

The Penn Mutual Life Insurance Company

2022 Consolidated GAAP Financial Statements



Report of Independent Auditors

To the Board of Trustees of The Penn Mutual Life Insurance Company

Opinion

We have audited the accompanying consolidated financial statements of The Penn Mutual Insurance Company and its subsidiaries (the "Company"), which comprise the consolidated balance sheets as of December 31, 2022 and 2021, and the related consolidated statements of operations, of comprehensive income, of changes in equity and of cash flows for the years then ended, including the related notes (collectively referred to as the "consolidated financial statements").

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

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 Consolidated 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 opinion.

Responsibilities of Management for the Consolidated Financial Statements

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

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 Consolidated 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 consolidated 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 consolidated 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.

Pringer techning oppers LLP

Philadelphia, Pennsylvania February 17, 2023

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Consolidated Balance Sheets

December 31,		2022		2021
ASSETS				
Investments:				
Debt securities, at fair value:				
Available for sale	\$	19,205,751	\$	20,856,04
Trading		471,175		533,53
Equity securities, at fair value, available for sale		64,209		98,50
Real estate, net of accumulated depreciation		31,486		35,31
Policy loans		1,149,448		1,036,13
Alternative assets		1,677,432		1,700,37
Derivatives		388,346		1,033,29
Other invested assets		608,157		610,49
TOTAL INVESTMENTS		23,596,004		25,903,70
Cash		113,405		182,46
Investment income due and accrued		235,575		196,49
Deferred acquisition costs		4,256,856		2,499,72
Amounts recoverable from reinsurers		930,145		952,76
Broker/dealer receivables		3,057,957		3,021,73
Other assets		1,191,712		1,305,40
Separate account assets		8,168,559		10,128,59
TOTAL ASSETS	\$	41,550,213	\$	44,190,88
LIABILITIES AND EQUITY Liabilities:				
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Reserves for future policy benefits	\$	9,827,254	Ş	8,555,69
Other policyholder funds		13,822,144		12,123,47
Broker/dealer payables		2,618,535		2,631,92
Deferred tax liabilities		608,297		863,5
Debt		924,815		915,72
Derivatives		504,557		1,145,72
Other liabilities		1,782,429		1,797,98
Separate account liabilities		8,168,559		10,128,59
TOTAL LIABILITIES		38,256,590		38,162,62
Equity:				
Retained earnings		5,267,605		5,090,71
Accumulated other comprehensive (loss)/income		(1,982,213)		929,32
Noncontrolling interest		8,231		8,21
TOTAL EQUITY		3,293,623		6,028,25
TOTAL LIABILITIES AND EQUITY	\$	41,550,213	Ł	44,190,88

Consolidated Statements of Operations

Years Ended December 31,	2022	2021
REVENUES		
Premium and annuity considerations	\$ 1,896,749	\$ 1,528,993
Policy fee income	666,713	585,873
Net investment income	957,506	1,418,511
Net investment losses	(160,972)	(130,111
Broker/dealer fees and commissions	1,153,107	1,054,726
Other income	55,089	87,641
Total revenues	4,568,192	4,545,633
BENEFITS AND EXPENSES		
Benefits paid to policyholders and beneficiaries	1,185,963	1,156,974
Policyholder dividends	153,341	117,658
Increase in reserves for future policy benefits	1,414,671	1,136,209
General expenses	795,459	792,130
Broker/dealer sales expense	642,289	634,918
Amortization of deferred acquisition costs	164,618	62,585
Total benefits and expenses	4,356,341	3,900,474
Income before income taxes	211,851	645,159
Income tax expense	33,288	121,869
Net income	178,563	523,290
Net (loss)/income attributable to noncontrolling interest	 (955)	 390
Net income attributable to Penn Mutual	\$ 179,518	\$ 522,900

Consolidated Statements of Comprehensive (Loss)/Income

Years Ended December 31	2022	2021
Net income	\$ 178,563 \$	523,290
Other comprehensive income/(loss)		
Unrealized gains/(losses) on investments:		
Unrealized (losses)/gains arising during the period, net of taxes of \$(689,325) and \$(82,900)	(2,593,175)	(311,865
Reclassification adjustments included in net income, net of taxes of \$12,518 and \$225	47,092	847
UNREALIZED LOSSES	(2,546,083)	(311,018
Valuation Allowance	(369,063)	_
UNREALIZED LOSSES, net of Valuation Allowance	(2,915,146)	(311,018)
Funded status of postretirement plans		
Gains arising during the period, net of taxes of \$582 and \$1,380	2,190	5,190
Reclassification adjustments included in net income, net of taxes of \$376 and \$376	1,415	1,416
FUNDED STATUS OF POSTRETIREMENT PLANS	3,605	6,606
Other comprehensive loss	(2,911,541)	(304,412
Comprehensive (loss)/income	\$ (2,732,978) \$	218,878

Consolidated Statements of Changes in Equity

	Accumulated Other Comprehensive Income/(Loss)	Non- Controlling Interest	Retained Earnings		Total Equity
BALANCE AT JANUARY 1, 2021	\$ 1,233,740,000	\$ 6,843	\$ 4,567,226	\$	5,807,809
Net income for 2021	_	390	522,900		523,290
Other comprehensive gain, net of tax	(304,412)	—	—		(304,412)
Comprehensive gain				_	218,878
Change in equity in noncontrolling interest	_	984	587		1,571
BALANCE AT DECEMBER 31, 2021	\$ 929,328	\$ 8,217	\$ 5,090,713	\$	6,028,258
Net income for 2022	_	(955)	179,518		178,563
Other comprehensive loss, net of tax	(2,911,541)	—	—		(2,911,541)
Comprehensive loss				_	(2,732,978)
Change in equity in noncontrolling interest	 	 969	 (2,626)		(1,657)
BALANCE AT DECEMBER 31, 2022	\$ (1,982,213)	\$ 8,231	\$ 5,267,605	\$	3,293,623

Consolidated Statements of Cash Flows

Years Ended December 31,		2022	2021
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$	179,519 \$	522,900
Adjustments to reconcile net income to net cash provided by operating activities:			
Capitalization & Amortization of acquisition costs, net		(239,054)	(327,718
Policy fees & interest credited on universal life and investment contracts		255,351	171,169
Depreciation and amortization		129,725	172,828
Net investment losses		160,972	130,111
Capitalized interest & Stock distributions		(31,291)	(55,533
Change in:			
Investment income due and accrued		(39,083)	(18,304
Amounts recoverable from reinsurers		22,619	32,914
Future policy benefits		1,207,588	1,153,982
Accrued income taxes		51,572	115,169
Net broker/dealer receivables		(49,608)	(106,278
Trading securities		47,373	(17,488
Other assets and liabilities		251,166	(50,573
Net investment income		113,906	(363,700
NET CASH PROVIDED BY OPERATING ACTIVITIES	\$	2,060,755 \$	1,359,480
CASH FLOWS FROM INVESTING ACTIVITIES			
Sale of investments:			
Debt securities, available for sale	\$	1,123,925 \$	865,985
Equity securities		65,778	67,225
Other invested assets		_	5,100
Maturity and other principal repayments:			
Debt securities, available for sale		1,024,547	1,779,570
Alternative assets		227,870	317,817
Derivatives		98,918	131,546
Other		22,002	7,233
Cost of investments acquired:		·	
Debt securities, available for sale		(4,660,849)	(5,178,877
Equity securities		(43,452)	(30,888
Alternative assets		(179,256)	(231,986
Derivatives		(231,880)	(245,751
Other		(38,283)	(6,207
Change in policy loans, net		(113,314)	(13,573
Change in short-term investments		65,316	(67,729
Increase/(decrease) in collateral payable		(372,607)	134,442
Purchases of furniture and equipment, net of dispositions		(25,222)	(11,690
NET CASH USED IN INVESTING ACTIVITIES	\$	(3,036,507) \$	(2,477,783
CASH FLOWS FROM FINANCING ACTIVITIES	Ŷ		(-) () () -)
Policyholder Account Balances:			
Deposits for universal life and investment contracts	\$	3,843,202 \$	1,840,488
Withdrawals from universal life and investment contracts	ب	(3,133,027)	(1,613,522
Transfers from separate accounts, net		190,036	342,344
Change from debt		9,089	496,620
Change in Noncontrolling interest		(2,612)	490,020 1,960
NET CASH PROVIDED BY FINANCING ACTIVITIES	\$		1,067,890
	Ş	(69,064)	(56,338
Net (decrease)/increase in cash		182,469	238,807
Cash, beginning of year CASH, END OF YEAR		113,405 \$	<u> </u>

Notes to Consolidated Financial Statements

Note 1. NATURE OF OPERATIONS AND BASIS OF PRESENTATION

NATURE OF OPERATIONS The Penn Mutual Life Insurance Company ("PML") and its subsidiaries (collectively, "the Company") offer a wide range of insurance and investment products including life insurance, annuities, and investment products, as well as advisory services. PML, a Pennsylvania domiciled mutual life insurance company, concentrates primarily on the sale of individual life insurance and annuity products. PML and its wholly owned life insurance subsidiary, The Penn Insurance and Annuity Company ("PIA"), primarily market traditional whole life, term life, fixed universal life, indexed universal life, variable universal life, immediate annuity and fixed and variable deferred annuity products through a network of career and independent financial professionals. PML is licensed to sell its products in forty-nine states and the District of Columbia. In addition, the Company offers a variety of investment products and advisory services through its non-insurance subsidiaries (principally broker/dealer and investment advisory subsidiaries). PIA is domiciled in Delaware and is licensed to sell its products in forty-nine states and the District of Columbia. Vantis Life Insurance Company ("Vantis"), is a direct writer of individual tax deferred annuities, ordinary and group life insurance, and credit insurance. Domiciled in Connecticut, the Company is licensed to sell its products in forty-nine states and the District of Columbia. The Penn Insurance and Annuity Company of New York ("PIANY") is domiciled in New York and licensed to sell its products in that state. Janney Montgomery Scott LLC ("JMS"), a wholly owned subsidiary of the Company and a broker-dealer registered with the Securities Exchange Commission ("SEC"), engages in a broad range of activities in the private wealth management, equity, and fixed income capital markets.

BASIS OF PRESENTATION The accompanying Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and reflect the consolidation of PML and its wholly owned and majority controlled subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

The Company invested with other co-investors in the Penn Mutual Asset Management Multi-Series Funds A and B and the Penn Mutual AM Strategic Income Fund (collectively "PMAM's Private Funds/PMUBX"). As the majority owner, the Company consolidates the funds, and any unaffiliated investors' noncontrolling interest in the fund is reported in "Noncontrolling interest."

PML prepares its regulatory financial statements in accordance with statutory accounting practices prescribed or permitted by the Insurance Department of the Commonwealth of Pennsylvania. PIA and its wholly owned reinsurance company follow statutory practices prescribed or permitted by the Delaware Department of Insurance. Vantis follows statutory practices prescribed or permitted by the Connecticut Insurance Department. PIANY follows statutory practices prescribed or permitted by the Connecticut Insurance Department. PIANY follows statutory practices prescribed or permitted by the New York Department of Financial Services. These are comprehensive bases of accounting other than GAAP (collectively, "statutory accounting principles" or "SAP").

Note 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

USE OF ESTIMATES The preparation of financial statements requires management to make estimates and assumptions that impact the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Those estimates are inherently subject to change and actual results could differ from those estimates. Included among the material reported amounts and disclosures that requires extensive use of estimates are:

- ♦ Fair value of certain invested assets and derivatives
- ◇ Other then temporary impairments ("OTTI")
- ♦ Value of goodwill
- ♦ Capitalization and amortization of deferred acquisition costs ("DAC")
- ◇ Reserves for future policyholder benefits
- Accounting for income taxes and valuation of deferred income tax assets and liabilities and unrecognized tax benefits
- ◇ Litigation and other contingencies
- Pension and other postretirement and postemployment benefits

INVESTMENTS The Company is required to classify its investments into one of three categories: held-to-maturity, available-for-sale, or trading. The Company determines classification of debt securities at the time of purchase. The Company classifies its debt securities (bonds, preferred stocks and mortgage and asset-backed securities) as available-for-sale ("AFS") and trading. AFS securities are reported at fair value, with unrealized gains/(losses) reported in other comprehensive income, net of deferred taxes and related adjustments. Trading securities are held at fair value, with changes in value reported through net investment gains/(losses). Income on debt securities is recognized using the effective yield method of amortization. For mortgage and asset-backed securities ("structured securities") that do not have a fixed schedule of payments and are subject to a non credit rating based on other-than-temporary impairment ("OTTI") review, the effect on amortization or accretion is revalued periodically based on the current estimated cash flow. Cash flow assumptions for structured securities are obtained from broker dealer survey values or internal estimates consistent with the current interest rate and economic environments. These assumptions represent the Company's best estimate of the amount and timing of estimated principal and interest cash flows based on current information and events. Interest on debt securities is recorded as income when earned.

Equity securities are carried at fair value. Unrealized capital gains/(losses) are reported in net investment gains/(losses). Dividends on equity securities are credited to income on their ex-dividend dates.

