	$ 343,432
LIABILITIES, CAPITAL AND CONTINGENCY RESERVES		
Liabilities		
Reserves for life and health insurance, annuities and deposit-type contracts	$ 235,620	$ 227,699
Dividends due to policyholders	2,269	2,005
Interest maintenance reserve	3,444	3,898
Borrowed money	100	75
Asset valuation reserve	6,569	8,345
Derivatives	327	221
Payable for collateral for securities loaned	1,328	2,247
Other liabilities	5,931	4,817
Separate account liabilities	50,247	51,152
TOTAL LIABILITIES	305,835	300,459
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	6,291	6,290
Contingency reserves:		
For investment losses, annuity and insurance mortality, and other risks	36,428	36,680
TOTAL CAPITAL AND CONTINGENCY RESERVES	42,722	42,973
TOTAL LIABILITIES, CAPITAL AND CONTINGENCY RESERVES	$ 348,557	$ 343,432

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

	For the Years Ended December 31,		
	2022	2021	2020
	(in millions)		
REVENUES			
Insurance and annuity premiums and other considerations	$ 16,636	$ 14,730	$ 18,449
Annuity dividend additions	2,099	945	1,606
Net investment income	13,004	13,542	12,159
Other revenue	369	372	447
TOTAL REVENUES	$ 32,108	$ 29,589	$ 32,661
BENEFITS AND EXPENSES			
Policy and contract benefits	$ 21,990	$ 20,365	$ 20,818
Dividends to policyholders	4,141	2,758	3,262
Increase in policy and contract reserves	2,969	300	7,609
Net operating expenses	1,289	1,406	2,343
Net transfers to (from) separate accounts	(407)	802	(2,713)
TOTAL BENEFITS AND EXPENSES	$ 29,982	$ 25,631	$ 31,319
Income before federal income taxes and net realized capital gains (losses)	$ 2,126	$ 3,958	$ 1,342
Federal income tax expense (benefit)	(80)	(266)	(12)
Net realized capital gains (losses) less capital gains taxes, after transfers to the interest maintenance reserve	(2,614)	(352)	(750)
NET INCOME (LOSS)	$ (408)	$ 3,872	$ 604

See notes to statutory - basis financial statements

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

	Capital Stock and Additional Paid-in Capital	Surplus Notes	Contingency Reserves	Total
	(in millions)			
Balance, December 31, 2019	$ 3	$ 5,041	$ 33,828	$ 38,872
Net income (loss)	—	—	604	604
Change in net unrealized capital gains on investments, net of $0 in taxes	—	—	(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
Net income (loss)	—	—	3,872	3,872
Change in net unrealized capital gains (losses) on investments, net of $361 in taxes	—	—	1,645	1,645
Change in asset valuation reserve	—	—	(2,485)	(2,485)
Change in net deferred income tax	—	—	(1,088)	(1,088)
Change in post-retirement benefit liability	—	—	(1)	(1)
Change in non-admitted assets:				
Deferred federal income tax asset	—	—	974	974
Other assets	—	—	55	55
Balance, December 31, 2021	$ 3	$ 6,290	$ 36,680	$ 42,973
Net income (loss)	—	—	(408)	(408)
Change in net unrealized capital gains (losses) on investments, net of $67 in taxes	—	—	(612)	(612)
Change in asset valuation reserve	—	—	1,776	1,776
Change in net deferred income tax	—	—	271	271
Change in post-retirement benefit liability	—	—	10	10
Change in non-admitted assets:				
Deferred federal income tax asset	—	—	(857)	(857)
Other assets	—	—	(432)	(432)
Change in surplus notes	—	1	—	1
Balance, December 31, 2022	$ 3	$ 6,291	$ 36,428	$ 42,722

See notes to statutory - basis financial statements

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

	For the Years Ended December 31,		
	2022	2021	2020
CASH FROM OPERATIONS		(in millions)	
Insurance and annuity premiums and other considerations	$ 16,640	$ 14,732	$ 18,453
Net investment income	12,333	12,884	11,433
Miscellaneous income	338	355	425
Total receipts	29,311	27,971	30,311
Policy and contract benefits	21,864	20,366	20,469
Operating expenses	1,265	1,646	2,078
Dividends paid to policyholders	1,779	1,635	1,725
Federal income taxes paid (received)	(134)	(232)	(25)
Net transfers to (from) separate accounts	(394)	807	(2,723)
Total disbursements	24,380	24,222	21,524
Net cash from operations	4,931	3,749	8,787
CASH FROM INVESTMENTS			
Proceeds from investments sold, matured, or repaid:			
Bonds	29,726	33,590	26,297
Stocks	9,245	6,586	6,441
Mortgage loans and real estate	2,824	3,605	2,349
Other invested assets	4,378	3,562	2,499
Miscellaneous proceeds	2,766	1,725	344
Cost of investments acquired:			
Bonds	35,065	33,943	32,779
Stocks	9,738	8,603	6,413
Mortgage loans and real estate	4,365	5,778	4,017
Other invested assets	6,657	5,864	3,541
Miscellaneous applications	879	2,345	1,196
Net cash used in investments	(7,765)	(7,465)	(10,016)
CASH FROM FINANCING AND OTHER			
Proceeds from issuance of surplus notes	—	—	1,249
Borrowed money	25	75	—
Net deposits on deposit-type contracts funds	4,829	66	1,620
Other cash provided (applied)	(1,444)	1,742	(81)
Net cash from financing and other	3,410	1,883	2,788
NET CHANGE IN CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS	576	(1,833)	1,559
CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS, BEGINNING OF YEAR	628	2,461	902
CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS, END OF YEAR	$ 1,204	$ 628	$ 2,461

See notes to statutory - basis financial statements

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 Governors ("Board of Governors"), 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"); a comprehensive basis of accounting that differs from accounting principles generally accepted in the United States ("GAAP"). 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").

Under Regulation No. 172 (11 NYCRR 83), the Department did not adopt certain NAIC SAP guidance, specifically subparagraph 4.a. of SSAP No. 26R, Bonds, and the third sentence in footnote 1 of SSAP No. 97, Investments in Subsidiary, Controlled and Affiliated Entities, to treat certain exchange traded funds ("ETFs") designated by the Securities Valuation Office ("SVO"), ("SVO-Identified ETFs"), as qualifying for bond accounting treatment. Rather, the Department requires these SVO-identified ETFs to be reflected as equities under SSAP No. 30R, "Unaffiliated Common Stock". However, if the ETF meets certain criteria, the asset valuation reserve ("AVR") and interest maintenance reserve ("IMR") may be retained under SSAP No. 26R, and the ETF can be treated as a bond for the purpose of a domestic insurer's risk based capital ("RBC") report. The total balance of investment grade ETF holdings treated as equities as of December 31, 2022 and 2021, but treated as bonds for AVR, IMR and RBC, are $3,222 million and $3,647 million, respectively. This prescribed practice does not result in a difference to net income or capital and contingency reserves when compared to NAIC SAP.

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.

	NAIC SAP#	Financial Statement Line	For the Years Ended December 31, 2022	2021	2020
				(in millions)	
Net income, New York SAP			$ (408)	$ 3,872	$ 604
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)	(2)	(1)
Net income (loss), NAIC SAP			$ (409)	$ 3,870	$ 603
Capital and surplus, New York SAP			$ 42,722	$ 42,973	$ 40,001
New York SAP Prescribed Practices that are an increase/(decrease) to NAIC SAP:					
Additional reserves for term conversions	51R	Reserves for life and health insurance, annuities and deposit-type contracts	16	18	20
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 invested assets	—	—	(419)
Capital and surplus, NAIC SAP			$ 42,738	$ 42,991	$ 40,021

The additional reserve for the term conversions results from the Department requiring in Regulation No. 147 (11 NYCRR 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.

During 2020, the NAIC adopted certain prescribed accounting practices within Interpretation 2020-10, Reporting Nonconforming Credit Tenant Loans ("CTL") ("INT 20-10"). Specifically, INT 20-10 provided limited exceptions that extended to October 1, 2021, which allowed nonconforming CTLs to continue to be treated as bonds rather than other invested assets, if they were previously filed with the SVO. During 2021, the NAIC amended the Purposes and Procedures Manual of the NAIC Investment Analysis Office ("P&P Manual") to define that CTLs are specific to mortgage loans in scope of SSAP No. 37, Mortgage Loans, and clarify that security structures shall be assessed for accounting and reporting guidance in accordance with SSAP No. 26R, Bonds, and SSAP No. 43R, Loan Backed and Structured Securities, thus the reporting exceptions in INT 20-10 were no longer required.

The Company's RBC as of December 31, 2022 and 2021 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 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 other-than-temporary impairments are recorded to the Interest Maintenance Reserve ("IMR");

- 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 invested assets 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;

- All derivative instruments are carried at fair value under GAAP, whereas under NAIC SAP, certain derivative instruments are carried at amortized cost;

- Changes in the fair value of derivative instruments are generally reported through earnings unless they qualify and are designated for cash flow or net investment hedge accounting, whereas under NAIC SAP, changes in the fair value of derivative instruments not carried at amortized cost are recorded as unrealized capital gains or losses and reported as changes in surplus;

- 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 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 significant 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 Russian invasion of Ukraine has created significant uncertainty in the global financial markets and economies. The duration and extent of this uncertainty and the related impact over the long-term cannot be reasonably estimated at this time. While not currently expected to be material, TIAA will continue to monitor the impact on the Company’s business, results of operations, investments, and cash flows.

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. The principal for Treasury Inflation Protected Securities ("TIPS") bonds is adjusted based on inflation and is recorded as an unrealized gain or loss and amortized over the remaining life of the security. 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.

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: Non-perpetual 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. Perpetual and mandatory convertible preferred stocks are carried at fair value. The fair value of preferred stocks is determined using prices provided by independent pricing services or internally developed pricing models. 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. Investment grade bond ETFs are accounted for as common stocks and are stated at fair value.

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 invested assets." 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 Invested Assets: Other invested assets primarily include investments in joint ventures, partnerships, and limited liability companies which are stated at cost, adjusted for the Company's underlying equity percentage based on the respective entity's most recent available audited US GAAP or International Financial Reporting Standards financial statements.

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 invested assets 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.

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 an OTTI has occurred. 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.

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 one year 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 monitors the unrealized loss position for replication credit default swaps. If it is determined that a decline in fair value is other than temporary, the cost basis will be written down to fair value and the amount of the write down is accounted for as a realized loss.