Real estate occupied by the Company is carried at depreciated cost. Depreciated cost is adjusted for impairments whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable, with the impairment being included in net investment losses. Depreciation is calculated using the straight-line method over the estimated useful life of the real estate holding, not to exceed 40 years. Depreciation expense on real estate is included in net investment income on the Statements of Comprehensive Income.

Cash and cash equivalents includes investments purchased with maturities of three months or less and money market funds.

Policy loans are stated at the aggregate balance of unpaid principal and interest.

Alternative assets are investments in limited partnerships for which the Company applies the equity method of accounting. Due to the timing of the valuation data received from the partnership, these investments are reported in accordance with the most recent valuations received, which are primarily on a one quarter lag.

Other invested assets include short-term investments, low income housing tax credit investments ("LIHTC"), stock held in the Federal Home Loan Banks of Pittsburgh and Boston ("FHLB") and miscellaneous invested assets. Short-term investments, which are carried at amortized cost and approximate fair value, consists of investments purchased with maturities of greater than three months and less than or equal to 12 months. Certain short-term investments are held as collateral for derivative transactions. LIHTC investments are accounted for under the equity method. The delayed equity contributions for these investments are unconditional and legally binding and therefore, have been recognized as a liability. LIHTC investments are reviewed for OTTI which, if identified, is recorded as a net investment loss.

Net investment gains/(losses) on sales are generally computed using the specific identification method and are included in income on the trade date and net of amortization of deferred acquisition costs. Unrealized capital gains/(losses) on investments, and adjustments to deferred acquisition costs and unearned revenue, net of applicable taxes, are accounted for as a separate component of other comprehensive income.

EVALUATING AVAILABLE FOR SALE INVESTMENTS FOR AN OTTI The Company performs a regular evaluation, on a security-by-security basis, of its available for sale investment holdings in accordance with its impairment policy in order to evaluate whether such investments are other-than-temporarily impaired.

The Company considers, amongst other criteria, whether it has the intent to sell a particular impaired available for sale debt security. Decisions to sell are based on current market conditions and information available to the Company at that time. When the Company has determined it has the intent to sell or will be required to sell a security before recovery of its amortized cost, the security will be deemed other-than-temporarily impaired in the period that the sale decision was made and an OTTI loss for the entire difference between the fair value and the amortized cost will be recorded in earnings.

If the Company believes it is more likely than not that it will not be required to sell the security before recovery of its amortized cost, the Company evaluates the security for impairment to determine if the decline in fair value below market value is considered to be other-than-temporary. Factors considered in determining whether a decline in fair value is other-than-temporary include, but is not limited to, the significance of the decline, the length of time a security's fair value is below its amortized cost, current economic conditions, past credit loss experience, estimated future cash flows, and other circumstances of the investment. If the Company concludes that the impairment is other-than-temporary, the Company estimates the present value of the expected future cash flows to be received from the security, and if less than the amortized cost, the security will be deemed other-than-temporarily impaired in that period. This amount is referred to as the credit loss and will be recognized in earnings. Any remaining difference between the present value of the expected future cash flows to be received and the estimated fair value of the security is referred to as the non-credit loss and will be recognized as a separate component of other comprehensive loss. For available for sale debt securities for which an OTTI was recognized in earnings, the decision as to whether or not the difference between the new amortized cost basis and the cash flows expected to be collected should be accreted as interest income is done on a security by security basis.

FHLB stock is evaluated for impairment considering the ultimate recoverability of its par value. When evaluating the ultimate recoverability of par value, the Company considers current facts and circumstances of the FHLB including any declines in the net assets of the FHLB, legislative and regulatory changes impacting the FHLB and the liquidity position of the FHLB. The Company also considers the materiality of the carrying amount of the FHLB stock to the Company and whether it is expected that the Company intends to dispose of the FHLB stock at an amount other than par value.

DERIVATIVE FINANCIAL INSTRUMENTS The Company may utilize various derivatives, including swaps, swaptions, futures, forward contracts, caps and options in conjunction with its management of assets and liabilities and interest rate risk. All derivatives are required to be recorded at fair value. The accounting treatment of specific derivatives depends on whether the financial instrument is designated and qualifies as a highly effective hedge. To qualify as a hedge, the hedge relationship is designated and formally documented at inception by detailing the particular risk management objective and strategy for the hedge. This includes the item and risk that is being hedged, the derivative that is being used, as well as how effectiveness is being assessed and measured. A derivative must be highly effective in accomplishing the objective of offsetting either changes in fair value or cash flows for the risk being hedged to qualify for hedge accounting. The hedging relationship is considered highly effective if the changes in fair value or discounted cash flows of the hedging instrument is within 80%-125% of the inverse changes in the fair value or discounted cash flows of the hedged item. The Company formally assesses effectiveness of its hedging relationships both at the hedge inception and on a quarterly basis. Derivatives are generally recognized at fair value. Derivatives with a positive fair value are reported as assets. Derivatives with a negative fair value are reported as liabilities. The Company does not engage in derivative financial instrument transactions for speculative purposes.

Interest rate swaps, inflation swaps, caps, swaptions, currency swaps and interest rate futures are used to manage risk from interest rate fluctuations. Credit default swaps protect the Company from a decline in credit quality of a specified security. Receiver swaps, a type of interest rate swap, protect the Company from credit risk in the fixed income portfolio. These do not meet the criteria of an effective hedge.

Currency swaps are also used to manage exposure to fluctuation in currency values associated with certain foreign currency denominated bonds.

For a cash flow hedge, in which derivatives hedge the variability of cash flows related to variable rate available-for-sale securities and foreign denominated bonds, the accounting treatment depends on the effectiveness of the hedge. To the extent these derivatives are effective in offsetting the variability of the hedged cash flows, changes in the derivatives' fair value is not included in current earnings, but are reported as other comprehensive income. To the extent these derivatives are not effective, changes in their fair values are included in earnings as a net investment gain/(loss).

For cash flow hedges, when hedge accounting is discontinued because it is probable that a forecasted transaction will not occur, the gain/(loss) that was accumulated in other comprehensive income is recognized immediately as a realized capital gain/(loss). The derivative will continue to be carried on the balance sheet at its fair value with subsequent changes in fair value recorded as a realized capital gain/(loss). When hedge accounting is discontinued because the hedge is terminated, the accumulated gain/(loss) remains in other comprehensive income until the forecasted transaction is no longer

probable. At that time, the accumulated gain or loss is amortized as a realized capital gain/(loss) over the remaining life of the derivative contract.

The Company discontinues hedge accounting prospectively if: (i) it is determined that the derivative is no longer effective in offsetting changes in the fair value or cash flows of a hedged item, (ii) the derivative expires, is sold, terminated, or exercised, (iii) the derivative is de-designated as a hedge instrument, or (iv) it is probable that the forecasted transaction will not occur and the derivative is held at fair value.

The Company utilizes total return swaps, interest rate swaps, inflation swaps, swaptions, financial futures and equity options to hedge risks associated with the offering of equity market based guarantees in the Company's annuity product portfolio. These derivatives do not qualify for hedge accounting. The change in fair value of these derivatives is recognized as a net investment gain/(loss). The Company utilizes equity options in the form of call spreads to hedge equity market risks associated with the offering of indexed universal life insurance products. These derivatives do not qualify for hedge accounting. The realized gains or losses and change in fair value of the call spreads are recognized in benefits paid to policyholders and beneficiaries.

Interest rate caps, inflation swaps, certain interest rate swaps and credit default swaps are carried at fair value and do not qualify for hedge accounting treatment. As a result, the change in the fair value of the derivatives is recognized currently in net investment gains/(losses) in the period of change.

The Company also provides contracts with certain living benefits that are considered embedded derivatives.

DEFERRED ACQUISITION COSTS ("DAC") The costs that are directly related to the successful acquisition or renewal of insurance contracts and incremental direct costs of contract acquisition that are incurred in transactions with either independent third parties or employees have been deferred and recorded as an asset. DAC relating to internal replacements is immediately written off to expense and any new determinable expenses associated with the replacement are deferred.

DAC related to participating traditional and universal life insurance policies and investment type products without mortality risk that include significant surrender charges are being amortized over the lesser of the estimated or actual contract life. Amortization expense is recognized in proportion to gross revenues or estimated gross profits arising principally from interest margins, mortality margins, expense margins and surrender charges. The effects of revisions to estimated gross profits are reflected as adjustments to DAC in the period such estimated gross profits are revised. DAC related to term business is amortized in proportion to premium revenue. The impact of Unrealized Gains and Losses in the investment portfolio on DAC is reflected in Other Comprehensive Income through the Shadow DAC adjustment.

Each year, a formal review of the assumptions underlying the expected gross profits are analyzed and updated as necessary.

DAC is reviewed regularly to determine whether such costs are recoverable based upon future estimated gross profits. The Company has evaluated all DAC balances and concluded these amounts are recoverable at December 31, 2022 and 2021, respectively. Certain costs and expenses reported in the Consolidated Statements of Operations are net of amounts deferred.

OTHER ASSETS Other assets primarily consist of corporate owned life insurance, collateral, fixed assets, taxes receivable, goodwill and intangible assets.

Fixed assets includes, among others, property and equipment, leasehold improvements, computer equipment, and packaged and internally developed software. Fixed assets are stated at cost, less accumulated depreciation and amortization, on a straight-line basis over the estimated useful lives of the related assets. Depreciation and amortization expense was \$11,707 and \$12,560 for the years ended December 31, 2022 and 2021, respectively.

Other assets also includes goodwill and intangible assets. Goodwill and other intangibles with an indefinite useful life are not amortized. All goodwill and indefinite life intangible assets are tested for impairment at least annually. An intangible

asset with a finite life is amortized over its useful life. Intangibles with a finite useful life are tested for impairment when facts and circumstances indicate that its carrying amount may not be recoverable.

FEDERAL HOME LOAN BANK BORROWINGS The Company is a member of the Federal Home Loan Banks of Pittsburgh and Boston, which provide access to collateralized advances, collateralized funding agreements, and other FHLB products. The Company intends to use this access to funds as an additional source of liquidity for its operations and to earn incremental income. Collateralized advances from the FHLB are classified in "Debt" on the Consolidated Balance Sheets. Collateralized funding agreements issued to the FHLB are classified as "Other policyholder funds" on the Consolidated Balance Sheets. FHLB is a first-priority secured creditor.

The Company's membership in FHLB requires the ownership of member stock, and borrowings from FHLB require the purchase of FHLB activity based stock in an amount equal to 4% of the outstanding borrowings. All FHLB stock purchased by the Company is classified as restricted general account investments within "Other invested assets" on the Consolidated Balance Sheets. The Company's borrowing capacity is determined by the lesser of the assets available to be pledged as collateral to FHLB or 10% of the applicable company's prior period admitted general account assets in accordance with statutory accounting principles. The fair value of the qualifying assets pledged as collateral by the Company must be maintained at certain specified levels of the borrowed amount, which can vary, depending on the nature of the assets pledged. The Company's agreement allows for the substitution of assets and the advances are pre-payable. Borrowings would be subject to prepayment penalties.

Dividends received on the FHLB stock are recorded as income when earned. Interest expense incurred on FHLB borrowings classified as funding agreements is included in Benefits paid to policyholders and beneficiaries on the Consolidated Statements of Operations. Interest expense incurred on FHLB borrowings classified as advances is included in General expenses on the Consolidated Statements of Operations.

As of December 31, 2022 and 2021, borrowings from the FHLB, segregated by those classified as advances and funding agreements:

	December 31, 2022					December	2021	
		Outstanding Borrowings		Fair Value		Outstanding Borrowings		Fair Value
Advances (Debt)	\$		\$		\$		\$	
Funding Agreements (Other policyholder funds)		325,000		325,735				—
Total	\$	325,000	\$	325,735	\$	—	\$	

RESERVES FOR FUTURE POLICY BENEFITS Future policy benefits include reserves for participating traditional life insurance and life contingent annuity products; excess death benefit liabilities associated with individual deferred annuities and universal life contracts with secondary guarantees; and excess interest credits from indexed universal life contracts. These liabilities are established in amounts adequate to meet the estimated future obligations of the policies in-force.

Liabilities for participating traditional life products are computed using the net level premium method, using assumptions for investment yields, mortality and morbidity, which are consistent with the dividend fund interest rate and mortality rates used in calculating cash surrender values. Interest rate assumptions used in the calculation of the liabilities for participating traditional life products ranged from 2.25% to 8.50%. Reserves for substandard policies are computed using multiples of the respective underlying mortality tables.

Liabilities for life contingent annuity products are computed by estimating future benefits and expenses. Assumptions are based on the Company's actual experience projected at the time of policy issue with provision for adverse deviations. Interest rate assumptions range from 1.00% to 13.25%.

For some policy guarantees, reserve estimates are established using the Company's best estimate assumptions, which include future investment income, mortality and lapse rates. Each year, a formal review of the assumptions underlying these estimates are analyzed and updated as necessary.

Liabilities that are categorized as embedded derivatives are held at fair value on the balance sheet. These embedded derivatives exist within variable annuities with living benefit riders as well as the index credits associated with fixed indexed annuities and indexed universal life. For the indexed products, the balance is recorded in Reserves for future policy benefits and the change in the fair value is recorded in Benefits paid to policy holders and beneficiaries. For the variable annuities, the balance is recorded in Reserves for future policy benefits and the change in the fair value is recorded in Benefits paid to policy benefits and the change in the fair value is recorded in net investment gains/(losses).

Loss recognition testing occurs on an annual basis to ensure that reserves net of DAC are adequate to meet future policyholder obligations.

OTHER POLICYHOLDER FUNDS Other policyholder funds represent liabilities for universal life and investment-type annuity products. The liabilities for these products are based on the contract account value, which consists of deposits received from customers and investment earnings on the account value, less administrative, mortality and expense charges. The liability for universal life products is also reduced by the cost of insurance charges. Other policyholder funds also include unearned revenue liabilities for certain front-end loads associated with universal life contracts.

Liabilities for the non-life contingent annuity products are computed by estimating future benefits and expenses. Assumptions are based on Company experience projected at the time of policy issue. Interest rate assumptions, based on contractual terms, range from 1.00% to 9.25%.

Contract charges assessed against account values for universal life and investment-type annuities are reflected as policy fee income in revenue. Interest credited to account values and universal life benefit claims in excess of fund values are reflected as Benefits paid to policyholders and beneficiaries.

The Company incurred interest expense of \$8,260 and \$89 for the years ended December 31, 2022 and 2021, respectively, on borrowings from FHLB during the year that were classified as funding agreements.

POLICYHOLDERS' DIVIDENDS PAYABLE As of December 31, 2022 and 2021, participating insurance expressed as a percentage of insurance in-force is 81% and 82%, respectively, and as a percentage of annual premium is 90% and 95%, respectively. The Board of Trustees approves the amount of Policyholders' dividends to be paid annually. The aggregate amount of policyholders' dividends is calculated based on actual interest, mortality, morbidity and expense experience for the year and on management's judgment as to the appropriate level of equity to be retained by the Company. The carrying value of this liability approximates the earned amount and fair value at December 31, 2022 and 2021.

OTHER LIABILITIES Other liabilities includes but is not limited to pension and OPEB liabilities, prepaid premiums, accrued expenses, value of business acquired, policyholder dividends payable and policyholder claims payable.

BROKER/DEALER RECEIVABLES AND PAYABLES Broker/dealer transactions in securities and listed options, including related commission revenue and expense, are recorded on a trade-date basis.

SEPARATE ACCOUNT ASSETS AND LIABILITIES The Company has separate account assets and liabilities representing segregated funds administered and invested by the Company primarily for the benefit of variable life insurance policyholders and annuity and pension contract holders, including the Company's benefit plans. The assets of each account are legally segregated and are not subject to claims that arise out of any other business of the Company. The separate accounts have varying investment objectives. At December 31, 2022 and 2021, all separate account assets are stated at the fair value of the underlying assets, which are primarily mutual funds. The value of the assets in the separate accounts reflects the actual investment performance of the respective accounts and is not guaranteed by the Company. The liability at December 31, 2022 and 2021 represents the policyholders' interest in the account and includes accumulated net investment income and realized and unrealized capital gains/(losses) on the assets, which generally reflects fair value. The investment income and net investment gains/(losses) from separate account assets accrue to the policyholders and are not included in the Consolidated Statements of Operations. Mortality, policy administration and surrender charges

assessed against the accounts are included in Policy fee income in the accompanying Consolidated Statements of Operations. Asset management fees charged to the accounts are included in Other income in the accompanying Consolidated Statements of Operations.

The Company issues variable annuity contracts in the separate accounts in which the Company provides various forms of guarantees to benefit the related contract holders called Guaranteed Minimum Death Benefits ("GMDB"), Guaranteed Minimum Accumulated Benefits ("GMAB"), GMAB/Guaranteed Minimum Withdrawal Benefits ("GMWB"), and GMWB with inflation protection. In accordance with guarantees provided, if the investment proceeds in the separate accounts are insufficient to cover the guarantees for the product, the policyholder proceeds will be remitted by the general account.

NET INVESTMENT INCOME Net investment income primarily includes interest income, including amortization of premium and accretion of discount, prepayment fees and dividend income and is net of related investment expenses.

NET INVESTMENT GAINS/(LOSSES) Primarily include realized gains (losses) from sales and disposals of investments.

RECOGNITION OF INCOME AND RELATED EXPENSES Premiums from traditional participating life insurance policies, term life policies and annuity policies with life contingencies are recognized as income when due. The associated benefits and expenses are matched with income so as to result in the recognition of profits over the life of the contracts. This match is accomplished by providing for liabilities for future policy benefits and the deferral and subsequent amortization of deferred acquisition costs.

Amounts received under universal life-type contracts are reported as deposits to policyholders' account balances. Revenues from these contracts consist of amounts assessed during the period for mortality and expense risk, policy administration, and surrender charges, and are included as Policy fee income in the Consolidated Statements of Operations. In addition to fees, the Company earns investment income from the investment of policyholders' deposits in the Company's general account portfolio.

Amounts previously assessed to compensate the Company for services to be performed over future periods are deferred and recognized into income over the period benefited, using the same assumptions and factors used to amortize DAC costs. Policy benefits and claims that are charged to expense include benefit claims incurred in the period in excess of related policyholders' account balances.

Premiums for contracts with a single premium or a limited number of premium payments due over a significantly shorter period than the total period over which benefits are provided are recorded as income when due. Any excess profit is deferred and recognized as income in a constant relationship to insurance in-force and, for annuities, in relation to the amount of expected future benefit payments.

BROKER/DEALER FEES AND COMMISSIONS Commissions earned on securities transactions, including the related revenue and expenses, are recorded on a trade date basis. Management and underwriting fees are recorded as of the commitment date. Other revenue is recorded as earned.

BROKER/DEALER SALES EXPENSE These include commissions paid, other compensation and other general operating expenses related to the Company's Broker/Dealer operations.

FEDERAL INCOME TAXES Current federal income taxes are charged or credited to operations based upon amounts estimated to be payable or recoverable as a result of taxable operations for the current year and any adjustments to such estimates from prior years. Deferred federal income tax assets ("DTAs") and liabilities ("DTLs") are recognized for expected future tax consequences of temporary differences between GAAP and taxable income. Temporary differences are identified and measured using a balance sheet approach whereby GAAP and tax balances are compared. Deferred income taxes are generally recognized based on enacted tax rates and a valuation allowance is recorded if it is more likely than not that any portion of the deferred tax asset will not be realized.

Uncertain tax positions ("UTP") are established when the merits of a tax position are evaluated against certain measurement and recognition tests. UTP changes are reflected as a component of income taxes.

Any disproportionate tax effects lodged in accumulated other comprehensive income are cleared to income under an aggregate portfolio approach, i.e. the disproportionate tax effect remains intact as long as the investment portfolio remains.

The Company files a consolidated federal income tax return with its life insurance subsidiaries.

REINSURANCE In the normal course of business, the Company seeks to limit its exposure to loss on any single insured and to recover a portion of benefits paid by ceding reinsurance to other insurance enterprises or reinsurers under excess coverage and coinsurance contracts. The Company has set its retention limit for acceptance of risk on life insurance policies at various levels up to \$7,500 for single life and \$10,000 for joint lives.

Reinsurance does not relieve the Company of its primary liability and, as such, failure of reinsurers to honor their obligations could result in losses to the Company. The Company evaluates the risk transfer of its reinsurance contracts and the financial strength of potential reinsurers. The Company regularly monitors the financial condition and ratings of its existing reinsurers to ensure that amounts due from reinsurers are collectible.

Insurance liabilities are reported before the effects of reinsurance. Reinsurance receivables (including amounts related to ceded life insurance liabilities) are reported as assets in Amounts recoverable from reinsurers. Estimated reinsurance recoverables are recognized in a manner consistent with the liabilities related to the underlying reinsured contracts.

BENEFIT PLANS The Company follows guidance which requires an employer on a prospective basis to recognize the funded status of its defined benefit pension and post retirement plans as an asset or liability in its Consolidated Balance Sheets and to recognize changes in that funded status through comprehensive income in the year in which the changes occur.

CONTINGENCIES Amounts related to contingencies are accrued if it is probable that a liability has been incurred and an amount is reasonably estimable.

NEW ACCOUNTING PRONOUNCEMENTS

Effective December 15, 2021, FASB updated the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The Company adopted the guidance as of December 31, 2021. The revised guidance eliminated the disclosure requirement regarding expected amortization amounts for non-public entities.

Effective January 1, 2021, FASB guidance was updated for hedging activities with an objective to better align an entity's risk management activities and financial reporting from hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. The adoption of this guidance did not have an impact on the Company.

Effective January 1, 2022, FASB guidance is updated to establish a new accounting model for leases. Lessees recognize most leases on the balance sheet as a right-of-use asset and a related lease liability. The recognition, measurement, and presentation of expenses and cash flows arising from a lease have not significantly changed. The adoption of this guidance did not have a significant impact on the Company's consolidated financial statements.

RECENT ACCOUNTING DEVELOPMENTS

Effective January 1, 2023, the FASB guidance requires the use of a new current expected credit loss ("CECL") model to account for expected credit losses on certain financial assets reported at amortized cost (e.g., loans held for investment, fixed maturities held-to-maturity, reinsurance receivables, etc.) and certain off-balance sheet credit exposures (e.g., indemnification of serviced mortgage loans and certain loan commitments). The guidance requires an entity to estimate lifetime credit losses related to such financial assets and credit exposures based on relevant information about past events, current conditions, and reasonable and supportable forecasts that may affect the collectability of the reported amounts. The standard also modifies the OTTI guidance for fixed maturities, available-for-sale requiring the use of an allowance rather than a direct write-down of the investment. The Company has assessed this guidance on its consolidated financial statements and expects the impact it to be immaterial.

Effective January 1, 2025, FASB guidance is updated for the recognition, measurement, presentation, and disclosure requirements for long-duration contracts issued by an insurance entity. The Company is currently assessing the impact of this guidance on its consolidated financial statements.

Note 3. INVESTMENTS

AFS DEBT SECURITIES AFS securities are carried at fair value. Amortized cost is net of \$13,481 and \$11,178 cumulative write-downs determined by management to be other than temporary declines in value as of December 31, 2022 and 2021, respectively. The distribution of unrealized capital gains/(losses) on investments in AFS debt securities at December 31, 2022 and 2021 is presented below.

		 Gro				
December 31, 2022:	Amortized Cost	Gains	Losses	ſ	Non-credit Losses	Fair Value
US Governments	\$ 1,068,201	\$ 1,004	\$ 66,957	\$	_	\$ 1,002,248
Other Governments	12,994		599			12,395
States, Territories and Possessions	104,979	1,497	6,301			100,175
Political Subdivisions	548,358	2,312	88,604			462,066
Special Revenue	1,839,173	12,387	305,303		—	1,546,257
Industrial and Miscellaneous	9,782,739	55,708	1,346,397		—	8,492,050
Residential Mortgage-backed Securities	1,412,359	1,091	173,312		—	1,240,138
Commercial Mortgage-backed Securities	2,867,661	5,333	232,899		—	2,640,095
Asset-backed Securities	3,436,259	5,133	239,761		—	3,201,631
Hybrid Securities	442,313	1,418	43,227		—	400,504
SVO Identified Funds	1,641		455		—	1,186
Bank Loans	3,037	67	27		_	3,077
Preferred Stock	122,722	2	18,795			103,929
Total AFS securities	\$ 21,642,436	\$ 85,952	\$2,522,637	\$		\$ 19,205,751

				Gross Unrealized Capital						
December 31, 2021:	Amortized Cost			Gains		Losses	٢	Non-credit Losses		Fair Value
US Governments	\$	1,004,897	\$	4,836	\$	14,209	\$	—	\$	995,524
Other Governments		14,258		1,074		4		—		15,328
States, Territories and Possessions		72,175		14,001		35		—		86,141
Political Subdivisions		448,914		40,473		948		—		488,439
Special Revenue		1,634,001		178,656		6,134		—		1,806,523
Industrial and Miscellaneous		8,863,549		1,140,214		29,549		—		9,974,214
Residential Mortgage-backed Securities		1,117,998		12,649		6,166		—		1,124,481
Commercial Mortgage-backed Securities		2,676,000		115,328		14,741		—		2,776,587
Asset-backed Securities		2,937,375		48,150		24,376		—		2,961,149
Hybrid Securities		440,575		32,666		1,280		—		471,961
SVO Identified Funds		7,885				1,236		—		6,649
Bank Loans		3,718		81		9		_		3,790
Preferred Stock		139,475		6,800		1,014		—		145,261
Total AFS securities	\$	19,360,820	\$1	,594,928	\$	99,701	\$		\$	20,856,047

The amortized cost and fair value of AFS securities as of December 31, 2022 by contractual maturity is presented below. Expected maturities may differ from contractual maturities because borrowers may have the right to call or repay obligations with or without call or prepayment penalties.

2022					
Amortized Cost	Fair Value				
\$ —	\$ —				
336,947	335,253				
2,394,820	2,290,468				
11,071,668	9,394,237				
1,412,359	1,240,138				
2,867,661	2,640,095				
3,436,259	3,201,631				
122,722	103,929				
\$ 21,642,436	\$ 19,205,751				
	Cost \$ — 336,947 2,394,820 11,071,668 1,412,359 2,867,661 3,436,259 122,722 122,722				

(1) Includes U.S. Agency structured securities

Mortgage and other asset-backed securities are presented separately in the maturity schedule due to the potential for prepayment. The weighted average life of these securities is estimated at 10.34 years.