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):

	2022	2021	Change
Net deferred federal income tax asset	$ 2,781	$ 1,924	$ 857
Furniture and electronic data processing equipment	495	431	64
Invested assets	613	263	350
Prepaid expenses	168	142	26
Other	38	46	(8)
Total	$ 4,095	$ 2,806	$ 1,289

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):

	2022	2021
EDP equipment and computer software	$ 2,052	$ 2,029
Furniture and equipment and leasehold improvements	$ 148	$ 147

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 non-participating 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 non-participating 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 except for net deferred taxes related to the unrealized appreciation or depreciation on investments, which are included in the change in unrealized capital gains (losses) on investments. 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):

	2022	2021	2020
Exchange/transfer/conversion/distribution of invested assets	$ 3,678	$ 2,137	$ 3,952
Annuity dividend additions	$ 2,099	$ 945	$ 1,606
Capitalized interest	$ 302	$ 398	$ 416
Interest credited on deposit-type contracts	$ 113	$ 30	$ 30

Application of New Accounting Pronouncements:

In May 2021, the NAIC adopted revisions to Interpretation 20-01 to adopt ASU 2021-01, Reference Rate Reform. This adoption allows an optional transitional expedient to continue existing hedging relationships when modifications are made due to reference rate reform. This guidance expired on December 31, 2022. The Company adopted the guidance and there was no material impact to its statutory-basis financial statements.

In November 2021, the NAIC adopted revisions to SSAP No. 43R, Loan Backed and Structured Securities. The revisions clarify that effective December 31, 2022, residual tranches or interest shall be reported as other invested assets. The Company adopted this guidance and the guidance did not have a material impact to its statutory-basis financial statements.

In May 2022, the NAIC adopted revisions to SSAP No. 25, Affiliates and Other Related Parties and SSAP No. 43R, Loan Backed and Structured Securities.These revisions are intended to clarify the definition of control and create new financial statement reporting requirements for investment transactions with related parties within the investment reporting schedules within the Annual Reporting schedules. Changes to the schedules require reporting entities to identify if an investment involves a related party and, if so, the nature of the role of such related party in the investment. The Company adopted this guidance and the guidance did not have a material impact to its statutory-basis financial statements.

In August 2022, the NAIC adopted revisions to SSAP No. 48, Joint Ventures, Partnerships, and Limited Liability Companies. The revisions clarify that the audit of an entity utilizing the U.S. tax basis equity valuation exception shall occur at the investee level where the investee has a minor ownership interest (less than 10%) or lacks control as defined by the SSAP, and where audited U.S. GAAP basis financial statements are not available. The Company adopted this guidance and the guidance did not have a material impact to its statutory-basis financial statements.

In December 2022, the NAIC adopted certain accounting practices within Interpretation 2022-02, Third Quarter 2022 through First Quarter 2023 Reporting of the Inflation Reduction Act (the “Act”) - Corporate Alternative Minimum Tax (“CAMT”) (“INT 22-02”). The Act imposes a CAMT to the excess of 15% of a corporation's adjusted financial statement income over its corporate alternative minimum tax foreign tax credit. The tax is effective for tax years beginning after 2022. INT 22-02 addresses the third quarter 2022 through first quarter 2023 transition accounting and reporting aspects of the new CAMT. Because of the timing of the adoption of the Act and the considerable number of unknown variables, a reasonable estimate for the calculations impacted by the CAMT is not determinable for 2022 year-end financial statements. INT 22-02 specifies that reporting entities shall not recognize impacts related to CAMT for 2022 year-end financial statements or as a subsequent event for any estimated CAMT, but shall make certain disclosures to discuss the Act’s applicability. See Note 9 for the disclosure.See Note 16 for the disclosure.

In December 2022, the NAIC adopted revisions to SSAP No. 25, Affiliates and Other Related Parties and SSAP No. 97, Investments in Subsidiary, Controlled and Affiliated Entities. The revisions identify foreign open-end investment funds as a fund in which ownership percentage is not deemed to reflect control unless the entity actually controls with the power to direct the underlying company. The Company adopted this guidance and the guidance 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).

	2022			
		Excess 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	$ 17,563	$ 84	$ (1,884)	$ 15,763
All other governments	4,092	57	(409)	3,740
States, territories and possessions	750	8	(21)	737
Political subdivisions of states, territories, and possessions	1,104	2	(137)	969
Special revenue and special assessment, non-guaranteed agencies and government	20,733	73	(2,442)	18,364
Credit tenant loans	496	2	(69)	429
Industrial and miscellaneous	145,976	791	(17,974)	128,793
Hybrids	523	26	(41)	508
Parent, subsidiaries and affiliates	—	—	—	—
Bank loans	11,003	45	(279)	10,769
Total	$ 202,240	$ 1,088	$ (23,256)	$ 180,072

	2021			
		Excess 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	$ 20,035	$ 3,320	$ (153)	$ 23,202
All other governments	4,418	428	(58)	4,788
States, territories and possessions	736	132	—	868
Political subdivisions of states, territories, and possessions	930	86	(1)	1,015
Special revenue and special assessment, non-guaranteed agencies and government	20,979	1,958	(12)	22,925
Credit tenant loans	10,999	1,353	(19)	12,333
Industrial and miscellaneous	130,766	12,216	(601)	142,381
Hybrids	497	91	(1)	587
Parent, subsidiaries and affiliates	285	—	(3)	282
Bank loans	8,072	57	(31)	8,098
Total	$ 197,717	$ 19,641	$ (879)	$ 216,479

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

impairments in certain economically-depressed geographic locations and (h) the potential for impairment based on an estimated discounted cash flow analysis for structured and loan-backed securities. Where decline in value 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 than twelve months			Twelve months or more		
	Amortized Cost	Gross Unrealized Loss	Estimated Fair Value	Amortized Cost	Gross Unrealized Loss	Estimated Fair Value
December 31, 2022						
Loan-backed and structured bonds	$ 42,632	$ (4,245)	$ 38,387	$ 5,388	$ (935)	$ 4,453
All other bonds	112,477	(13,344)	99,133	19,566	(4,565)	15,002
Total bonds	$ 155,109	$ (17,589)	$ 137,520	$ 24,954	$ (5,500)	$ 19,455
Unaffiliated common stocks	3,858	(697)	3,161	891	(156)	735
Preferred stocks	165	(49)	116	18	(18)	—
Total bonds and stocks	$ 159,132	$ (18,335)	$ 140,797	$ 25,863	$ (5,674)	$ 20,190

	Less than twelve months			Twelve months or more		
	Amortized Cost	Gross Unrealized Loss	Estimated Fair Value	Amortized Cost	Gross Unrealized Loss	Estimated Fair Value
December 31, 2021						
Loan-backed and structured bonds	$ 4,594	$ (97)	$ 4,497	$ 1,087	$ (100)	$ 987
All other bonds	17,138	(438)	16,700	4,845	(337)	4,508
Total bonds	$ 21,732	$ (535)	$ 21,197	$ 5,932	$ (437)	$ 5,495
Unaffiliated common stocks	698	(23)	675	111	(9)	102
Preferred stocks	13	(1)	12	22	(20)	2
Total bonds and stocks	$ 22,443	$ (559)	$ 21,884	$ 6,065	$ (466)	$ 5,599

Estimated fair values for bonds are subject to market fluctuations, including changes in interest rates. Generally, if interest rates increase, the value of bonds will decrease, and conversely a decline in general interest rates will tend to increase the value of bonds. During 2022, the rise in interest rates drove declines in the estimated fair values for bonds. 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):

	December 31, 2022		December 31, 2021	
	Book/ Adjusted Carrying Value	Estimated Fair Value	Book/ Adjusted Carrying Value	Estimated Fair Value
Due in one year or less	$ 4,423	$ 4,437	$ 4,521	$ 4,561
Due after one year through five years	32,794	31,604	29,463	30,955
Due after five years through ten years	38,371	34,703	33,316	35,479
Due after ten years	87,532	73,622	77,232	88,305
Subtotal	163,120	144,366	144,532	159,300
Residential mortgage-backed securities	13,979	13,106	20,698	22,646
Commercial mortgage-backed securities	9,653	8,741	10,019	10,348
Asset-backed securities	15,488	13,859	22,468	24,185
Subtotal	39,120	35,706	53,185	57,179
Total	$ 202,240	$ 180,072	$ 197,717	$ 216,479

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.

	2022	2021
Other	12.5 %	9.6 %
Revenue and special obligations	12.0 %	9.5 %
Public utilities	10.6 %	10.5 %
Finance and financial services	10.6 %	10.4 %
Manufacturing	10.0 %	9.8 %
Services	8.4 %	7.1 %
Asset-backed securities	7.7 %	11.4 %
Residential mortgage-backed securities	6.9 %	10.5 %
U.S. governments	6.0 %	5.0 %
Commercial mortgage-backed securities	4.8 %	5.1 %
Real estate investment trusts	4.3 %	4.4 %
Communications	2.3 %	2.1 %
Oil and gas	2.2 %	2.4 %
All other governments	1.7 %	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):

	2022		2021	
NAIC 1 and 2	$ 182,180	90.1 %	$ 179,733	90.9 %
NAIC 3 through 6	20,060	9.9	17,984	9.1
Total	$ 202,240	100.0 %	$ 197,717	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, 2022 and 2021, the Company recognized OTTI on loan-backed and structured securities of $26 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):

	2022	2021
Carrying amount of bonds and stocks denominated in foreign currency	$ 5,317	$ 5,216
Carrying amount of bonds and stocks denominated in foreign currency which are collateralized by real estate	$ 892	$ 498

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	2022	2021
Commercial loans	$ 35,071	$ 34,281
Mezzanine loans	2,145	1,967
Residential loans	444	545
Total	$ 37,660	$ 36,793

The maximum and minimum lending rates for mortgage loans originated or purchased during 2022 and 2021 are as follows:

	2022		2021	
Loan Type	**Maximum**	**Minimum**	**Maximum**	**Minimum**
Commercial loans	8.09 %	2.39 %	6.05 %	1.40 %
Mezzanine loans	10.32 %	4.00 %	4.70 %	2.40 %

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 2022 and 2021 are as follows:

	Maximum LTV	
Loan Type	**2022**	**2021**
Commercial loans	90.8 %	71.5 %
Mezzanine loans	85.0 %	74.6 %

There were no residential mortgage loans originated or purchased during 2022 and 2021.