Residential mortgage backed securities ("Residential MBS"), Commercial mortgage backed securities ("Commercial MBS") and Asset-backed securities follow a structured principal repayment schedule and 97% are of investment grade. Securities totaling \$1,325,323 are rated AAA.

At December 31, 2022, the largest industry concentration of the Company's portfolio was investments in Electric-Integrated of \$1,114,059, representing 6% of the total AFS portfolio.

The gross gains realized on sales were \$3,197 and \$10,367, and the gross losses realized on sales were \$89,596 and \$18,865 during 2022 and 2021, respectively. During 2022 and 2021, the Company recognized investment losses of \$169 and \$65, respectively, related to impairment of AFS securities.

The Company's investment portfolio of AFS securities is predominantly comprised of investment grade securities. At December 31, 2022 and 2021, AFS securities with fair value totaling \$553,560 and \$865,764, respectively, were less than investment grade.

The Company accrues interest income on debt securities to the extent it is deemed collectible and the security continues to perform under its original contractual terms.

Credit Loss Rollforward The following table represents a rollforward of the cumulative credit loss component of OTTI losses recognized in earnings on fixed maturity securities still held for which a portion of the OTTI loss was recognized in other comprehensive loss.

For the year ended December 31:	2022	2021
Balance, beginning of period	\$ 8,853 \$	11,262
Credit loss impairments previously recognized on securities that matured, paid down, prepaid or were sold during the period	(362)	(2,409)
Credit loss impairments previously recognized on securities impaired to fair value during the period	_	_
Credit loss impairment recognized in the current period on securities not previously impaired	4,989	_
Additional credit loss impairments recognized in the current period of securities previously impaired		
Balance, end of period	\$ 13,480 \$	8,853

UNREALIZED LOSSES ON INVESTMENTS Management has determined that the unrealized losses on the Company's investments in fixed maturity securities at December 31, 2022 are temporary in nature.

The following tables present the gross unrealized capital losses and fair values for AFS securities with unrealized capital losses that are deemed to be only temporarily impaired, aggregated by investment category and length of time that individual securities have been in an unrealized capital loss position, at:

	<u>Less than</u>	12 months		<u>r than 12</u> nths		<u>Total</u>	
December 31, 2022:	Fair Value	Gross Unrealized Capital Losses	Fair Value	Gross Unrealized Capital Losses	Fair Value	Gross Unrealized Capital Losses	Number of Securities
US Governments	\$ 236,169	\$ 10,622	\$ 716,363	\$ 56,335	\$ 952,532	\$ 66,957	57
Other Governments	7,395	599		—	7,395	599	2
States, Territories and Possessions	60,205	6,064	1,763	237	61,968	6,301	1
Political Subdivisions	262,950	48,694	99,061	39,910	362,011	88,604	104
Special Revenue	847,781	134,046	410,200	171,257	1,257,981	305,303	314
Industrial and Miscellaneous	5,870,284	795,426	1,425,654	550,971	7,295,938	1,346,397	1,967
Residential Mortgage-backed Securities	836,869	82,996	377,298	90,316	1,214,167	173,312	237
Commercial Mortgage-backed Securities	1,979,924	150,919	504,198	81,980	2,484,122	232,899	490
Asset-backed Securities	1,508,944	97,346	1,363,283	142,415	2,872,227	239,761	435
Hybrid Securities	346,463	37,510	30,488	5,717	376,951	43,227	61
SVO Identified Funds	—	—	1,186	455	1,186	455	1
Bank Loans	1,201	27	—	_	1,201	27	1
Preferred Stock	86,219	14,406	17,555	4,389	103,774	18,795	32
Total AFS securities	\$12,044,404	\$ 1,378,655	\$4,947,049	\$ 1,143,982	\$16,991,453	\$ 2,522,637	3,702

	<u>Less than</u>	<u>n 12 months</u> <u>Greater than 12</u> <u>months</u>				<u>Total</u>			
December 31, 2021:	Fair Value	Gross Unrealized Capital Losses	Fair Value	Gross Unrealized Capital Losses	Fair Value	Gross Unrealized Capital Losses	Number of Securities		
US Governments	\$ 610,176	\$ 8,129	\$ 118,516	\$ 6,080	\$ 728,692	\$ 14,209	16		
Other Governments	4,996	4	—	—	4,996	4	1		
Political Subdivisions	1,965	35	—		1,965	35	1		
States, Territories and Possessions	50,165	749	11,647	199	61,812	948	10		
Special Revenue	303,774	3,932	19,636	2,202	323,410	6,134	59		
Industrial and Miscellaneous	887,301	17,640	257,257	11,909	1,144,558	29,549	68		
Residential Mortgage-backed Securities	567,697	4,920	20,997	1,246	588,694	6,166	34		
Commercial Mortgage-backed Securities	415,024	5,117	119,173	9,624	534,197	14,741	137		
Asset-backed Securities	1,608,191	11,723	218,403	12,653	1,826,594	24,376	145		
Hybrid Securities	23,084	902	2,122	378	25,206	1,280	7		
SVO Identified Funds	83	10	6,566	1,226	6,649	1,236	2		
Bank Loans	1,873	9	—	—	1,873	9	2		
Preferred Stock	11,711	25	15,779	989	27,490	1,014	6		
Total AFS securities	\$4,486,040	\$ 53,195	\$ 79 0,0 96	\$ 46,506	\$ 5,276,136	\$ 99,701	488		

EQUITY SECURITIES The gross gains realized on sales were \$686 and \$3,438 for 2022 and 2021, respectively. The gross losses realized on sales were \$25,668 and \$10,909 for 2022 and 2021, respectively. Equity securities had a change in fair value recognized in net investment losses of \$4,845 and \$(1,740) as of December 31, 2022 and 2020, respectively.

ALTERNATIVE ASSETS The investment values are provided per the partnerships' capital account statements. With the exception of one open-ended investment within the portfolio, the Company's interest cannot be redeemed. Instead, distributions from each fund result from the liquidation of the underlying assets.

Unfunded commitments for Alternative Assets were \$537,479 and \$555,939 for the years ended December 31, 2022 and 2021.

Net unrealized investment capital gains/(losses) on alternative assets that were classified as investment income aggregated \$(104,148) and \$376,810 for the years ended December 31, 2022 and 2021, respectively. Net unrealized investment capital gains/(losses) classified as net investment gains/(losses) were \$0 and \$0 for the years ended December 31, 2022 and 2021, respectively. The Company did not recognize capital losses on closed partnerships for the years ended December 31, 2022 and 2021.

OTHER INVESTED ASSETS The components of other invested assets as of December 31, 2022 and 2021 were as follows:

	2022	2021
Short-term investments	\$ 487,692 \$	553,004
LIHTC	93,203	41,335
FHLB stock (restricted)	17,127	5,977
Mortgage loans	—	2
Other	10,135	10,175
Total other invested assets	\$ 608,157 \$	610,493

The Company invests in LIHTC investments that generate tax credits for investing in affordable housing projects. Investors in entities operating qualified affordable housing projects receive tax benefits in the form of tax deductions from operating losses and tax credits.

The remaining unfunded commitments relating to LIHTC investments of \$76,359 and \$18,046 for the years ended December 31, 2022 and 2021, respectively, have been recorded in Other liabilities. The Company has no LIHTC properties under regulatory review at December 31, 2022. Impairment is determined by comparing the book value of the investment with the present value of future tax benefits. The investment is written down if the book value is higher than the present value and the write-down is accounted for as a realized loss. There were no net realized gains/(losses) attributed to impairments and related adjustments for the years ended December 31, 2022 and 2021. There were no write-downs due to forfeiture of eligibility.

RESTRICTED ASSETS AND SPECIAL DEPOSITS The Company maintains assets on deposit with governmental authorities or trustees as required by certain state insurance laws. The Company also receives and pledges collateral for derivative contracts and FHLB in the form of cash and securities. Capital stock was purchased as a requirement to participate in the FHLB lending program.

Balance Sheet Classification	Туре	2022	2021
Debt securities – Available for sale	Collateral – FHLB	\$ 881,115	\$ —
Debt securities – Available for sale	Reinsurance agreements	5,106,870	4,691,763
Debt securities – Available for sale	New York 109 trust agreement	3,686,741	3,851,580
Debt securities – Available for sale	Collateral – Derivatives	199,724	310,831
Debt securities – Available for sale	State deposit	8,321	10,703
Equity securities – Common stock unaffiliated	Reinsurance agreements	14,047	27,786
Cash	Collateral – Derivatives	_	343,018
Cash	State deposit	16,892	5,977
Other invested assets	FHLB stock	4,113	5,422
Total restricted assets		\$ 9,917,823	\$ 9,247,080

NET INVESTMENT INCOME The components of net investment income are summarized as follows for the years ended:

December 31,		2021		
AFS securities	\$	879,252	\$	761,296
Equity securities		4,284		4,933
Policy loans		52,575		51,007
Alternative assets		49,675		619,158
Derivatives		(11,288)		14,350
Other invested assets		14,386		(1,337)
Other investment income		(892)		194
Gross investment income		987,992		1,449,601
Less: Investment expense		30,486		31,090
Net investment income	\$	957,506	\$	1,418,511

NET INVESTMENT GAINS/(LOSSES) The components of net investment gains/(losses) on investments were as follows for the years ended:

December 31,	2022	2021
AFS securities	\$ (94,283)	\$ 3,810
Trading securities	(21,503)	16,123
Equity securities	(20,137)	(9,212)
Derivatives	37,991	(165,570)
Other invested assets	(3,043)	(27)
Change in reserve for guaranteed living benefit riders	(64,951)	9,373
Amortization of deferred acquisition costs	4,954	15,392
Net investment losses	\$ (160,972)	\$ (130,111)

Note 4. DERIVATIVES

The Company utilizes derivatives to achieve its risk management goals. Exposure to risk is monitored and analyzed as part of the Company's asset/liability management process, which focuses on risks that impact liquidity, capital, and income. The Company may enter into derivative transactions to hedge exposure to interest rate, credit, liability, currency, and cash flow risks. The Company may use forward contracts, swaps, futures, equity options, swaptions, caps, floors, collars and options on futures to mitigate these risks.

Derivative Instruments Designated and Qualifying as Cash Flow Hedges

The Company has entered into total return swaps that qualify for hedge accounting. The total return swaps have been designated as cash flow hedges of the cashflows related to a deferred award program for employees of a subsidiary. Unrealized gains or losses related to the total return swaps that are reclassified from accumulated other comprehensive income into earnings are recorded in General expense on the Consolidated Statements of Operations. The net receipts/ payments from these total return swaps are recorded on the Company's Consolidated Statements of Operations.

Derivative instruments used in cash flow hedges that meet the criteria of a highly effective hedge are valued and reported in a manner that is consistent with the hedged asset or liability. The maximum length of time over which the Company is hedging its exposure to cashflows related to a deferred award program is 7 years.

Derivative Instruments Not Designated and Not Qualifying as Hedging Instruments

The Company enters into interest rate caps, interest rate and equity futures, currency swaps, forward contracts, interest rate and treasury swaps, inflation swaps and equity options that do not qualify for hedge accounting.

These instruments are carried at fair value. Instruments with a positive fair value are reported as an asset on the Consolidated Balance Sheets. Instruments with a negative fair value are reported as a liability on the Consolidated Balance Sheets. The Company's use of interest rate caps is designed to manage risk associated with rising interest rates. The Company may use "to be announced" forward contracts to gain exposure to the investment risk and return of mortgage-backed securities.

The Company uses interest rate swaps to reduce market risks from changes in interest rates; the Company uses inflation swaps as an economic hedge to reduce inflation risk associated with inflation-indexed liabilities.

The Company offers a variety of variable annuity programs with guaranteed minimum balance or guaranteed withdrawal benefits. The contract holders may elect to invest in equity funds. Adverse changes in the equity markets expose the Company to losses if the changes result in contract holder's account balances falling below the guaranteed minimum. To mitigate the risk associated with these liabilities, the Company enters into equity futures, total return swaps and equity options. The changes in value of the futures and options will offset a portion of the changes in the annuity accounts relative to changes in the equity market. Adverse changes in the interest rate environment also expose the Company to losses from its variable annuity products. To mitigate this interest rate risk, the Company enters into interest rate swaps, interest rate futures, treasury swaps, treasury forwards and swaptions.

The Company offers Indexed Universal Life products that have an embedded option with guaranteed returns. The Company uses equity options in the form of call spreads for protection from rising equity levels and rising volatility. Realized and unrealized gains and losses related to these equity options are recorded in Benefits paid to policyholders and beneficiaries.

When entering into a derivative transaction, there are several risks, including but not limited to basis risk, credit risk, and market risk. Basis risk is the exposure to loss from imperfectly matched positions, and is monitored and minimized by modifying or terminating the transaction. Credit risk is the exposure to loss as a result of default or a decline in credit rating of a counterparty. Credit risk is addressed by establishing and monitoring guidelines on the amount of exposure to any particular counterparty. Market risk is the adverse effect that a change in interest rates, currency rates, implied volatility rates, or a change in certain equity indexes or instruments has on the value of a financial instrument. The Company manages the market risk by establishing and monitoring limits as to the types and degree of risk that may be undertaken. Also, the Company requires that an International Swaps and Derivatives Association Master Agreement ("ISDA Master Agreement" or "ISDA") govern all Over-the-Counter ("OTC") derivative contracts. In addition, as a result of Dodd Frank Title VII, interest rate swaps are centrally cleared through an exchange.

The following tables present the notional values and fair values for derivative financial instruments designated and qualifying as hedging instruments and derivative financial instruments not designated and not qualifying as hedging instruments. For those derivatives carried at fair value, fair values showing a gain are reported in Other invested assets, while fair values showing a loss are reported in Other liabilities.

Consistent with the definition set by the Chicago Mercantile Exchange ("CME") and LCH.Clearnet ("LCH"), the Company offsets the variation margin payments with the derivative balances that are cleared through CME and LCH.

December 31,		2022	2021					
Number of		ber of Notional Fair '		/alue	Number of	Notional	Fair V	alue
	Contracts	Value	Gain	Loss	Contracts	Value	Gain	Loss
Cash Flow Hedges								
Total return swaps	49	\$ 79,845	\$ —	\$ (406)	7	\$ 92,745	\$ 275	\$ —
Total Designated and Qualifying Hedges	49	\$ 79,845	\$ —	\$ (406)	7	\$ 92,745	\$ 275	\$ —

Derivative Instruments Designated and Qualifying as Hedging Instruments

December 31,		2022	2021			
	Notional	Fair Va	alue	Notional	Fair	Value
	Value	Gain	Loss	Value	Gain	Loss
Currency futures	\$ 23,263 \$	3,812 \$; —	\$ 23,263	\$ 2,359	\$ —
Equity futures	181,474	—		140,268	52	(577)
Equity options	6,264,735	264,695	(147,009)	6,486,187	735,560	(460,793)
Inflation swaps	260,000	4,891	(6,092)	175,000	5,587	(1,418)
Interest rate futures	78,008	29	(5)	(4,533)	(197)	(390)
Interest rate swaps	14,335,001	4,661	(8,011)	16,288,501	15	68
Swaptions	1,170,000	3,024	(4,763)	155,000	2	(737)
Total return swaps	5,325,844	103,615	(324,833)	2,843,973	279,987	(651,500)
Treasury forwards	147,000	_	(13,438)	347,000	5,705	(6,529)
Treasury swaps		_		200,000		(23,704)
Treasury futures	—	3,619	_	89,866	3,947	(143)
Total not Designated and not Qualifying Hedges	\$27,785,325 \$	5 388,346 \$	504,151)	\$26,744,525	\$1,033,017	\$(1,145,723)

Derivative Instruments Not Designated and Not Qualifying as Hedging Instruments

There was no net investment income or net investment gains/(losses) on derivative instruments designated and qualifying as hedging instruments during the years ended December 31, 2022 and 2021.

The following table presents the impact of derivative financial instruments not designated and not qualifying as hedging instruments on the Consolidated Statements of Operations.

Derivative Instruments Not Designated and Not Qualifying as Hedging Instruments

Years Ended December 31,		2022		2021				
	Net Investment Income/(Loss)	Net Investment Gains/(Losses)	Benefits Paid to Policyholders and Beneficiaries	Net Investment Income/(Loss)	Net Investment Gains/(Losses)	Benefits Paid to Policyholders and Beneficiaries		
Currency swaps	\$ —	·\$ 1,538	\$ —	\$ —	\$ 17	\$ —		
Equity futures	877	(18,004)		730	23,878			
Equity options		. (17,418)	(56,417)		(32,344)	166,188		
Inflation swaps	4,318	(75)		6,853	8,936			
Interest rate futures		. (399)			(3,470)			
Interest rate swaps	(24,475) (54,515)		5,729	(112,564)			
Swaptions		. 85			440			
Total return swaps	9,729	164,062		710	(39,849)			
Treasury forwards		(29,488)			(10,614)			
Treasury swaps		. (7,795)						
Treasury futures	(1,737) —		328		—		
Total not Designated and not Qualifying Hedges	\$ (11,288)\$ 37,991	\$ (56,417)	\$ 14,350	\$ (165,570)	\$ 166,188		

The following table presents the components of accumulated other comprehensive income related to cash flow hedges designated and qualifying as hedging instruments, after income tax, for the years ended 2022 and 2021, respectively. Amounts attributable to the discontinued cash flow hedges, prior to dedesignation, shall continue to be reported in accumulated other comprehensive income unless it becomes probable that the forecasted transactions will not occur by the end of the originally specified time period or within an additional two-month period of time thereafter.

December 31,	2022	2021
Accumulated other comprehensive income, beginning of period	\$ 7,617 \$	6,112
Gains deferred in OCI on the effective portion of cash flow hedges	(13,677)	16,910
Amounts reclassified to net income within the following line items:		
Net investment losses	6,135	(15,405)
Accumulated other comprehensive income, end of period	\$ 75 \$	7,617

Existing gains and losses recorded in accumulated other comprehensive income designated and qualifying as cash flow hedges as of December 31, 2022 expected to be reclassified as earnings during the year ended December 31, 2021 are \$2,728. This amount pertains to the Company's total return swaps classified designated and qualifying as cash flow hedges and excludes potential market risk related impacts.

CREDIT RISK The Company is exposed to credit related losses in the event of non-performance by counterparties to derivative financial instruments. In order to minimize credit risk in derivative transactions executed over the counter and for over the counter centrally cleared swaps ("OTC cleared"), the Company and its derivative counterparties require collateral to be posted in the amount owed under each transaction, subject to minimum transfer amounts. Additionally, the ISDA with the counterparties allow for contracts in a positive position to be offset by contracts in a negative position. This right of offset or "netting", combined with the collateral obtained from counterparties, reduces the Company's exposure. The Company settles collateral with each counterparty daily. The net unsettled position to the Company as of December 31, 2022 and 2021 is \$35,144 and \$13,334, respectively. The cash received from held collateral that is not invested in an interest bearing money market fund is invested mainly in fixed income securities. Bonds pledged as collateral are reported in invested assets.

For futures contracts, notional or contractual amounts of derivative financial instruments provide a measure of involvement in these types of transactions and do not represent the amounts exchanged between the parties engaged in the transaction. The amounts exchanged are determined by reference to the notional amounts and other terms of the derivative financial instruments.

Years Ended December 31,	2022	2021
Total collateral held	\$ (311,544) \$	(633,709)
Total collateral pledged	462,898	732,805

The following table presents the derivative collateral as of December 31:

Note 5. FAIR VALUE OF FINANCIAL INSTRUMENTS

FAIR VALUE MEASUREMENT Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value measurement is based on assumptions market participants would make in pricing an asset or liability. The inputs to valuation techniques used to measure fair value are prioritized by establishing a three-level fair value hierarchy. The fair value hierarchy gives the highest priority to quoted prices in active markets and the lowest priority to prices derived from unobservable inputs. An asset or liability's classification within the fair value hierarchy is based on the lowest level of significant input to its fair value measurement.

The Company has categorized its assets and liabilities into the three-level fair value hierarchy based upon the priority of the inputs. The following summarizes the types of assets and liabilities included within the three-level hierarchy:

(\$ in Thousand	5)
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- Level 1 Fair value is based on unadjusted quoted market prices in active markets for identical assets or liabilities that are accessible at the measurement date. These generally provide the most reliable evidence and are used to measure fair value whenever available. Active markets are defined as having the following for the measured asset/liability: i) many transactions, ii) current prices, iii) price quotes not varying substantially among market makers. iv) narrow bid/ask spreads and v) most information publicly available. Prices are obtained from readily available sources for market transactions involving identical assets or liabilities.
- Level 2 Fair value is based on significant inputs, other than quoted prices included in Level 1, that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability through corroboration with observable market data. Prices for assets classified as Level 2 are primarily provided by an independent pricing service and internally priced securities using observable inputs. In circumstances where prices from pricing services are reviewed for reasonability but cannot be corroborated to observable market data as noted above, these security values are recorded in Level 3 in the Company's fair value hierarchy.
- Level 3 Fair value is based on significant inputs that are unobservable for the asset or liability. These inputs reflect the Company's assumptions about the assumptions market participants would use in pricing the asset or liability. These are typically less liquid fixed maturity securities with very limited trading activity. Prices are determined using valuation methodologies such as option pricing models, discounted cash flow models, market approach and other similar techniques. Prices may be based upon non-binding quotes from brokers or other market makers that are reviewed for reasonableness based on the Company's understanding of the market but are not further corroborated with other additional observable market information.

The determination of fair value, which for certain assets and liabilities is dependent on the application of estimates and assumptions, can have a significant impact on the Company's results of operations. The following sections describe the valuation methodologies used to determine fair values as well as the key estimates and assumptions surrounding certain assets and liabilities, measured at fair value on a recurring basis, that could have a significant impact on the Company's results of operations or involve the use of significant unobservable inputs.

AFS SECURITIES The fair values of the Company's debt securities are generally based on quoted market prices, prices obtained from independent pricing services or pricing developed internally by the Company's investment manager.

The Company's investment manager reviews valuations received from the independent pricing services, and, for certain investment securities, may challenge the valuations received. Investment security valuations that are challenged may result in a change a security valuation price from that initially received from the independent pricing service. In these instances, investment securities will be classified within Level 3 of the fair value hierarchy if unobservable inputs are used to develop the ultimate security valuation price.

In circumstances where market data such as quoted market prices or vendor pricing is not available, estimated fair value is calculated by the Company's investment manager using internal estimates based on significant observable inputs, if available. Inputs considered in developing internal pricing vary by type of security; however generally include: public debt, industrial comparables, underlying assets, credit ratings, yield curves, type of deal structure, collateral performance, loan characteristics and various indices, as applicable. Internally priced securities using significant observable inputs are classified within Level 2 of the fair value hierarchy, which generally include the Company's investments in privately-placed corporate securities and investments in certain structured securities that are priced using observable market data. Inputs considered for these securities generally include: public corporate bond spreads, industry sectors, average life, internal ratings, security structure, liquidity spreads, credit spreads and yield curves, as applicable. If the discounted cash flow model incorporates significant unobservable inputs, these securities would be reflected within Level 3 in the Company's fair value hierarchy.

In circumstances where significant observable inputs are not available for internally priced securities, estimated fair value is calculated by the Company's investment manager by using unobservable inputs. These inputs reflect the Company's assumptions about the inputs market participants would use in pricing the asset, and are therefore included in Level 3 in

the Company's fair value hierarchy. Circumstances where observable market data is not available may include events such as market illiquidity and credit events related to the security.

The Company's Level 3 debt securities generally include certain structured securities priced using one or multiple broker quotes, asset backed trust preferred debt, auction rate securities, and certain public and private debt securities priced based on observable and unobservable inputs.

Significant inputs used in valuing the Company's Level 3 debt securities include: issue specific credit adjustments, illiquidity premiums, estimation of future collateral performance cash flows, default rate assumptions, acquisition cost, market activity for securities considered comparable and non-binding quotes from certain market participants. Certain of these inputs are considered unobservable, as not all market participants will have access to this data.

TRADING SECURITIES The fair values of most publicly traded securities are based on quoted market prices in active markets for identical assets and are classified within Level 1 in the Company's fair value hierarchy. Level 2 securities include those not actively traded and priced based on similar assets traded in active markets and securities where the fair value is based on vendor prices. All other securities are priced as Level 3.

PREFERRED STOCK The fair values of publicly traded preferred stock securities are based on quoted market prices in active markets for identical assets and are classified within Level 1 in the Company's fair value hierarchy. The fair values of non-exchange traded preferred equity securities are based on prices obtained from independent pricing services. Accordingly, these securities are classified within Level 2 in the Company's fair value hierarchy. Preferred stock that is priced using less observable inputs are generally classified within Level 3 of the fair value hierarchy.

EQUITY SECURITIES Equity securities consist principally of investments in common stock of publicly traded companies, exchange traded funds and closed-end funds. The fair values of most publicly traded common stock securities are based on quoted market prices in active markets for identical assets and are classified within Level 1 in the Company's fair value hierarchy. Privately placed common stock securities for which there is no open market are classified within Level 3 of the fair value hierarchy.

DERIVATIVE INSTRUMENTS The fair values of derivative contracts are determined based on quoted prices in active exchanges or prices provided by counterparties, exchanges or clearing members as applicable, utilizing valuation models. The fair values of derivative contracts can be affected by changes in interest rates, foreign exchange rates, commodity prices, credit spreads, market volatility, expected returns and liquidity as well as other factors. Fair values can also be affected by changes in estimates and assumptions including those related to counterparty behavior used in valuation models.

The Company's exchange traded futures that are valued using quoted prices in active markets are classified within Level 1 in our fair value hierarchy.

Derivative positions traded in the OTC and cleared OTC derivative markets where fair value is determined by third party independent services are classified within Level 2. These investments include: interest rate swaps, currency swaps, Treasury swaps, interest rate caps, total return swaps, swaptions, equity options, inflation swaps, forward contracts, and credit default swaps. OTC derivatives classified within Level 2 are valued using models generally accepted in the financial services industry that use actively quoted or observable market input values from external market data providers, broker-dealer quotations, third-party pricing vendors, discounted cash flow models and/or recent trading activity. Prices are reviewed by investment professionals through comparison with directly observed recent market trades, comparison with valuations estimated through the use of valuation models maintained on an industry standard analytical and valuation platform, or comparison of all significant inputs used by the pricing service to observations of those inputs in the market.