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, 2022 and 2021 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 and mezzanine 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 and mezzanine mortgage loans at December 31, are as follows (in millions):

	Recorded Investment - Commercial and Mezzanine			
	Loan-to-value Ratios			
2022	**> 70%**	**< 70%**	**Total**	**% of Total**
Debt service coverage ratios:				
Greater than 1.20x	$ 4,744	$ 27,224	$ 31,968	85.5 %
Less than 1.20x	2,616	2,543	5,159	13.8 %
Construction	—	264	264	0.7 %
Total	$ 7,360	$ 30,031	$ 37,391	100.0 %

	Recorded Investment - Commercial and Mezzanine			
	Loan-to-value Ratios			
2021	**> 70%**	**< 70%**	**Total**	**% of Total**
Debt service coverage ratios:				
Greater than 1.20x	$ 7,669	$ 24,283	$ 31,952	87.8 %
Less than 1.20x	3,037	1,291	4,328	11.9 %
Construction	—	127	127	0.3 %
Total	$ 10,706	$ 25,701	$ 36,407	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):

		Residential		Commercial			
2022	**Farm**	**Insured**	**All Other**	**Insured**	**All Other**	**Mezzanine**	**Total**
Recorded investment							
Current	$ —	$ —	$ 439	$ —	$ 35,233	$ 2,043	$ 37,715
30-59 days past due	$ —	$ —	$ —	$ —	$ —	$ —	$ —
60-89 days past due	$ —	$ —	$ 2	$ —	$ —	$ —	$ 2
90-179 days past due	$ —	$ —	$ —	$ —	$ —	$ 115	$ 115
180+ days past due	$ —	$ —	$ 4	$ —	$ —	$ —	$ 4
Participant or co-lender in a mortgage loan agreement							
Recorded investment	$ —	$ —	$ —	$ —	$ 5,079	$ 2,158	$ 7,237

		Residential		Commercial			
2021	**Farm**	**Insured**	**All Other**	**Insured**	**All Other**	**Mezzanine**	**Total**
Recorded investment							
Current	$ —	$ —	$ 545	$ —	$ 34,430	$ 1,976	$ 36,951
30-59 days past due	$ —	$ —	$ 3	$ —	$ —	$ —	$ 3
60-89 days past due	$ —	$ —	$ —	$ —	$ —	$ —	$ —
90-179 days past due	$ —	$ —	$ —	$ —	$ —	$ —	$ —
180+ days past due	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Participant or co-lender in a mortgage loan agreement							
Recorded investment	$ —	$ —	$ —	$ —	$ 5,200	$ 1,976	$ 7,176

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

	2022	2021
Mortgage Loans by Property Type (Commercial & Residential):	**% of Total**	**% of Total**
Office buildings	27.0 %	27.5 %
Apartments	25.0	24.7
Shopping centers	18.1	20.5
Industrial buildings	17.4	15.3
Other - commercial	10.7	10.5
Residential	1.8	1.5
Total	100.0 %	100.0 %

	2022		2021	
	% of Total		% of Total	
Mortgage Loans by Geographic Distribution:	**Commercial**	**Residential**	**Commercial**	**Residential**
Pacific	22.2 %	39.4 %	20.8 %	38.0 %
South Atlantic	17.3	15.6	19.2	16.9
Middle Atlantic	17.3	20.0	16.3	18.7
South Central	10.7	8.8	11.3	9.5
North Central	8.8	3.6	8.2	3.3
New England	8.2	6.1	7.5	6.4
Other	15.5	6.5	16.7	7.2
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):

	2022	2021
	Carrying Value	Carrying Value
Due in one year or less	$ 2,882	$ 2,169
Due after one year through five years	16,452	13,668
Due after five years through ten years	14,675	16,797
Due after ten years	3,651	4,159
Total	$ 37,660	$ 36,793

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, 2022 or 2021.

Note 5 – Real Estate

At December 31, 2022 and 2021, the Company's directly owned real estate investments, were carried net of third party mortgage encumbrances. There were $691 million of third party mortgage encumbrances as of December 31, 2022, and $709 million for December 31, 2021.

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

	2022	2021
Directly Owned Real Estate by Property Type:	**% of Total**	**% of Total**
Industrial buildings	42.3 %	45.4 %
Apartments	26.0	23.8
Office buildings	24.2	23.7
Retail	2.8	2.9
Mixed-use projects	2.0	2.1
Land under development	1.5	0.9
Income-producing land	1.2	1.2
Total	100.0 %	100.0 %

	2022	2021
Directly Owned Real Estate by Geographic Region:	**% of Total**	**% of Total**
South Atlantic	29.1 %	28.7 %
Pacific	27.2	29.8
South Central	14.2	13.9
Mountain	13.7	11.0
Middle Atlantic	9.3	9.8
North Central	6.5	6.8
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 invested assets. The carrying value of investments in SCA entities at December 31, are shown below (in millions):

	2022	2021
Net carrying value of the SCA entities		
Reported as common stock	$ 2,924	$ 5,137
Reported as other invested assets	24,550	22,920
Total net carrying value	$ 27,474	$ 28,057

Of the $24,550 million and $22,920 million of SCA entities reported as other invested assets as of December 31, 2022 and 2021, $5,004 million and $5,193 million were attributed to Nuveen, LLC, TIAA's largest subsidiary, respectively.

On November 2, 2022, TIAA entered into an agreement to sell a majority of its common stock ownership of TIAA FSB Holdings, Inc. (“FSB”) to various third-party investors. FSB is a federally chartered savings and loan holding company. TIAA will retain a non-controlling stake and an ongoing business relationship in FSB after the sale is complete. Under the agreement, nearly all of FSB’s current assets and business lines will be acquired by the new ownership, with the exception of TIAA Trust. As a condition of sale, TIAA has agreed to purchase certain residential mortgage loans from FSB. The sale transaction is expected to close in the second half of 2023, subject to regulatory approval.

The sale is expected to generate a loss to the Company; accordingly, the Company recorded an impairment loss of $1.3 billion for the year ended December 31, 2022, attributable to the remeasurement of the Company’s investment in FSB from carrying value to fair value. The impairment loss and a release of accumulated unrealized capital gains was offset by a reduction of the asset valuation reserve associated with the Company’s investment in

FSB, which is recorded in the change in asset valuation reserve on the Statements of Changes in Capital and Contingency Reserves for the year ended December 31, 2022. The net reduction to capital and contingency reserves is $0.3 billion.

The fair value of the Company's investment in FSB was based on the agreed-upon sales price, adjusted to include the fair value of retained businesses discussed above. The actual loss will depend on the timing of executing certain conditions of the agreement and the related market inputs at that time.

As of December 31, 2022 and 2021, 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):

	2022			
SCA Entities	**Percentage of SCA Ownership**	**Gross Amount**	**Admitted Amount**	**Nonadmitted Amount**
TIAA FSB Holdings, Inc.	100%	$2,006	$2,006	$—

	2022				
SCA Entity	**Type of NAIC Filing**	**Date of Filing to the NAIC**	**NAIC Valuation Amount**	**NAIC Response Received Y/N**	**NAIC Disallowed Entities Valuation Method, Resubmission Required Y/N**
TIAA FSB Holdings, Inc.	Sub-2	6/22/2022	$3,503	Y	N

	2021			
SCA Entities	**Percentage of SCA Ownership**	**Gross Amount**	**Admitted Amount**	**Nonadmitted Amount**
TIAA FSB Holdings, Inc.	100%	$3,503	$3,503	$—

	2021				
SCA Entity	**Type of NAIC Filing**	**Date of Filing to the NAIC**	**NAIC Valuation Amount**	**NAIC Response Received Y/N**	**NAIC Disallowed Entities Valuation Method, Resubmission Required Y/N**
TIAA FSB Holdings, Inc.	Sub-2	9/16/2021	$3,141	Y	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 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 Department prescribed a floor under Regulation No. 213 (11 NYCRR 103), Principle-Based Reserving, effective December 31, 2020, that the reserve for variable annuities is the greater of those prescribed under the NAIC Valuation Manual ("VM") in section VM-21 Requirements for Principle-Based Reserves for Variable Annuities ("VM-21"), and Regulation No. 213.

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):

	2022			
	Monetary Effect on NAIC SAP		Amount of Investment	
SCA Entity	Net Income Increase (Decrease)	Surplus Increase (Decrease)	Per Audited Statutory Equity	If the Insurance SCA Had Completed Statutory Financial Statements*
TIAA Life	$ —	$ 7	$ 890	$ 897

* Per NAIC SAP (without permitted or prescribed practices)

	2021			
	Monetary Effect on NAIC SAP		Amount of Investment	
SCA Entity	Net Income Increase (Decrease)	Surplus Increase (Decrease)	Per Audited Statutory Equity	If the Insurance SCA Had Completed Statutory Financial Statements*
TIAA Life	$ —	$ 7	$ 835	$ 842

* Per NAIC SAP (without permitted or prescribed practices)

During 2022 and 2021, had TIAA Life not departed from NAIC SAP a regulatory event would not have been triggered due to risk based capital.

The Company held no bonds of affiliates at December 31, 2022. As of December 31, 2021 the Company held $285 million.

As of December 31, 2022 and 2021, the net amount due to SCA entities was $419 million and $561 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 $580 million and $835 million as of December 31, 2022 and 2021, 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 $9,252 million and $7,754 million as of December 31, 2022 and 2021, respectively. Significant holdings as of December 31, are as follows (in millions):

	2022	2021
Subsidiary	Carrying Value	Carrying Value
TIAA Infrastructure Investments, LLC	$ 1,033	$ 595
TIAA Global Ag Holdco LLC	1,001	981
ND Properties LLC	622	—
T-C Europe, LP	556	606
TIAA Super Regional Mall Member Sub LLC	503	534
Occator Agricultural Properties, LLC	428	456
TGA APAC Fund Holdings, LLC	385	292
NGFF Holdco, LLC	306	302
T-C Lux Fund Holdings LLC	285	338
T-C MV Member LLC	255	316
TGA MKP Member LLC	202	202
NGTF Holdco LLC	200	—
TGA European RE Holdings I LLC	188	81
TGA Sparrow Investor LLC	181	83
T-C Waterford Blue Lagoon LLC	181	182
TIAA GTR Holdco LLC	180	170
TIAA-Stonepeak Investments II, LLC	155	139
TIAA-Stonepeak Investments I, LLC	155	150
TGA JL MCF II Investor Member LLC	142	—
730 Transmission, LLC	120	77
TGA SS Self Storage Portfolio Inv Mbr LLC	119	140
L.A. Teak Holdings, LLC	112	69
730 Data Centers, LLC	106	39
TGA Central Square Investor Member LLC	102	57
TEFF Holdco LLC	89	111
730 Power Development, LLC	86	114
TGA FC Investor Member LLC	82	69
T-C SV Member LLC	79	—
TGA EastRidge Investor Member LLC	78	78
TGA PC MCF Investor Member LLC	67	78
Other	1,254	1,495
Total	$ 9,252	$ 7,754

Note 7 - Other Invested Assets

The components of the Company's carrying value in Other invested assets are (in millions):

	2022	2021
Affiliated other invested assets	$ 24,550	$ 22,920
Unaffiliated other invested assets	11,677	10,835
Receivables for securities, derivative collateral and line of credit	784	507
Total other invested assets	$ 37,011	$ 34,262

As of December 31, 2022 and 2021, affiliated other invested assets consist primarily of investments through downstream legal entities in the following (in millions):

	2022	2021
Real estate	$ 9,168	$ 8,178
Operating subsidiaries and affiliates	5,272	5,474
Investment subsidiaries	3,550	3,648
Agriculture and timber	4,581	4,177
Energy and infrastructure	1,979	1,443
Total affiliated other invested assets	$ 24,550	$ 22,920

Of the $5,272 million and $5,474 million of operating subsidiaries and affiliates as of December 31, 2022 and 2021, $5,004 million and $5,193 million were attributed to Nuveen, LLC, TIAA's largest subsidiary, respectively.

As of December 31, 2022 and 2021, 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 invested assets for which the carrying value is not expected to be recovered:

	2022	2021	2020
Operating Subsidiaries	$ 842	$ 407	$ 81
All Other	197	217	406
OTTI	$ 1,039	$ 624	$ 487

The following table presents the carrying value for other invested assets denominated in foreign currency for the years ended December 31, (in millions):

	2022	2021
Other invested assets denominated in foreign currency	$ 868	$ 808

Note 8 - Investments Commitments

The outstanding obligation for future investments at December 31, 2022, is shown below by asset category (in millions):

	2023	In later years	Total Commitments
Bonds	$ 1,441	$ 2,006	$ 3,447
Mortgage loans	858	—	858
Real estate	116	8	124
Other invested assets	3,713	6,602	10,315
Total	$ 6,128	$ 8,616	$ 14,744

The funding of bond commitments is contingent upon the continued favorable financial performance of the potential borrowers 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 invested assets, 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):

	2022	2021	2020
Bonds	$ 8,649	$ 8,667	$ 8,772
Stocks	281	231	121
Mortgage loans	1,482	1,429	1,388
Real estate	409	382	333
Derivatives	270	215	204
Other invested assets	2,612	3,274	2,022
Cash, cash equivalents and short-term investments	9	—	3
Total gross investment income	13,712	14,198	12,843
Less investment expenses	(1,240)	(1,070)	(1,064)
Net investment income before amortization of IMR	12,472	13,128	11,779
Plus amortization of IMR	532	414	380
Net investment income	$ 13,004	$ 13,542	$ 12,159

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):

	2022	2021	2020
Bonds	$ (347)	$ 832	$ 1,382
Stocks	(1,336)	45	46
Mortgage loans	(5)	(6)	—
Real estate	(1)	204	27
Derivatives	459	152	1
Other invested assets	(1,219)	(633)	(538)
Cash, cash equivalents and short-term investments	(87)	(23)	10
Total before capital gains taxes and transfers to IMR	(2,536)	571	928
Transfers to IMR	(78)	(923)	(1,678)
Net realized capital losses less capital gains taxes, after transfers to IMR	$ (2,614)	$ (352)	$ (750)

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

	2022	2021	2020
Other-than-temporary impairments:			
Bonds	$ 239	$ 100	$ 261
Stocks	1,403	52	67
Mortgage Loans	—	—	1
Real estate	4	—	—
Other invested assets	1,039	624	487
Total	$ 2,685	$ 776	$ 816

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

	2022	2021	2020
Proceeds from sales	$ 17,993	$ 17,488	$ 13,528
Gross gains on sales	$ 482	$ 1,064	$ 1,656
Gross losses on sales	$ 541	$ 174	$ 71

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. In accordance with the Company's valuation and impairment process, the investments which are deemed held for sale 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. 100R, 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 $893 million and $812 million for the years ended December 31, 2022 and 2021, respectively, and total unfunded commitments were $290 million and $321 million for the years ended December 31, 2022 and 2021, respectively. For these investments, redemptions are prohibited prior to liquidation.

The following table provides information about the aggregate fair value of the Company's financial instruments and their level within the fair value hierarchy as well as investments valued at their NAV, at December 31, 2022 (in millions):

	Aggregate Fair Value	Statement Value	Level 1	Level 2	Level 3	NAV
Assets:						
Bonds	$ 180,072	$ 202,240	$ —	$ 177,587	$ 2,485	$ —
Common stock[1]	4,587	4,587	3,876	200	511	—
Preferred stock	382	406	9	240	133	—
Mortgage loans	34,757	37,660	—	—	34,757	—
Derivatives	1,749	1,920	—	987	762	—
Other invested assets[1]	245	244	—	245	—	—
Contract loans	731	731	—	—	731	—
Separate account assets	50,137	50,382	16,452	4,332	28,460	893
Cash, cash equivalents & short term investments	1,204	1,204	427	776	1	—
Total	$ 273,864	$ 299,374	$ 20,764	$ 184,367	$ 67,840	$ 893

	Aggregate Fair Value	Statement Value	Level 1	Level 2	Level 3	NAV
Liabilities:						
Deposit-type contracts	$ 8,294	$ 8,294	$ —	$ —	$ 8,294	$ —
FHLB debt	100	100	—	—	100	—
Separate account liabilities	50,247	50,247	—	—	50,247	—
Derivatives	295	327	—	278	17	—
Total	$ 58,936	$ 58,968	$ —	$ 278	$ 58,658	$ —

[1] Excludes investments accounted for under the equity method.

The following table provides information about the aggregate fair value of the Company's financial instruments and their level within the fair value hierarchy as well as investments valued at their NAV at December 31, 2021 (in millions):

	Aggregate Fair Value	Statement Value	Level 1	Level 2	Level 3	NAV
Assets:						
Bonds	$ 216,479	$ 197,717	$ —	$ 212,612	$ 3,867	$ —
Common stock[(1)]	4,528	4,528	4,143	54	331	—
Preferred stock	372	345	12	200	160	—
Mortgage loans	37,959	36,793	—	—	37,959	—
Derivatives	828	1,070	—	81	747	—
Other invested assets[(1)]	95	76	—	95	—	—
Contract loans	1,095	1,095	—	—	1,095	—
Separate account assets	51,325	51,255	19,839	4,867	25,807	812
Cash, cash equivalents & short term investments	628	628	88	540	—	—
Total	$ 313,309	$ 293,507	$ 24,082	$ 218,449	$ 69,966	$ 812

	Aggregate Fair Value	Statement Value	Level 1	Level 2	Level 3	NAV
Liabilities:						
Deposit-type contracts	$ 3,355	$ 3,355	$ —	$ —	$ 3,355	$ —
FHLB debt	75	75	—	—	75	—
Separate account liabilities	51,152	51,152	—	—	51,152	—
Derivatives	188	221	—	190	(2)	—
Total	$ 54,770	$ 54,803	$ —	$ 190	$ 54,580	$ —

(1) Excludes investments accounted for under the equity method.

The estimated fair values of the financial instruments presented above are determined by the Company using market information available as of December 31, 2022 and 2021. 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. Bond ETFs are classified as common stock and 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 include surplus notes that 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. Additionally, for residual tranches or interests, valuation may be based 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.

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

Cash equivalents, short term investments and common stock included in Level 2 are valued principally by third party services using market observable inputs.

Level 3 financial instruments

Valuation techniques for bonds and cash, cash equivalents, and short-term investments 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 18 - 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 insurance contract.

FHLB debt provides additional liquidity to the Company to support general business operations. FHLB debt held by the Company is generally comprised of short term advances and is reflected as borrowed money within the Company's financial statements. Borrowings outstanding at December 31, 2022 had maturity dates less than three business days from the reporting date. Accordingly, the fair value of the debt is valued using the par value, which approximates fair value.

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):

	2022				
	Level 1	Level 2	Level 3	NAV	Total
Assets at fair value:					
Bonds					
U.S. Government	$ —	$ 1,235	$ —	$ —	$ 1,235
Industrial and miscellaneous	—	77	—	—	77
Total bonds	$ —	$ 1,312	$ —	$ —	$ 1,312
Common stock					
Industrial and miscellaneous	$ 3,876	$ 200	$ 511	$ —	$ 4,587
Total common stocks	$ 3,876	$ 200	$ 511	$ —	$ 4,587
Preferred stock	$ 9	$ 23	$ 66	$ —	$ 98
Total preferred stocks	$ 9	$ 23	$ 66	$ —	$ 98
Derivatives					
Interest rate contracts	$ —	$ —	$ —	$ —	$ —
Foreign exchange contracts	—	846	—	—	846
Total derivatives	$ —	$ 846	$ —	$ —	$ 846
Separate accounts assets	$ 16,432	$ 1,590	$ 28,460	$ 893	$ 47,375
Total assets at fair value	$ 20,317	$ 3,971	$ 29,037	$ 893	$ 54,218
Liabilities at fair value:					
Derivatives					
Interest rate contracts	$ —	$ 90	$ —	$ —	$ 90
Foreign exchange contracts	—	168	—	—	168
Total liabilities at fair value	$ —	$ 258	$ —	$ —	$ 258

	2021				
	Level 1	Level 2	Level 3	NAV	Total
Assets at fair value:					
Bonds					
U.S. Government	$ —	$ 1,884	$ —	$ —	$ 1,884
Industrial and miscellaneous	—	213	22	—	235
Total bonds	$ —	$ 2,097	$ 22	$ —	$ 2,119
Common stock					
Industrial and miscellaneous	$ 4,143	$ 54	$ 331	$ —	$ 4,528
Total common stocks	$ 4,143	$ 54	$ 331	$ —	$ 4,528
Preferred stock	$ 12	$ 85	$ 83	$ —	$ 180
Total preferred stocks	$ 12	$ 85	$ 83	$ —	$ 180
Derivatives					
Interest rate contracts	$ —	$ 12	$ —	$ —	$ 12
Foreign exchange contracts	—	375	—	—	375
Total derivatives	$ —	$ 387	$ —	$ —	$ 387
Separate accounts assets	$ 19,820	$ 2,216	$ 25,807	$ 812	$ 48,655
Total assets at fair value	$ 23,975	$ 4,839	$ 26,243	$ 812	$ 55,869
Liabilities at fair value:					
Derivatives					
Foreign exchange contracts	$ —	$ 122	$ —	$ —	$ 122
Credit default swaps	—	1	—	—	1
Total liabilities at fair value	$ —	$ 123	$ —	$ —	$ 123