OTHER INVESTED ASSETS Other invested assets consists of the Company's investment in FHLB common stock and short-term investments. Fair value for the FHLB capital stock approximates par value, which is determined by the FHLB and is considered unobservable. FHLB common stock is classified within Level 3 of the fair value hierarchy.

SEPARATE ACCOUNT ASSETS primarily consist of mutual funds. The fair value of mutual funds is based upon quoted prices in an active market, resulting in classification in Level 1.

VARIABLE ANNUITY LIVING BENEFIT RIDERS The Company's liability for future policy benefits includes general account liabilities for guarantees on variable annuity contracts, including GMAB and GMWB. These benefits are accounted for as embedded derivatives and are carried at fair value with changes in fair value included in net investment gains/(losses).

The fair values of the GMAB and GMWB liabilities are calculated as the present value of future expected payments to customers less the present value of assessed rider fees attributable to the embedded derivative feature. The expected cash flows are discounted using appropriate rates that take into consideration the Company's own risk of nonperformance. Since there is no observable active market for the transfer of these obligations, the valuations are calculated using internally developed models. Significant inputs to these models include capital market assumptions, such as interest rates and equity market assumptions, as well as various policyholder behavior assumptions that are actuarially determined, including lapse rates, benefit utilization rates, mortality rates and withdrawal rates. These assumptions are reviewed regularly, and updated based upon historical experience and give consideration to any observable market data, including market transactions such as acquisitions and reinsurance transactions. Since many of the assumptions utilized are unobservable and are considered to be significant inputs to the liability valuation, the liability included in future policy benefits has been reflected within Level 3 in the fair value hierarchy. During 2022, the assumptions that were reviewed and updated included full withdrawals, volatility, fund fees, and fund mapping. These assumption changes resulted in a \$34,600 increase to reserves.

FIXED INDEXED ANNUITY CONTRACTS The Company's liability for future policy benefits includes general account liabilities for interest credits indexed to the S&P 500 in excess of the guaranteed rates on indexed annuity contracts. These benefits are accounted for as embedded derivatives and are carried at fair value with changes in fair value included in net investment gains/(losses).

Fixed indexed annuity contracts allow the policyholder to elect a fixed interest rate return or an equity market component where their interest credited is based on the performance of common stock market indices. The equity market option is an embedded derivative, similar to a call option. The benefit reserve is equal to the sum of the fair value of the embedded derivative and the host (or guaranteed) component of the contracts. The fair value of the embedded derivative is computed as the present value of benefits attributable to the excess of the projected policy contract values over the projected minimum guaranteed contract values, discounted using appropriate rates that take into consideration the Company's own risk of nonperformance.

The projections of policy contract values are based on assumptions for future policy growth, which include assumptions for expected index credits on the next policy anniversary date, future equity option costs, volatility, interest rates, and policyholder behavior (including lapse rates, benefit utilization rates, mortality rates and withdrawal rates). The projections of minimum guaranteed contract values include the same assumptions for policyholder behavior as were used to project policy contract values. The host contract is established at contract inception as the initial account value less the initial fair value of the embedded derivative and accreted over the policy's life. The host contract accretion rate is updated each quarter so that the present value of actual and expected guaranteed cash flows is equal to the initial host value. Since many of the assumptions utilized are unobservable and are considered to be significant inputs to the liability valuation, the liability included in future policy benefits has been reflected within Level 3 in the fair value hierarchy. During 2022, there was no impact to the liability due to the annual assumption review.

INDEXED UNIVERSAL LIFE CONTRACTS The Company's liability for future policy benefits includes general account liabilities for interest credits indexed to the S&P 500 in excess of the guaranteed rates on indexed universal life contracts. These benefits are accounted for as embedded derivatives and are carried at fair value with changes in fair value included in operating earnings as part of Benefits paid to policyholders and beneficiaries.

Fixed indexed universal life contracts allow the policyholder to elect a fixed interest rate return or an equity market component where their interest credited is based on the performance of common stock market indices. The equity market option is an embedded derivative, similar to a call option. The benefit reserve is equal to the sum of the fair value of the embedded derivative and the host (or guaranteed) component of the contracts. The fair value of the embedded derivative is computed as the present value of benefits attributable to the excess of the projected policy contract values over the projected minimum guaranteed contract values, discounted using appropriate rates that take into consideration the Company's own risk of nonperformance.

The projections of policy contract values are based on assumptions for future policy growth, which include assumptions for expected index credits on the next policy anniversary date, future equity option costs, volatility, interest rates, and policyholder behavior (including lapse rates, benefit utilization rates, mortality rates and withdrawal rates). The projections of minimum guaranteed contract values include the same assumptions for policyholder behavior as were used to project policy contract values. The host contract is established at index bucket inception as the initial account value less the initial fair value of the embedded derivative and accreted over the policy's life. Since many of the assumptions utilized are unobservable and are considered to be significant inputs to the liability valuation, the liability included in future policy benefits has been reflected within Level 3 in the fair value hierarchy.

OTHER LIABILITIES Contingent payment arrangements included in Other liabilities relate to contingent payment liabilities associated with various acquisitions. Annually, the Company estimates the fair value of the contingent considerations expected to be paid using Monte Carlo simulations. Theses are unobservable market inputs and are reflected in Level 3.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table presents the financial instruments carried at fair value by caption on the Consolidated Balance Sheets and by valuation hierarchy (as described above):

December 31, 2022		FV Level 1	FV Level 2		FV Level 3	Total
Assets:						
AFS securities:						
U.S. Government	\$	746,251	\$ 255,997	\$		\$ 1,002,248
Other Governments			12,395			12,395
States, Territories and Possessions		2,298	97,877			100,175
Political Subdivisions		5,873	456,193			462,066
Special Revenue		25,850	1,520,407			1,546,257
Industrial and Miscellaneous		161,332	8,330,718			8,492,050
Residential MBS		3,466	1,236,672			1,240,138
Commercial MBS		67,805	2,572,290			2,640,095
Asset-backed securities		41,891	2,846,481		313,259	3,201,631
Hybrid		4,650	395,854			400,504
SVO Identified Funds		1,186	—			1,186
Bank Loans		—	3,077			3,077
Preferred stock		86,101	16,891		937	103,929
Total AFS securities		1,146,703	17,744,852		314,196	19,205,751
Trading securities		14,230	448,444		8,501	471,175
Equity securities		64,198	—		11	64,209
Derivatives:						
Futures		29	—		—	29
Options			264,695			264,695
Swaps		_	123,622			123,622
Forwards			—			
Total derivatives		29	388,317			388,346
Other invested assets	\$_		\$ —	\$	17,127	\$ 17,127
Total investments		1,225,160	18,581,613		339,835	20,146,608
Separate account assets (1)	_	8,168,559	—			8,168,559
Total Assets	\$	9,393,719	\$ 18,581,613	\$	339,835	\$ 28,315,167
iabilities:						
Derivatives:						
Futures \$		(5)	\$ 	\$	_	\$ (!
Options			(147,010)		_	(147,010
Swaps			(344,104)		_	(344,104
Forwards			(13,438)			(13,438
Total derivatives		(5)	(504,552)			(504,55)
Future policy benefits			()- ()) -)		(14,546)	(14,54)
Other liabilities			_		(2,755)	(2,75
Securities sold not yet purchased		 (3,539,694)	 (29,746)		(-,, - <u>)</u>	(3,569,440
otal Liabilities \$		(3,539,699) \$	(534,298)	Ł	(17,301)	\$ (4,091,298

(\$ in Thousands)

Assets:		
AFS securities:		
U.S. Government \$ 760,593 \$ 234,931 \$ —	\$	995,524
Other Governments — 15,328 —		15,328
States, Territories and Possessions — 86,141 —		86,141
Political Subdivisions — 488,439 —		488,439
Special Revenue — 1,806,523 —		1,806,523
Industrial and Miscellaneous — 9,974,214 —		9,974,214
Residential MBS — 1,124,481 —		1,124,481
Commercial MBS — 2,776,587 —		2,776,587
Asset-backed securities — 2,692,581 268,568		2,961,149
Hybrid — 471,961 —		471,961
SVO Identified Funds 6,649 — —		6,649
Bank Loans — 3,790 —		3,790
Preferred stock 121,170 17,404 6,687		145,261
Total AFS securities 888,412 19,692,380 275,255		20,856,047
Trading securities 19,417 506,722 7,398		533,537
Equity securities 98,493 — 11		98,504
Derivatives:		
Futures (144) — —		(144)
Options — 735,560 —		735,560
Swaps — 292,171 —		292,171
Forwards — 5,705 —		5,705
Total derivatives (144) 1,033,436 —		1,033,292
Other invested assets \$ — — 5,977		5,977
Total investments 1,006,178 21,232,538 288,641		22,527,357
Separate account assets ⁽¹⁾ 10,128,591 — —		10,128,591
Total Assets \$ 11,134,769 \$ 21,232,538 \$ 288,641	\$	32,655,948
Liabilities:		
Derivatives:		
Futures \$ (967) \$ — \$ -	- \$	(967)
Options — (460,793) -	_	(460,793)
Swaps — (677,434) –	_	(677,434)
Forwards — (6,529) -	_	(6,529)
Total derivatives (967) (1,144,756) -	_	(1,145,723)
Future policy benefits — — (154,79	7)	(154,797)
Other liabilities — — (4,02		(4,021)
Securities sold not yet purchased (2,054) (11,715) -		(13,769)
Total Liabilities \$ (3,021) \$ (1,156,471) \$ (158,81)	8) \$	(1,318,310)

(1) Separate account assets represent segregated funds that are invested for certain customers. Investment risk associated with market value changes are borne by the customers, except to the extent of minimum guarantees made by the Company with respect to certain accounts. Separate account liabilities are not included in the above table as they are reported at contract value and not fair value in the Company's Consolidated Balance Sheets.

CHANGES IN LEVEL 3 RECURRING FAIR VALUE MEASUREMENTS When a determination is made to classify a financial instrument within Level 3, the determination is based upon the significance of the unobservable parameters to the overall fair value measurement. However, Level 3 financial instruments typically include, in addition to the unobservable or Level 3 components, observable components (that is, components that are actively quoted and can be validated to external sources).

During 2022, there were no securities transferred from Level 1 to Level 3. During 2022, there was 1 security transferred from Level 3 to Level 2 due to a change in pricing methodology from internal estimates or broker quotes to being priced by independent services or internal estimates using observable inputs. During 2022, the Company purchased and disposed of \$83,949 and \$683, respectively of Level 3 investments.

During 2021, there was 1 security transferred from Level 1 to Level 3. During 2021, there were no securities transferred from Level 3 to Level 2 due to a change in pricing methodology from internal estimates or broker quotes to being priced by independent services or internal estimates using observable inputs. During 2021, the Company purchased and disposed of \$62,095 and \$29,267, respectively of Level 3 investments.

Note 6. GOODWILL AND INTANGIBLES

The following tables represent the activity related to the Company's goodwill and intangible assets that are included in Other assets for the years ended December 31:

		Additions/ Other			
	2021	Adjustments	Impairment	Amortization	2022
Intangible Assets – Definite-lived					
Cost	\$ 19,084 \$; —	\$ — \$	— \$	19,084
Accumulated Depreciation	(14,270)	—		(1,593)	(15,863)
Net	\$ 4,814 \$	· —	\$ — \$	(1,593) \$	3,221
Indefinite-lived intangible assets	3,549	_	_	_	3,549
Goodwill	87,527	—		—	87,527
Goodwill and intangible assets	\$ 95 , 890 \$;	\$	(1,593) \$	94,297

	2020	Additions/ Other Adjustments	Impairment	Amortization	2021
Intangible Assets – Definite-lived					
Cost	\$ 17,287 \$	1,797	\$	\$ — \$	19,084
Accumulated Depreciation	(12,454)			(1,816)	(14,270)
Net	\$ 4,833 \$	1,797	\$ —	\$ (1,816) \$	4,814
Indefinite-lived intangible assets	3,549		_	_	3,549
Goodwill	77,918	9,609			87,527
Goodwill and intangible assets	\$ 86,300 \$	11,406	\$ —	\$ (1,816) \$	95,890

In 2021, JMS entered into a purchase agreement to acquire all the outstanding membership interests of its' subsidiary investment. The acquisition resulted in additional goodwill of \$9,609.

Remaining amortization expense on intangible assets is expected to be recognized in the next 4 years as follows:

Years ending December 31,	Amortization Expense		
2023	\$	1,470	
2024		593	
2025		180	
2026		180	

Note 7. SEPARATE ACCOUNTS

Separate Accounts Registered with the SEC The Company maintains separate accounts, which are registered with the Securities Exchange Commission ("SEC"), for its individual variable life and annuity products with assets of \$7,977,336 and \$9,900,023 at December 31, 2022 and 2021, respectively. The assets for these separate accounts, which are carried at fair value, represent investments in shares of Penn Series Funds, Inc. and other non-proprietary funds.