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, 2022 (in millions):

	Balance at 1/1/2022	Transfers into Level 3	Transfers out of Level 3	Total gains & (losses) included in Net Income	Total gains & (losses) included in Surplus	Purchases	Issuances	Sales	Settlements	Ending Balance at 12/31/2022
Bonds	$ 22	$ —	$ (24) a	$ (3)	$ 2	$ —	$ 3	$ —	$ —	$ —
Common stock	331	—	—	8	22	9,328	—	(9,178)	—	511
Preferred stock	83	—	—	(9)	(7)	—	—	(1)	—	66
Separate account assets	25,807	—	—	(1,653)	3,236	1,461	—	(621)	230	28,460
Total	$ 26,243	$ —	$ (24)	$ (1,657)	$ 3,253	$ 10,789	$ 3	$ (9,800)	$ 230	$ 29,037

(a) The Company transferred bonds 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, 2021 (in millions):

	Beginning balance at 1/1/2021	Transfers into Level 3	Transfers out of Level 3	Total gains (losses) included in Net Income	Total gains (losses) included in Surplus	Purchases	Issuances	Sales	Settlements	Ending Balance at 12/31/2021
Bonds	$ 90	$ 7 a	$ (43) c	$ 3	$ 7	$ —	$ 1	$ (29)	$ (14)	$ 22
Common stock	315	—	—	43	36	6,199	—	(6,262)	—	331
Preferred stock	92	90 b	—	(8)	3	1	—	(95)	—	83
Separate account assets	22,296	—	—	191	3,216	1,421	—	(1,216)	(101)	25,807
Total	$ 22,793	$ 97	$ (43)	$ 229	$ 3,262	$ 7,621	$ 1	$ (7,602)	$ (115)	$ 26,243

(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 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, 2022 (in millions):

Financial Instrument	Fair Value	Valuation Techniques	Significant Unobservable Inputs	Range of Inputs	Weighted Average
Equity securities:					
Common stock	$ 511	Market comparable	Earnings before interest, taxes, depreciation and amortization ("EBITDA") multiple	6.6x - 13.7x	10.3x
		Equity method	Book value multiple	1.0x	1.0x
		Market comparable	Credit analysis/market comparable	$121.8	$121.8
		Market comparable	Price-to-book multiple	2.5x	2.5x
		Market comparable	Revenue Multiple	8.4x	8.4x
Preferred stock	$ 66	Market comparable	EBITDA multiple	8.7x	8.7x
		Market comparable	Price-to-book multiple	2.5x	2.5x
		Market comparable	Market Yield	12.4%	12.4%
Separate account assets:					
Real estate properties and real estate joint ventures	$ 28,399				
Office properties		Income approach - discounted cash flow	Discount rate	6.0% - 9.0%	7.1%
			Terminal capitalization rate	4.8% - 8.5%	5.8%
		Income approach - direct capitalization	Overall capitalization rate	4.3% - 8.0%	5.4%
Industrial properties		Income approach - discounted cash flow	Discount rate	5.8% - 8.0%	6.6%
			Terminal capitalization rate	4.3% - 7.0%	5.0%
		Income approach - direct capitalization	Overall capitalization rate	1.8% - 6.0%	4.3%
Residential properties		Income approach - discounted cash flow	Discount rate	5.5% - 7.0%	6.1%
			Terminal capitalization rate	4.3% - 5.8%	4.7%
		Income approach - direct capitalization	Overall capitalization rate	3.5% - 5.0%	4.1%
Retail properties		Income approach - discounted cash flow	Discount rate	6.0% - 11.5%	7.3%
			Terminal capitalization rate	5.3% - 8.8%	6.0%
		Income approach - direct capitalization	Overall capitalization rate	4.5% - 8.5%	5.4%
Hotel properties		Income approach - discounted cash flow	Discount rate	10.0%	10.0%
			Terminal capitalization rate	8.0%	8.0%
		Income approach - direct capitalization	Overall capitalization rate	7.5%	7.5%

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	$ (2,070)				
Office properties		Discounted cash flow	Loan-to-value ratio	35.4% - 64.3%	48.7%
			Equivalency rate	3.7% - 7.0%	6.0%
		Net present value	Loan-to-value ratio	35.4% - 64.3%	48.7%
			Weighted average cost of capital risk premium multiple	1.1 - 1.3	1.2
Industrial properties		Discounted cash flow	Loan-to-value ratio	27.8% - 37.0%	31.4%
			Equivalency rate	5.7% - 6.1%	5.9%
		Net present value	Loan-to-value ratio	27.8% - 37.0%	31.4%
			Weighted average cost of capital risk premium multiple	1.1 - 1.1	1.1
Residential properties		Discounted cash flow	Loan-to-value ratio	24.8% - 66.4%	39.0%
			Equivalency rate	5.6% - 6.4%	6.0%
		Net present value	Loan-to-value ratio	24.8% - 66.4%	39.0%
			Weighted average cost of capital risk premium multiple	1.1 - 1.3	1.1
Retail properties		Discounted cash flow	Loan-to-value ratio	44.8% - 74.6%	47.2%
			Equivalency rate	5.5% - 6.3%	5.7%
		Net present value	Loan-to-value ratio	44.8% - 74.6%	47.2%
			Weighted average cost of capital risk premium multiple	1.1 - 1.3	1.2

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

Financial Instrument	Fair Value	Valuation Techniques	Significant Unobservable Inputs	Range of Inputs	Weighted Average
Loan receivable	$ 1,489				
Office properties		Discounted cash flow	Loan-to-value ratio	40.0 - 105.0%	69.7%
			Equivalency rate	5.5% - 13.2%	8.7%
Industrial properties		Discounted cash flow	Loan-to-value ratio	49.5% - 66.0%	57.8%
			Equivalency rate	5.3% - 9.8%	6.4%
Residential properties		Discounted cash flow	Loan-to-value ratio	36.4% - 76.1%	45.4%
			Equivalency rate	5.5% - 8.6%	7.0%
Retail properties		Discounted cash flow	Loan-to-value ratio	54.9% - 104.5%	80.1%
			Equivalency rate	7.3% - 18.2%	10.2%

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

Financial Instrument	Fair Value	Valuation Techniques	Significant Unobservable Inputs	Range of Inputs	Weighted Average
Real estate operating business	$ 642				
		Discounted cash flow	Discount rate	9.8%	9.8%
			Terminal growth rate	7%	7%
		Market approach	EBITDA multiple	31.3x	31.3x

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 comparables, 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):

	2022										
	1	2	3	4	5	6	7	8	9	10	11
Restricted Asset Category	Total General Account (G/A)	G/A Supporting Separate Account (S/A) Activity	Total 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	$ 1,328	$ —	$ 4	$ —	$ 1,332	$2,251	$ (919)	$ —	$ 1,332	0.38 %	0.38 %
FHLB capital stock	369	—	—	—	369	186	183	—	369	0.10 %	0.11 %
On deposit with states	16	—	—	—	16	16	—	—	16	— %	— %
Pledged as collateral to FHLB (including assets backing funding agreements)	8,780	—	—	—	8,780	2,139	6,641	—	8,780	2.49 %	2.52 %
Pledged as collateral not captured in other categories	31	—	—	—	31	63	(32)	—	31	0.01 %	0.01 %
Other restricted assets	—	—	45	—	45	25	20	—	45	0.01 %	0.01 %
Total restricted assets	$ 10,524	$ —	$ 49	$ —	$10,573	$4,680	$ 5,893	$ —	$ 10,573	2.99 %	3.03 %

	2021										
	1	2	3	4	5	6	7	8	9	10	11
Restricted Asset Category	**Total General Account (G/A)**	**G/A Supporting Separate Account (S/A) Activity**	**Total 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	$ 2,247	$ —	$ 4	$ —	$ 2,251	$ 365	$ 1,886	$ —	$ 2,251	0.65 %	0.66 %
FHLB capital stock	186	—	—	—	186	181	5	—	186	0.05 %	0.05 %
On deposit with states	16	—	—	—	16	17	(1)	—	16	0.01 %	0.01 %
Pledged as collateral to FHLB (Including assets backing funding agreements)	2,139	—	—	—	2,139	1,990	149	—	2,139	0.62 %	0.62 %
Pledged as collateral not captured in other categories	63	—	—	—	63	269	(206)	—	63	0.02 %	0.02 %
Other restricted assets	—	—	25	—	25	23	2	—	25	0.01 %	0.01 %
Total restricted assets	$ 4,651	$ —	$ 29	$ —	$ 4,680	$2,845	$ 1,835	$ —	$ 4,680	1.36 %	1.37 %

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):

	2022			
Collateral Assets	**Book/Adjusted Carrying Value ("BACV")**	**Fair Value**	**BACV to Total Assets (Admitted and Nonadmitted)**	**BACV to Total Admitted Assets**
General Account:				
Cash, cash equivalents and short-term investments	$ 1,403	$ 1,403	0.46 %	0.47 %
Securities lending collateral assets	1,328	1,328	0.44 %	0.45 %
Total General Account Collateral Assets	$ 2,731	$ 2,731	0.90 %	0.92 %
Separate Account:				
Securities lending collateral assets	$ 4	$ 4	0.01 %	0.01 %
Total Separate Account Collateral Assets	$ 4	$ 4	0.01 %	0.01 %

	2022	
	Amount	**% of Total Liabilities**
Recognized Obligation to Return Collateral Asset (General Account)	$ 2,731	1.07 %
Recognized Obligation to Return Collateral Asset (Separate Account)	$ 4	0.01 %

	2021			
Collateral Assets	**Book/Adjusted Carrying Value ("BACV")**	**Fair Value**	**BACV to Total Assets (Admitted and Nonadmitted)**	**BACV to Total Admitted Assets**
General Account:				
Cash, cash equivalents and short-term investments	$ 773	$ 773	0.26 %	0.27 %
Securities lending collateral assets	2,247	2,247	0.76 %	0.77 %
Total General Account Collateral Assets	$ 3,020	$ 3,020	1.02 %	1.04 %
Separate Account:				
Securities lending collateral assets	$ 4	$ 4	0.01 %	0.01 %
Total Separate Account Collateral Assets	$ 4	$ 4	0.01 %	0.01 %

	2021	
	Amount	**% of Total Liabilities**
Recognized Obligation to Return Collateral Assets (General Account)	$ 3,020	1.21 %
Recognized Obligation to Return Collateral Asset (Separate Account)	$ 4	0.01 %

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, 2022 and 2021, counterparties pledged $1,403 million and $773 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, 2022 and 2021, the Company pledged the following collateral and margin to its counterparties (in millions):

	December 31,	
	2022	**2021**
Cash collateral and margin	$ 11	$ 3
Securities collateral and margin	$ 8	$ 47

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, 2022 and 2021, were $2,052 million and $1,172 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, 2022 and 2021 were $11 million and $67 million, respectively, for which the Company posted collateral of $20 million and $57 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 Swap Contracts: The Company enters into interest rate swap contracts to economically hedge against the effect of interest rate fluctuations on certain variable interest rate bonds and other commitments. 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 Swap Contracts: 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 Swap Contracts: 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, 2022		December 31, 2021		December 31, 2020	
	Change in Net Unrealized Capital Gain (Loss)	Net Realized Capital Gain (Loss)	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	$ 296	$ 11	$ 116	$ (2)	$ (133)	$ (1)
Total qualifying hedge relationships	$ 296	$ 11	$ 116	$ (2)	$ (133)	$ (1)
Non-qualifying hedge relationships						
Commodity forwards	—	—	—	—	—	—
Foreign currency swaps	476	33	216	5	(253)	112
Foreign currency forwards	(37)	412	134	123	(76)	(125)
Interest rate contracts	(103)	—	(8)	—	9	—
Purchased credit default swaps	—	—	—	—	—	—
Total non-qualifying hedge relationships	$ 336	$ 445	$ 342	$ 128	$ (320)	$ (13)
Derivatives used for other than hedging purposes	—	3	—	26	—	15
Total derivatives	$ 632	$ 459	$ 458	$ 152	$ (453)	$ 1

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, 35 and 37 (DJ.NA.IG.25, DJ.NA.IG.27, DJ.NA.IG.29, DJ.NA.IG.31, DJ.NA.IG.33, DJ.NA.IG.35 and DJ.NA.IG37, 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, 31, 33, 35,and 37 (DJ.NA.HY.27, DJ.NA.HY.31, DJ.NA.HY.33, DJ.NA.HY.35 and DJ.NA.HY.37 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):

		December 31, 2022			December 31, 2021		
RSAT NAIC Designation	**Referenced Credit Obligation**	**CDS Notional Amount**	**CDS Estimated Fair Value**	**Weighted Average Years to Maturity**	**CDS Notional Amount**	**CDS Estimated Fair Value**	**Weighted Average Years to Maturity**
1 Highest quality	Single name credit default swaps	$ —	$ —	—	$ —	$ —	—
	Credit default swaps on indices	12,533	744	4	11,007	740	4
	Subtotal	12,533	744	4	11,007	740	4
2 High quality	Single name credit default swaps	—	—	—	—	—	—
	Credit default swaps on indices	5	1	4	96	9	2
	Subtotal	5	1	4	96	9	2
3 Medium quality	Single name credit default swaps	—	—	—	—	—	—
	Credit default swaps on indices	—	—	—	—	—	—
	Subtotal	—	—	—	—	—	—
	Total	$ 12,538	$ 745	8	$ 11,103	$ 749	6

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 millions)					
	December 31, 2022			December 31, 2021		
	Notional	Carrying Value	Estimated FV	Notional	Carrying Value	Estimated FV
Qualifying hedge relationships						
Asset swaps						
Assets	$ —	$ —	$ —	$ —	$ —	$ —
Liabilities	1,210	—	(266)	1,210	—	(423)
Foreign currency swaps						
Assets	3,561	292	421	1,358	57	122
Liabilities	548	(27)	(19)	2,050	(96)	(67)
Total qualifying hedge relationships	$ 5,319	$ 265	$ 136	$ 4,618	$ (39)	$ (368)
Non-qualifying hedge relationships						
Commodity forwards						
Assets	$ —	$ —	$ —	$ —	$ —	$ —
Liabilities	—	—	—	—	—	—
Interest rate swaps						
Assets	50	—	(10)	166	12	9
Liabilities	4,201	(90)	(90)	—	—	—
Foreign currency swaps						
Assets	6,364	713	713	4,144	327	327
Liabilities	506	(29)	(29)	2,502	(105)	(105)
Foreign currency forwards						
Assets	2,740	132	132	1,715	48	48
Liabilities	2,764	(139)	(139)	2,486	(17)	(17)
Purchased credit default swaps						
Assets	—	—	—	—	—	—
Liabilities	30	—	—	131	(1)	(1)
Total non-qualifying hedge relationships	$ 16,655	$ 587	$ 577	$ 11,144	$ 264	$ 261
Derivatives used for other than hedging purposes						
Written credit default swaps						
Assets	$ 11,123	$ 783	$ 762	$ 11,003	$ 625	$ 747
Liabilities	1,415	(42)	(17)	100	(1)	2
Asset swaps and total return swaps						
Assets	10	—	(2)	10	—	(2)
Liabilities	—	—	—	—	—	—
Total derivatives used for other than hedging purposes	$ 12,548	$ 741	$ 743	$ 11,113	$ 624	$ 747
Total derivatives	$ 34,522	$ 1,593	$ 1,456	$ 26,875	$ 849	$ 640

For the year ended December 31, 2022 and 2021, the average fair value of derivatives used for other than hedging purposes, was $662 million and $463 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	2022	2021
TIAA Real Estate Account	$ 31,000	$ 28,844
TIAA Separate Account VA-3	15,313	18,395
TIAA Separate Account VA-1	1,062	1,416
TIAA Stable Value	3,007	2,600
Total	$ 50,382	$ 51,255

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):

	2022			
	Non-indexed Guarantee less than/ equal to 4%	Non-indexed Guarantee more than 4%	Non-guaranteed Separate Accounts	Total
Premiums, considerations or deposits	$ 837	$ —	$ 4,347	$ 5,184
Reserves				
For accounts with assets at:				
Fair value	$ —	$ —	$ 46,032	$ 46,032
Amortized cost	2,870	—	—	2,870
Total reserves	$ 2,870	$ —	$ 46,032	$ 48,902
By withdrawal characteristics:				
Subject to discretionary withdrawal:				
At book value without market value adjustment and with current surrender charge of 5% or less*	$ 2,870	$ —	$ —	$ 2,870
At fair value	—	—	46,032	46,032
Total reserves	$ 2,870	$ —	$ 46,032	$ 48,902

*Withdrawable at book value without adjustment or charge.

	2021			
	Non-indexed Guarantee less than/ equal to 4%	Non-indexed Guarantee more than 4%	Non-guaranteed Separate Accounts	Total
Premiums, considerations or deposits	$ 665	$ —	$ 4,443	$ 5,108
Reserves				
For accounts with assets at:				
Fair value	$ —	$ —	$ 47,883	$ 47,883
Amortized cost	2,497	—	—	2,497
Total reserves	$ 2,497	$ —	$ 47,883	$ 50,380
By withdrawal characteristics:				
Subject to discretionary withdrawal:				
At book value without market value adjustment and with current surrender charge of 5% or less*	$ 2,497	$ —	$ —	$ 2,497
At fair value	—	—	47,883	47,883
Total reserves	$ 2,497	$ —	$ 47,883	$ 50,380

*Withdrawable at book value without adjustment or charge.

	2020			
	Non-indexed Guarantee less than/ equal to 4%	Non-indexed Guarantee more than 4%	Non-guaranteed Separate Accounts	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 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):

	2022	2021	2020
Transfers reported in the Summary of Operations of the separate accounts statement:			
Transfers to separate accounts	$ 5,565	$ 5,755	$ 5,631
Transfers from separate accounts	(5,971)	(4,953)	(8,343)
Reconciling adjustments:			
Fund transfer exchange gain (loss)	(1)	—	(1)
Transfers reported in the Summary of Operations of the Life, Accident & Health Annual Statement	$ (407)	$ 802	$ (2,713)

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, 2022 and 2021 is the greater of those prescribed under VM-21 and Regulation 213. The Company did not have a material difference in the reported reserve for variable annuities as a result of the floor prescribed under Regulation 213 for the periods ending December 31, 2022 and 2021.

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):

	December 31, 2022	December 31, 2021
Deferred and payout annuity contracts issued after 2000	$ 3,962	$ 3,988

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 and the NYDFS Special Considerations Letter, which specifies certain requirements related to reserves and asset adequacy analysis. After discussions with the NYDFS, the Company determined that its reserves are sufficient to meet its obligations for the years ending December 31, 2022 and 2021.