Separate Accounts Not Registered with the SEC The Company also maintains separate accounts, which are not registered with the SEC, with assets of \$191,223 and \$228,568 at December 31, 2022 and 2021, respectively. While the product itself is not registered with the SEC, the underlying assets are comprised of SEC registered mutual funds. The assets in these separate accounts are carried at fair value.

Note 8. DAC AND SALES INDUCEMENTS

The following table illustrates the rollforward of the Company's DAC balance for the years ended:

December 31,	2022	2021
Balance at beginning of year	\$ 2,499,728 \$	1,987,322
Current year additions	403,672	390,303
Realized gains	4,954	15,392
Unrealized losses	1,513,120	169,296
Amortized during year, net of interest and unlocking	 (164,618)	(62,585)
Balance at end of year	\$ 4,256,856 \$	2,499,728

Most of the Company's DAC asset is amortized over the estimated life of the book of business at a constant rate based on the present value of the estimated gross profits or, depending on the product, gross revenues expected to be realized. The present value of estimated gross profits is computed using an expected investment yield or interest crediting rate, projected mortality and lapse rates. As actual experience varies, the DAC asset is required to be written up or down as the Company "unlocks" the DAC assumptions and resets the assumptions based on more current information. For projecting investment returns that would be applied to determine future variable account value growth and the associated profit margins, the Company uses a common industry approach that is generally referred to as Reversion to the Mean ("RTM"). The Company's annual assumption reviews resulted in changes to DAC of \$(1,700) and \$4,300 at December 31, 2022 and 2021, respectively.

Sales Inducements

The Company has deferred annuity policies in-force that contain sales inducements that are capitalized and then amortized into income in the future. Capitalized sales inducements are included in Other assets and are amortized using the same methodology and assumptions used to amortize DAC.

Changes in sales inducements are as follows:

December 31,	2022	2021
Beginning Balance	\$ 69,688 \$	67,297
Additional amounts deferred	6,639	6,684
Amortization	(10,198)	(4,293)
Ending balance	\$ 66,129 \$	69,688

Note 9. GUARANTEED MINIMUM ANNUITY BENEFITS

The Company has variable annuity contracts containing GMDB provisions that provide a specified minimum benefit payable upon death as follows:

RETURN OF PREMIUM provides the greater of the account value or total deposits made to the contract less any partial withdrawals and transfers, which is referred to as "net purchase payments". This guarantee is a standard death benefit on all individual variable annuity products.

STEP-UP provides a variable death benefit equal to the greater of the account value and the highest variable account value adjusted for withdrawals and transfers from any prior contract anniversary date.

RISING FLOOR provides a variable death benefit equal to the greater of the current account value and the variable purchase payments accumulated at a set rate and adjusted for withdrawals and transfers.

The following table summarizes the account values, net amount at risk (amount of death benefit in excess of account value), net of reinsurance, and reserves for variable annuity contracts with guarantees invested in the separate accounts as of December 31:

December 31,	2022			2021
Account Value	\$	6,982,463	\$	8,656,335
Net amount at risk		364,829		14,851
GAAP Reserves		8,816		4,359

The reserve calculation uses a process that includes a stochastic modeling component. 200 scenarios are modeled during the process and the result is the creation of excess benefits, which are cash payments due to death over and above the existing account value in the case of variable annuities, or partial withdrawal payments after account value is depleted in the case of fixed indexed annuities. A ratio of the present value of these excess benefits to the present value of excess revenues is calculated and applied to the excess revenues in that period to determine the new liability accrual. This accrual is rolled forward with interest and amortized as excess payments are made.

The Company regularly evaluates the estimates used to model the GMDB & GMWB reserve and adjusts the additional liability balance as appropriate, with a related charge or credit to net investment gains/(losses) in the period of evaluation if actual experience or other evidence suggests that earlier assumptions should be revised.

The Company has variable annuity contracts and that have GMAB and GMAB/GMWB Rider options. The Company has fixed indexed annuity contracts that have GMWB Rider options. The GMAB provides for a return of principal at the end of a ten-year period. The GMWB, with inflation protection, provides for a minimum amount of income at retirement. The GMAB/GMWB combination rider allows for guaranteed withdrawals from a benefit base after a selected waiting period. The benefit base is calculated as the maximum of principal times a roll up rate less any partial withdrawals during the accumulation phase, the current account value, and the highest anniversary value over a specified period. The withdrawal amount is stated as a percentage of the benefit base and varies based on whether the annuitant selects lifetime withdrawals or a specified period. One version of this Rider has an inflation adjustment applied to the Guaranteed Withdrawal Amount.

The following table summarizes the account values and reserves for the different benefit types as of December 31, 2022:

Rider Type	Number of Contracts	Fixed Account Value	Variable Account Value	A	Total Fund ccount Value	Reserves
GMAB	1,845	\$ 5,176	\$ 276,330	\$	281,506	\$ (5,777)
GMWB w/inflation	10,987	19,746	2,211,279		2,231,025	66,527
GMAB/WB	15,720	54,941	3,322,589		3,377,530	(52,430)
Total	28,552	\$ 79,863	\$ 5,810,198	\$	5,890,061	\$ 8,320

The following table summarizes the account values and reserves for the different benefit types as of December 31, 2021:

Rider Type	Number of Contracts	Fixed Account Value	Variable Account Value	Total Fund Account Value	Reserves
GMAB	1,680 \$	\$ 2,160 \$	306,913	\$ 309,073	\$ (2,472)
GMWB w/inflation	11,231	15,843	2,767,389	2,783,232	23,807
GMAB/WB	15,891	52,853	4,101,187	4,154,040	(77,948)
Total	28,802	\$ 70,856 \$	7,175,489	\$ 7,246,345	\$ (56,613)

The following table summarizes the GMAB, GMWB w/ inflation, and GMAB/WB liabilities, which are recorded in Reserves for future policy benefits on the Consolidated Balance Sheets, and changes in these liabilities, as of and for the years ended December 31:

2022	GMAB	GMWB w/ inflat	ion (GMAB/WB	Total
Reserves for future policy benefits, beginning of year	\$ (2,471)	\$ 23,	807 \$	(77,949) \$	(56,613)
Benefits paid to policyholders and beneficiaries	—		(18)	(79)	(97)
Increase/(decrease) in reserves for future policy benefits	(3,306)	42,	738	25,598	65,030
Reserves for future policy benefits, end of year	\$ (5,777)	\$ 66,	527 \$	(52,430) \$	8,320
2021	GMAB	GMWB w/ inflat	ion (GMAB/WB	Total
Reserves for future policy benefits, beginning of year	\$ 2,648	\$ 19,	497 \$	(71,750) \$	(49,605)
Benefits paid to policyholders and beneficiaries	_		(24)	(49)	(73)
1 1 2			(-1)	(1)	(1)
Increase/(decrease) in reserves for future policy benefits	(5,120)		334	(6,149)	(6,935)

The guaranteed living benefits are considered to be derivatives. Changes in these values are recorded in net investment gains/(losses).

Note 10. INCOME TAXES

The federal income tax expense/(benefit) is as follows:

YEARS ENDED DECEMBER 31,	2022	2021
Current	\$ (21,359) \$	(9,405)
Deferred	54,647	131,274
Total federal income tax expense	\$ 33,288 \$	121,869

The income taxes attributable to consolidated net income are different from the amounts determined by multiplying consolidated net income before income taxes by the expected statutory federal income tax rate. The difference between the amount of tax at the U.S. federal income tax rate of 21% and the consolidated tax provision is summarized as follows:

YEARS ENDED DECEMBER 31,	2022	2021			
Tax expense at 21%	\$ 44,489	\$	135,484		
(Decrease)/increase in income taxes resulting from:					
Separate account dividends received deduction	(5,183)		(4,180)		
Dividends received deduction	(886)		(1,186)		
Tax exempt income	(370)		(233)		
LIHTC	(5,379)		(10,376)		
Corporate owned life insurance	8,914		(6,637)		
Other	(8,297)		8,997		
Income tax expense	\$ 33,288	\$	121,869		
Effective tax rate	15.74 %		18.89 %		

The effective tax rate is the ratio of income tax expense over income before income taxes.

The significant temporary differences that give rise to the deferred tax assets and liabilities at December 31 relate to the following:

	2022	2021
Deferred tax assets:		
Unrealized Losses	\$ 511 , 963 \$	_
Employee Benefits	71,427	67,525
LIHTC	86,261	86,643
Loss Carryforward	_	5,985
Valuation Allowance	(369,063)	(6,304)
Total deferred tax asset	300,588	153,849
Deferred tax liabilities:		
Future Policy Benefits	(100,154)	(54,555)
DAC	(469,155)	(440,937)
Net Unrealized Gains	(91,635)	(247,316)
Investments	(130,642)	(158,026)
Other	(117,299)	(116,526)
Total deferred tax liability	 (908,885)	(1,017,360)
Net deferred tax liability	\$ (608,297) \$	(863,511)

As of December 31, 2022, we recorded a net current federal income tax receivable of \$51,023, including cash payments made in 2022 of \$114,156, which primarily relate to refunds due from the IRS.

The Company utilized \$10,697 of the total LIHTC available of as of December 31, 2022 that will begin to expire in 2035. In addition, the Company included LIHTC return to provision adjustments of (\$4,936) related to the filing of the 2021 tax return.

The Company recorded a valuation allowance of \$369,063 as of December 31, 2022, as management determined that it was more likely than not that capital deferred tax assets would not be realized. The Company recorded \$369,063 and \$0 of the valuation allowance through Other Comprehensive Income as of December 31, 2022 and 2021. As part of its valuation allowance assessment, management considered the four sources of future taxable income.

The Company considered future reversals of taxable temporary differences in realizing deferred tax assets, however, the Company has not identified any tax planning strategies to support realization of its DTAs at December 31, 2022. Furthermore, the Company does not anticipate future taxable income exclusive of reversing temporary differences and carryforwards.

The Company did not have any tax reserves for uncertain tax positions as of December 31, 2022 and 2021. The Company recognizes interest and penalties, if any, related to unrecognized tax benefits, as a component of tax expense. During the years ended December 31, 2022 and 2021, the Company did not recognize or accrue penalties or interest.

Tax years 2019 and subsequent are still subject to audit by the Internal Revenue Service.

Note 11. REINSURANCE

The Company has assumed and ceded reinsurance on certain life and annuity contracts under various agreements. The table below highlights the reinsurance amounts shown in the accompanying financial statements.

	Direct	A	ssumed	Ceded			Net Amount
December 31, 2022:							
Premiums Benefits Reserves	\$ 1,948,025 1,365,555 23,650,597	\$	878 2,651 2,903	\$	52,154 182,243 846,389	Ş	1,896,749 1,185,963 22,807,111
December 31, 2021:							
Premiums	\$ 1,580,633	\$	616	\$	52,256	\$	1,528,993
Benefits	1,409,122		5,853		258,001		1,156,974
Reserves	20,680,196		2,905		882,356		19,800,745

Reinsurance recoverables with a carrying value of \$503,934 were associated with a single reinsurer at December 31, 2022. The recoverables are secured by investment grade securities with a market value of \$493,887 held in trust.

Reinsurance recoverables with a carrying value of \$167,333 and \$175,206 were associated with a single reinsurer at December 31, 2022 and 2021, respectively. The recoverables are secured by investment grade securities with a market value of \$238,951 and \$279,931, respectively, held in trust.

The Company entered into a YRT agreement effective April 1, 2017, to reinsure an existing block of Universal Life business. The Company recorded an Other liabilities in the amounts of \$7,894 and \$9,398 at December 31, 2022 and 2021, with an offset to ceded deferred premium. After the initial twelve months, the deferred premium is amortized against gross profits of the reinsured block of business for a period limited to 15 years. The Company recognized amortization of unearned revenue of \$7,143 and \$5,639 through December 31, 2022 and 2021, respectively.

The Company entered into a coinsurance agreement effective January 1, 2013, to coinsure an existing block of guaranteed term products issued from 2007 through 2012. The Company established a Cost of Reinsurance asset of \$35,432 that will be amortized into income over a constant percentage of premium income, in the same manner as the original DAC. The Company recognized amortization expense of \$0 and \$0 through December 31, 2022 and 2021, respectively. The balance of the Cost of Reinsurance asset recorded in Other assets as of December 31, 2022 and 2021 was \$23,438 and \$27,110, respectively.

Note 12. DEBT

	2022	2021		
Surplus notes	\$ 891,129	\$ 890,826		
Bank loans – collateralized	7,500	1,000		
Bank loans – uncollateralized	26,186	23,900		
Total debt	\$ 924,815	\$ 915,726		

On April 29, 2021, the Company issued a Surplus Note ("2021 Note") at par with a principal balance of \$500,000. The 2021 Note bears interest at 3.80%, and has a maturity date of April 29, 2061. The 2021 Note was issued pursuant to Rule 144A under the Securities Act of 1933, as amended and is administered by a U.S. bank as registrar/paying agent. Interest on the 2021 Note is scheduled to be paid semiannually on June 15 and December 15 of each year. Interest paid on the 2021 Note was \$19,000 and \$12,719 for the years ended December 31, 2022 and 2021, respectively.