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 are based on historical experience and set equal to a percentage of expected 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, 2022 and 2021, the Company had $167 million and $201 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):

	2022				
INDIVIDUAL ANNUITIES:	General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
Subject to Discretionary Withdrawal:					
At fair value	$ —	$ —	$ 25,778	$ 25,778	13.6 %
At book value without adjustment (minimal or no charge or adjustment)	30,991	—	—	30,991	16.3 %
Not subject to discretionary withdrawal	133,091	—	—	133,091	70.1 %
Total (direct + assumed)	$164,082	$ —	$ 25,778	$189,860	100.0 %
Reinsurance ceded	—	—	—	—	
Total (net)	$164,082	$ —	$ 25,778	$189,860	

INDIVIDUAL ANNUITIES:	2021 General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
Subject to Discretionary Withdrawal:					
At fair value	$ —	$ —	$ 26,938	$ 26,938	14.1 %
At book value without adjustment (minimal or no charge or adjustment)	31,721	—	—	31,721	16.5 %
Not subject to discretionary withdrawal	133,034	—	—	133,034	69.4 %
Total (direct + assumed)	$ 164,755	$ —	$ 26,938	$191,693	100.0 %
Reinsurance ceded	—	—	—	—	
Total (net)	$ 164,755	$ —	$ 26,938	$191,693	

GROUP ANNUITIES:	2022 General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
Subject to Discretionary Withdrawal:					
At fair value	$ —	$ —	$ 20,239	$ 20,239	23.9 %
At book value without adjustment (minimal or no charge or adjustment)	35,960	2,861	—	38,821	45.7 %
Not subject to discretionary withdrawal	25,782	—	—	25,782	30.4 %
Total (direct + assumed)	$ 61,742	$ 2,861	$ 20,239	$ 84,842	100.0 %
Reinsurance ceded	—	—	—	—	
Total (net)	$ 61,742	$ 2,861	$ 20,239	$ 84,842	

GROUP ANNUITIES:	2021 General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
Subject to Discretionary Withdrawal:					
At fair value	$ —	$ —	$ 20,930	$ 20,930	25.7 %
At book value without adjustment (minimal or no charge or adjustment)	33,510	2,488	—	35,998	44.1 %
Not subject to discretionary withdrawal	24,592	—	—	24,592	30.2 %
Total (direct + assumed)	$ 58,102	$ 2,488	$ 20,930	$ 81,520	100.0 %
Reinsurance ceded	—	—	—	—	
Total (net)	$ 58,102	$ 2,488	$ 20,930	$ 81,520	

DEPOSIT-TYPE CONTRACTS: (no life contingencies)	2022 General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
Subject to Discretionary Withdrawal:					
At fair value	$ —	$ —	$ 16	$ 16	0.2 %
At book value without adjustment (minimal or no charge or adjustment)	1,278	8	—	1,286	15.5 %
Not subject to discretionary withdrawal	7,016	—	—	7,016	84.3 %
Total (direct + assumed)	$ 8,294	$ 8	$ 16	$ 8,318	100.0 %
Reinsurance ceded	—	—	—	—	
Total (net)	$ 8,294	$ 8	$ 16	$ 8,318	

DEPOSIT-TYPE CONTRACTS: (no life contingencies)	2021 General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
Subject to Discretionary Withdrawal:					
At fair value	$ —	$ —	$ 15	$ 15	0.4 %
At book value without adjustment (minimal or no charge or adjustment)	1,274	9	—	1,283	38.0 %
Not subject to discretionary withdrawal	2,081	—	—	2,081	61.6 %
Total (direct + assumed)	$ 3,355	$ 9	$ 15	$ 3,379	100.0 %
Reinsurance ceded	—	—	—	—	
Total (net)	$ 3,355	$ 9	$ 15	$ 3,379	

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 $2,254 million, $2,125 million and $1,894 million to its various subsidiaries and affiliates for the years ended December 31, 2022, 2021 and 2020, 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 $518 million, $563 million, and $610 million for the years ended December 31, 2022, 2021 and 2020, respectively.

TC Services maintains a Distribution Agreement with the Company under which TC Services is the principal underwriter and distributor for variable annuity contracts issued by the Company. Such activities performed by TC Services are reimbursed at cost. 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 were on a cost reimbursement basis through December 31, 2021. The Distribution Agreement covering proprietary and non-proprietary mutual funds was amended as of January 1, 2022, whereby the Company will no longer provide cost reimbursements to TC Services for this service. The Company paid $9 million, $225 million and $274 million for the years ended December 31, 2022, 2021 and 2020, respectively.

The Company has 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 $81 million, $84 million, and $91 million for the years ended December 31, 2022, 2021, and 2020, 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, distributes registered securities for certain proprietary funds and non-proprietary mutual funds.

The Company has 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 $164 million, $187 million and $210 million to Advisors and $333 million, $278 million and $269 million to Nuveen Alternatives Advisers, LLC, for the years ended December 31, 2022, 2021 and 2020, respectively.

The Company has 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, 2022, 2021 and 2020.

The Company has 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 $15 million, $16 million and $16 million to Nuveen Services, LLC for the years ended December 31, 2022, 2021, and 2020, 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 $153 million, $140 million, and $140 million for the periods ended December 31, 2022, 2021 and 2020, respectively.

The Company provides certain separate account guarantees, including a liquidity guarantee to REA, and is compensated for these guarantees. See Note 20 Contingencies and Guarantees for additional information on separate account guarantees.

The Company has 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 $5 million, $11 million and $7 million to the Bank for the years ended December 31, 2022, 2021 and 2020, respectively.

The Bank exited the mortgage loan servicing business during 2022 and no longer services certain residential mortgage loans held by the Company. As of December 31, 2021, the Company held $459 million of residential mortgage loans that were serviced by the Bank.

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 $108 million, $145 million, and $118 million to Nuveen Investments for the years ended December 31, 2022, 2021, and 2020, 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 $37 million, $39 million, and $52 million to TEPS for the years ended December 31, 2022, 2021, and 2020, 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 $84 million, $73 million, and $83 million to TFI for the years ended December 31, 2022, 2021, and 2020, 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 $112 million, $85 million, and $74 million to TIAA India for the years ended December 31, 2022, 2021, and 2020, respectively.

The Company has 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 $36 million, $35 million, and $30 million to MyVest for the years ended December 31, 2022, 2021, and 2020, respectively. The Company agrees to provide MyVest administrative services for use in its day to day operations. MyVest reimbursed the Company for administrative services in the amount of $2 million, $1 million, and $1 million for each of the years ended December 31, 2022, 2021 and 2020, respectively.

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 to the Bank for each of the years ended December 31, 2022, 2021, and 2020.

Effective April 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 serves 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 pays TSS compensation it receives (and TSS reimburses the Company for disbursements it makes) relating to the provision of administrative services for the Company. The Company also reimburses 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 also provides to TSS any services necessary to conduct its operations, and TSS reimburses the Company at cost for these services. TSS reimbursed the Company $600 million and $340 million for the years ended December 31, 2022 and 2021, respectively.

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, 2022 or December 31, 2021.

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

	12/31/2022			12/31/2021			Change		
	(1) Ordinary	(2) Capital	(3) (Col 1+2) Total	(4) Ordinary	(5) Capital	(6) (Col 4+5) Total	(7) (Col 1–4) Ordinary	(8) (Col 2–5) Capital	(9) (Col 7+8) Total
a) Gross Deferred Tax Assets	$ 4,663	$ 2,132	$ 6,795	$ 4,869	$ 914	$ 5,783	$ (206)	$ 1,218	$ 1,012
b) Statutory Valuation Allowance Adjustments	—	—	—	—	—	—	—	—	—
c) Adjusted Gross Deferred Tax Assets (a–b)	4,663	2,132	6,795	4,869	914	5,783	(206)	1,218	1,012
d) Deferred Tax Assets Non-admitted	1,905	875	2,780	1,794	130	1,924	111	745	856
e) Subtotal Net Admitted Deferred Tax Asset (c-d)	2,758	1,257	4,015	3,075	784	3,859	(317)	473	156
f) Deferred Tax Liabilities	1,673	1,043	2,716	1,450	729	2,179	223	314	537
g) Net Admitted Deferred Tax Assets/(Net Deferred Tax Liability) (e–f)	$ 1,085	$ 214	$ 1,299	$ 1,625	$ 55	$ 1,680	$ (540)	$ 159	$ (381)

Admission Calculation Components SSAP No. 101	12/31/2022			12/31/2021			Change		
	(1) Ordinary	(2) Capital	(3) (Col 1+2) Total	(4) Ordinary	(5) Capital	(6) (Col 4+5) Total	(7) (Col 1–4) Ordinary	(8) (Col 2–5) Capital	(9) (Col 7+8) Total
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)	1,085	214	1,299	1,625	55	1,680	(540)	159	(381)
1. Adjusted Gross DTA Expected to be Realized Following the Balance Sheet Date	1,085	214	1,299	1,625	55	1,680	(540)	159	(381)
2. Adjusted Gross DTA Allowed per Limitation Threshold	XXX	XXX	6,206	XXX	XXX	6,189	XXX	XXX	17
c) Adjusted Gross DTA (Excluding The Amount Of DTA From (a) and (b) above) Offset by Gross DTL	1,673	1,043	2,716	1,450	729	2,179	223	314	537
d) DTA Admitted as the result of application of SSAP No. 101. Total ((a)+(b)+(c))	$ 2,758	$ 1,257	$ 4,015	$ 3,075	$ 784	$ 3,859	$ (317)	$ 473	$ 156

	2022	2021
Ratio percentage used to determine recovery period and threshold limitation amount	1,055%	1,088%
Amount of adjusted capital and surplus used to determine the threshold limitation in (b)2 above (in millions)	$41,374	$41,259

Impact of Tax Planning Strategies: (in millions)	12/31/2022		12/31/2021		Change	
	(1) Ordinary	(2) Capital	(3) Ordinary	(4) Capital	(5) (Col 1–3) Ordinary	(6) (Col 2–4) Capital
Determination of adjusted gross DTAs and net admitted DTAs, by tax character as a percentage						
Adjusted Gross DTAs Amount From Above	$ 4,663	$ 2,132	$ 4,869	$ 914	$ (206)	$ 1,218
Percentage Of Adjusted Gross DTAs By Tax Character Attributable To The Impact Of Tax Planning Strategies	— %	— %	— %	— %	— %	— %
Net Admitted Adjusted Gross DTAs Amount From Above	$ 2,758	$ 1,257	$ 3,075	$ 784	$ (317)	$ 473
Percentage Of Net Admitted Adjusted Gross DTAs By Tax Character Admitted Because Of The Impact Of Tax Planning Strategies	18.61 %	— %	17.93 %	— %	0.68 %	— %

The Company supports the admittance of $513 million of DTA with $3,714 million of tax planning strategies. 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):

	2022	2021	2020
Current Income Tax:			
Federal income tax expense (benefit)	$ (717)	$ (139)	$ (352)
Foreign taxes	1	1	—
Subtotal	$ (716)	$ (138)	$ (352)
Federal income taxes expense on net capital gains	254	447	439
Generation/(utilization) of loss carry-forwards	463	(308)	(87)
Intercompany tax sharing expense/(benefit)	(81)	(271)	(22)
Other	—	4	10
Federal and foreign income tax expense / (benefit)	$ (80)	$ (266)	$ (12)

	12/31/2022	12/31/2021	Change
Deferred Tax Assets:			
Ordinary:			
Policyholder reserves	$ 11	$ 476	$ (465)
Investments	416	412	4
Policyholder dividends accrual	475	420	55
Fixed assets	163	182	(19)
Compensation and benefits accrual	430	456	(26)
Net operating loss carry-forward	318	108	210
Other (including items < 5% of total ordinary tax assets)	600	423	177
Intangible assets – business in force and software	2,250	2,392	(142)
Subtotal	$ 4,663	$ 4,869	$ (206)
Statutory valuation allowance adjustment	$ —	$ —	$ —
Non-admitted	1,905	1,794	111
Admitted ordinary deferred tax assets	$ 2,758	$ 3,075	$ (317)
Capital:			
Investments	$ 2114	$ 892	$ 1,222
Real estate	18	22	(4)
Subtotal	$ 2,132	$ 914	$ 1,218
Statutory valuation allowance adjustment	$ —	$ —	$ —
Non-admitted	875	130	745
Admitted capital deferred tax assets	1,257	784	473
Admitted deferred tax assets	$ 4,015	$ 3,859	$ 156

	12/31/2022	12/31/2021	Change
Deferred Tax Liabilities:			
Ordinary:			
Investments	$ 1,518	$ 1,243	$ 275
Reserves transition adjustment	154	205	(51)
Other (including items < 5% of total ordinary tax liabilities)	1	2	(1)
Subtotal	$ 1,673	$ 1,450	$ 223
Capital:			
Investments	$ 1,043	$ 729	$ 314
Subtotal	$ 1,043	$ 729	$ 314
Deferred tax liabilities	$ 2,716	$ 2,179	$ 537
Net Deferred Tax:			
Assets/Liabilities	$ 1,299	$ 1,680	$ (381)

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, 2022 are as follows (in millions):

Description	Tax Effect	Effective Tax Rate
Provision computed at statutory rate	$ (86)	21.00 %
Dividends received deduction	(117)	28.62 %
Transfer Pricing Adjustment	16	(3.90) %
Amortization of interest maintenance reserve	(112)	27.24 %
Statuatory impairment of affiliated common stock	291	(70.81) %
Other permanent differences	2	(0.52) %
Prior year true-ups (TIAA & Subs)	20	(4.94) %
Prior year true-ups (TIAA & Subs) - Tax Credits	(83)	20.18 %
Tax Impact of Affiliate Transaction	(183)	44.70 %
Current Year Non-Admitted Assets	(97)	23.73 %
Other	(2)	0.39 %
Total statutory income taxes	$ (351)	85.69 %
Federal and foreign income tax expense (benefit) - Ordinary	(80)	19.59 %
Federal and foreign income tax expense (benefit) - Capital	—	— %
Change in net deferred income tax charge (benefit)	(271)	66.10 %
Total statutory income taxes	$ (351)	85.69 %

As of December 31, 2022, the Company had the following net operating loss carry forwards (in millions):

Year Incurred	Net Operating Losses	Year of Expiration
2022	$ 1,512	Indefinite
Total	$ 1,512	

As of December 31, 2022, the Company had the following foreign tax credit carry forwards (in millions):

Year Incurred	Foreign Tax Credit	Year of Expiration
2015	$ 23	2025
2019	3	2029
2021	4	2031
Total	$ 30	

As of December 31, 2022, the Company has no taxes available for recoupment in the event of future losses.

At December 31, 2022, the Company had the following net capital loss carry forwards (in millions):

Year Incurred	Net Capital Losses	Year of Expiration
2019	$ 7	2024
Total	$ 7	

At December 31, 2022, the Company has general business credits of $112 million generated during the years 2004 to 2021 and expiring between 2024 to 2041.

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) T-C Europe Holding, Inc.
16) T-C SP, Inc.
17) Terra Land Company
18) TIAA-CREF Life Insurance Company
19) TIAA Board of Governors
20) TIAA-CREF Tuition Financing, Inc.
21) TIAA Commercial Finance, Inc.
22) TIAA FSB Holdings, Inc.
23) TIAA, FSB
24) Tygris Asset Finance, Inc.
25) Tygris Commercial Finance Group, Inc.
26) Westchester Group Farm Management, Inc.
27) Westchester Group Investment Management Holding Company, Inc.
28) Westchester Group Investment Management, Inc.
29) 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 receivable (payable) from the Company's subsidiaries for federal income taxes are ($46) million and $7 million at December 31, 2022 and 2021, respectively.

The Company's tax years 2018 through 2021 are open to examination by the Internal Revenue Service ("IRS').

The Inflation Reduction Act ("Act") was enacted during the reporting period on August 16, 2022. The Act included a new corporate alternative minimum tax ("CAMT") which is a 15 percent tax on an applicable corporation's "adjusted financial statement income" for the tax year, reduced by corporate alternative minimum foreign tax credits. The tax is effective for tax years beginning after 2022.

Under general statutory accounting principles, reporting entities filing statutory financial statements would normally have to consider the applicability of the CAMT, and if applicable, determine the impact on the statutory valuation allowance as well as assess DTAs for admissibility. Pursuant to guidance released by the Statutory Accounting Principles Working Group ("SAPWG") within INT 22-02, though the Company expects to be an applicable corporation for CAMT in 2023, the Company has not included an estimate of the impact of the CAMT within the year end 2022 financial statements, because a reasonable estimate cannot be made at this time.

Note 17 - 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 as 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, 2022 and 2021, 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, 2022 and 2021 that resulted in default.

As of December 31, 2022 and 2021, 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, 2022, the estimated fair value of the Company's securities on loan under the program was $1,297 million. The estimated fair value of collateral held by the Company for the securities on loan as of December 31, 2022, was reported in "Securities lending collateral assets" with an offsetting collateral liability of $1,328 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, 2022.

Of the cash collateral received from the program, $1,328 million is held as cash or reinvested in overnight, government backed, repurchase agreements as of December 31, 2022. 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 as of December 31, 2022 (in millions):

	Amortized Cost	Fair Value
Open	$ 1,328	$ 1,328
Total collateral reinvested	$ 1,328	$ 1,328

As of December 31, 2021 the estimated fair value of the Company's securities on loan under the program was $2,190 million. The estimated fair value of collateral held by the Company for the securities on loan as of December 31, 2021, was reported in "Securities lending collateral assets" with an offsetting collateral liability of $2,247 million included in "Payable for collateral for securities loaned." This collateral received was cash was cash and had not been sold or re-pledged as of December 31, 2021.

Of the cash collateral received from the program, $2,247 million was held as cash as of December 31, 2021. 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 as of December 31, 2021 (in millions):

	Amortized Cost	Fair Value
Open	$ 2,247	$ 2,247
Total collateral reinvested	$ 2,247	$ 2,247

Note 18 - 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 $17,428 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):

	2022	2021
Membership stock - class A	$ —	$ —
Membership stock - class B	50	89
Activity stock	319	97
Excess stock	—	—
Total	$ 369	$ 186

There were no FHLBNY capital stock held in separate accounts as of December 31, 2022 and 2021.

Membership stock at December 31, 2022 and 2021, is not eligible for redemption.

The Company had $6,985 million and $2,080 million in funding agreements and $100 million and $75 million in debt outstanding at December 31, 2022 and December 31, 2021 respectively.

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

	2022			2021		
	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Total	$ 9,561	$ 9,796	$ 8,478	$ 3,729	$ 3,352	$ 3,387

There was no collateral pledged to FHLBNY in the separate accounts during the years ended December 31, 2022 and 2021.

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

	2022	2021
Debt	$ 2,148	$ 2,750
Funding agreements	6,330	637
Total	$ 8,478	$ 3,387

There were no borrowings from FHLBNY in the separate accounts during the year ended December 31, 2022 and 2021.

The following table shows the collateral pledged to FHLB in the general account as of December 31, 2022 and 2021 (in millions):

	2022			2021		
	Fair Value	Carrying Value	Aggregate Total Borrowing	Fair Value	Carrying Value	Aggregate Total Borrowing
Total	$ 7,998	$ 8,780	$ 7,085	$ 2,377	$ 2,139	$ 2,155

There was no collateral pledged to FHLB in the separate account as of December 31, 2022 and 2021.

Note 19 – 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):

	2022	2021	2020
Net income (loss)	$ (408)	$ 3,872	$ 604
Change in net unrealized capital gains (losses), net of taxes	(612)	1,645	(678)
Change in asset valuation reserve	1,776	(2,485)	463
Change in net deferred income tax	271	(1,088)	(200)
Change in non-admitted assets	(1,289)	1,029	(301)
Change in post-retirement benefit liability	10	(1)	(8)

As of December 31, 2022 and 2021, the portion of contingency reserves represented by cumulative net unrealized gains was $3,264 million and $3,943 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 Governors, 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, 2022 (in millions):

Date Issued	Interest Rate	Original Issue Amount of Note	Carrying Value of Note Prior Year	Carrying Value of Note Current Year	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	$ 935	$ 950	12/16/2039
09/18/2014	4.900 %	1,650	1,649	1,649	81	646	—	09/15/2044
09/18/2014	4.375 % *	350	349	349	15	122	—	09/15/2054
05/08/2017	4.270 %	2,000	1,995	1,995	86	472	—	05/15/2047
05/07/2020	3.300 %	1,250	1,248	1,248	41	104	—	05/15/2050
Total		$ 7,250	$ 6,290	$ 6,290	$ 295	$ 2,279	$ 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% (see note below) 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.

Note: Three-Month USD LIBOR will cease to be published after June 30, 2023. TIAA's $350 million in surplus notes maturing in 2054 include fallback language if LIBOR is unavailable, which establishes a new annual rate, subject to further interpretation based on the NY law and any federal law that may be passed.

For the years ended December 31, 2022 and 2021, 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 20 – Contingencies and Guarantees

Subsidiary and Affiliate Guarantees:

At December 31, 2022, 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, 2022, 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, 2022.

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, 2022, is $1,240 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. $75 million of this facility is maintained on a committed basis with an expiration date of June 30, 2023. As of December 31, 2022, 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, 2022, 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 6, 2023. As of December 31, 2022, 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 22, 2023. As of December 31, 2022, there were no balances outstanding.

The Company also provides a $200 million unsecured revolving line of credit arrangement with T-C M-T REIT LLC. This line has an open ended expiration date and is effective until terminated. As of December 31, 2022, $84 million was outstanding.

The Company also provides a $200 million unsecured revolving line of credit arrangement with T-C S-T REIT LLC. This line of credit has an open ended expiration date and is effective until terminated. As of December 31, 2022, there was no balance 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, 2022, 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 21– Subsequent Events

In preparing these financial statements, the Company has evaluated events and transactions for potential recognition or disclosure through March 9, 2023, the date the financial statements were available to be issued.