On July 1, 2010, the Company issued a Surplus Note ("2010 Note") with a principal balance of \$200,000, at a discount of \$8,440. The 2010 Note bears interest at 7.625%, and has a maturity date of June 15, 2040. The 2010 Note was issued pursuant to Rule 144A under the Securities Act of 1933, as amended and are administered by a U.S. bank as registrar/ paying agent. Interest on the 7.625% 2010 Notes is scheduled to be paid semiannually on March 31 and September 30 of each year. At December 31, 2022 and 2021, the amortized cost basis of the 2010 Note was \$193,119 and \$192,930, respectively. Interest expense incurred on the 2010 Notes was \$15,250 and \$15,250 for the years ended December 31, 2022 and 2021, respectively.

On June 23, 2004, the Company issued a Surplus Note ("2004 Note") with a principal balance of \$200,000, at a discount of \$3,260. The 2004 Note bears interest at 6.65%, and has a maturity date of June 15, 2034. The 2004 Note was issued pursuant to Rule 144A under the Securities Act of 1933, as amended and are administered by a U.S. bank as registrar/ paying agent. Interest on the 6.65% 2004 Note is scheduled to be paid semiannually on April 1 and October 1 of each year. At December 31, 2022 and 2021, the amortized cost basis of the 2004 Note was \$198,011 and \$197,896, respectively. Interest expense incurred on the 2004 Note was \$13,300 and \$13,300 for the years ended December 31, 2022 and 2021, respectively.

The Company's broker/dealer affiliate borrows from banks in connection with the securities settlement process and to finance margin loans made to customers. The Company is required to fully collateralize these loans. At December 31, 2022 and 2021, these banks extended short-term bank loans in the amount of \$7,500 and \$1,000, respectively, which were collateralized by customer-owned securities valued at approximately \$390 and \$443, respectively, and Company owned securities valued at \$8,006 and \$34,131. Certain collateral amounts exceed the minimum requirements to allow for daily fluctuations. The bank loans are demand obligations and generally require interest based upon the federal funds rate. At December 31, 2022 and 2021, the weighted-average interest rate on these borrowings was approximately 0.45% and 0.45% respectively. All of the remaining bank loans, which consist of overdrafts of depository accounts of \$26,186 and \$23,900 as of December 31, 2022 and 2021, respectively, are not collateralized.

At December 31, 2022 and 2021, the Company's broker/dealer affiliate has interest paid on debt of 10,892 and 1,661, respectively.

At December 31, 2022 and 2021, the Company had securities borrowed of \$1,841,015 and \$1,862,036, respectively, which were collateralized by securities of \$2,358,740 and \$1,809,050, respectively.

The Company had utilized \$174,635 and \$274,902 as of December 31, 2022 and 2021, respectively, of securities owned by customers as collateral for Option Clearing Corporation ("OCC") margin requirements.

The Company has not entered into repurchase agreements with financial institutions.

The Company has a line of credit of \$500 with the FHLB. As of December 31, 2022 and 2021, there were no outstanding balances on the line of credit.

Note 13. BENEFIT PLANS

PML and its subsidiaries maintain various postretirement employee benefit plans.

Penn Mutual Pension Plans:	Penn Mutual Pension Plans include a funded qualified and unfunded nonqualified non- contributory defined benefit pension plans ("Penn Mutual Pension Plans"); other postretirement healthcare plan, nonqualified deferred compensation plans, and defined contribution plans.
Vantis Pension Plan:	Vantis Pension Plan includes an unfunded non-contributory defined benefit pension plan ("SERP").
JMS:	Defined contribution plan.

PENSION PLANS Penn Mutual Pension Plans have both funded and unfunded non-contributory defined benefit pension plans covering all eligible employees. PML's policy is to fund qualified pension costs in accordance with the Employee Retirement Income Security Act of 1974. PML may increase its contribution above the minimum based upon an evaluation of the Company's tax and cash positions and the plan's funded status. The PML qualified and nonqualified pension plans are frozen. Therefore, no further benefits are accrued for participants.

OTHER POSTRETIREMENT HEALTHCARE BENEFITS PML provides certain life insurance and health care benefits ("other postretirement healthcare benefits") for its retired employees and financial professionals, and their beneficiaries and covered dependents.

OTHER PLANS PML and Vantis have non-qualified deferred compensation plans that permit eligible key employees, financial professionals and trustees to defer portions of their compensation to these plans. Certain company contributions in excess of allowable qualified plan limits may also be credited to these plans. Company contributions are recorded as expenses and earnings/(losses) on investments are recorded to interest credited to policyholder funds in the Statements of Operations.

BENEFIT OBLIGATIONS Accumulated benefit obligations represent the present value of pension benefits earned as of the measurement date based on service and compensation and do not take into consideration future salary.

Projected benefit obligations for defined benefit plans represent the present value of pension benefits earned as of the measurement date projected for estimated salary increases to an assumed date with respect to retirement, termination, disability or death.

The following table sets forth the plans' change in projected benefit obligation of the defined benefit pension and other postretirement healthcare plans as of December 31:

	Penn Mutual Pension Plans Vantis Pension P		Plans	Other Postre Healthcar		 			
		2022	2021	2022		2021		2022	2021
Change in projected benefit obligation									
Projected benefit obligation at beginning of year	\$	195,103	\$ 208,428	\$ 4,998	\$	5,012	\$	16,913	\$ 17,767
Service cost		—		—		108		231	343
Interest cost		4,440	3,675	80		78		320	294
Actuarial (gain)/loss		(40,804)	(6,034)	(851)		(200)		(5,156)	(437)
Benefits paid		(11,361)	(10,966)	—				(1,296)	(1,054)
Liabilities assumed									
Settlements			 	 (1,247)					
Projected benefit obligation at end of year	\$	147,378	\$ 195,103	\$ 2,980	\$	4,998	\$	11,012	\$ 16,913

The discount rate was 5.49% at December 31, 2022 and 2.86% at December 31, 2021, resulting in an actuarial gain on the benefit obligation for Penn Mutual Pension Plans in 2022.

The discount rate was 5.53% at December 31, 2022 and 2.87% at December 31, 2021, resulting in an actuarial gain on the benefit obligation for Other Postretirement Healthcare Plans in 2022.

The weighted-average assumptions used to measure the actuarial present value of the projected benefit obligation were as follows as of December 31:

	Penn M Pensior		Vantis Pension Plans		Postret	her irement are Plans
	2022	2021	2022	2021	2022	2021
Qualified						
Discount rate	5.49 %	2.86 %	N/A	N/A	N/A	N/A
Rate of compensation increase	N/A	N/A	N/A	N/A	N/A	N/A
Nonqualified						
Discount rate ⁽¹⁾	N/A	N/A	5.42 %	2.40 %	5.53 %	2.87 %
Rate of compensation increase	N/A	N/A	4.00 %	4.00 %	N/A	N/A

(1) 2022 discount rates are 5.43%, 5.42%, and 5.24% for the various Penn Mutual Nonqualified Pension Plans.

The discount rate is determined at the annual measurement date of the plans and is therefore subject to change each year. The rate reflects prevailing market rates for high quality fixed-income debt instruments with maturities corresponding to expected duration of the benefit obligations on the measurement date. The rate is used to discount the future cash flow of benefits obligations back to the measurement date.

The assumed health care cost trend rates used in determining the benefit obligation were as follows as of December 31:

	20	22	202	21
	Pre-65	Post-65	Pre-65	Post-65
Health care cost trend rate assumed for next year	6.75 %	6.75 %	6.25 %	6.25 %
Rate to which the cost trend rate is assumed to				
decline (the ultimate trend rate)	5.00 %	5.00 %	5.00 %	5.00 %
Year that the rate reaches the ultimate trend rate	2030	2030	2027	2027

PLAN ASSETS The change in plan assets represents a reconciliation of beginning and ending balances of the fair value of the plan assets used to fund future benefit payments. The following table sets forth the change in plan assets as of December 31:

		Nutual Pension Plans			Vantis Pla	Pens ans	ion	Other Postretiremen Healthcare Plans			
	2022		2021	2	022	2	.021	2	022		2021
Change in plan assets:											
Fair value of plans assets at beginning of year	\$ 230,758	\$	224,075	\$	_	\$	_	\$	_	\$	_
Actual return on plan assets	(27,652)		15,271		—		—		—		
Employer contribution	2,288		2,378		—		—		1,296		1,054
Benefits paid	(11,361)		(10,966)		_		—	(1	,296)		(1,054)
Settlement							—				
Fair value of plan assets at end of year	\$ 194,033	\$	230,758	\$		\$		\$		\$	

The plan assets of the PML qualified pension plan consist primarily of mutual funds. With a few exceptions, the fair value of these funds is based upon quoted prices in active markets, resulting in a Level 1 classification. The PML qualified pension plan invests in a global unconstrained bond fund. The net asset value of this bond fund is calculated by the investment manager of the fund and provided to PML. PML uses this net asset value as a practical expedient to recognize the fair value of this fund. As a result, this bond fund is classified within Level 2 of the fair value hierarchy. The pension plan also invests in index funds. The estimates of fair value for these plan assets are included in Level 2 of the fair value hierarchy. In this category, pricing inputs are other than quoted prices in active markets which are either directly or indirectly observable as of the balance sheet date, and fair value is determined through the use of models and other valuation methods.

The fair values of the Company's pension plan assets as of December 31, 2022 are as follows:

	Penn Mutual Pension Plans								
Asset Category	FV Level 1	Total							
Equity funds	\$ 58,429) \$		\$		\$ 58,429			
Bond funds	122,31	2	6,059		—	128,371			
Money market funds	7,23	3	—			7,233			
Total	\$ 187,974	1 \$	6,059	\$		\$ 194,033			

The fair values of the Company's pension plan assets as of December 31, 2021 are as follows:

	Penn Mutual Pension Plans									
Asset Category	FV Level 1	Total								
Equity funds	\$ 68,073	\$ —	\$ —	\$ 68,073						
Bond funds	148,292	6,496	—	154,788						
Money market funds	7,897	—	—	7,897						
Total	\$ 224,262	\$ 6,496	\$ —	\$ 230,758						

The PML qualified pension plan's overall investment strategy with respect to pension assets are growth, preservation of principal, preservation of purchasing power and partial immunization through asset/liability matching while maintaining return objective over the long term. To achieve these objectives, the Company has established a strategic asset allocation policy. Plan assets are diversified both by asset class and within each asset class in order to provide reasonable assurance that no single security or class of security will have a disproportionate impact on the plan. The Company will continue its policy to rebalance the portfolio on an annual basis. Performance of investment managers, liability measurement and investment objectives are reviewed on a regular basis.

The Company's pension plan asset allocation at December 31, 2022 and 2021, and target allocations are as follows:

_	Penn Mutual Pension Plans								
Asset Category	2022 Target Allocation	Percentage of As of Dece							
		2022	2021						
Equity funds	40.0 %	30.1 %	29.5 %						
Bond funds	60.0 %	66.2 %	67.1 %						
Money market funds	— %	3.7 %	3.4 %						
Total	100.0 %	100.0 %	100.0 %						

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AMOUNTS RECOGNIZED IN THE CONSOLIDATED BALANCE SHEET The funded status of the Company's pension plans is a comparison of the projected benefit obligations to the assets related to the respective plan, if any. The difference between the two represents amounts that have been appropriately recognized as expenses in prior periods that appear as the net amount recognized or represents amounts that will be recognized as expenses in the future through the amortization of the unrecognized net actuarial loss, unrecognized prior service costs, and remaining initial transition.

The following table sets forth the funded status of the plans as of December 31, 2022 and 2021 as of the measurement date, and then shows how the funded status is reconciled to the net asset and/or liability recognized in the Consolidated Balance Sheets.

	Penn Mutual Pension Plans				١	/antis Pens	ioı	n Plans	Other Postretirement Healthcare Plans				
		2022		2021		2022		2021		2022	2021		
Benefit obligation	\$	(147,378)	\$	(195,103)	\$	(2,980)	\$	(4,998)	\$	(11,012) \$	(16,913)		
Fair value of plan assets		194,033		230,758		_		—		—	—		
Funded status	\$	46,655	\$	35,655	\$	(2,980)	\$	(4,998)	\$	(11,012) \$	(16,913)		

The funded status reconciles to amounts reported in the Consolidated Balance Sheets as follows for the years ended December 31:

	F	Penn Mutual Pension Plans			١	/antis Pensio	on Plans	Other Postretireme Healthcare Plans			
		2022		2021		2022	2021		2022	2021	
Prepaid pension asset (Other assets)	\$	63,948	\$	57,799	\$	— \$		\$	(11,012) \$	(16,913)	
Accrued benefit liability (Other liabilities)		(17,293)		(22,144)		(2,980)	(4,998)		_	_	
Funded status	\$	46,655	\$	35,655	\$	(2,980) \$	(4,998)	\$	(11,012) \$	(16,913)	

The breakout of the fair value of plan assets, projected benefit obligation and accumulated benefit obligation for plans in an overfunded status, where the fair value of plan assets exceeded the projected benefit obligation, and plans in an underfunded status, where the projected benefit obligation exceeded the fair value of plan assets were as follows as of:

	(Overfunded I	Pensi	ion Plans	Underfunded Pension Plans					
December 31,		2022		2021		2022	2021			
Projected benefit obligation	\$	(130,085)	\$	(172,959)	\$	(17,295)	\$	(22,144)		
Fair value of plan assets		194,033		230,758						
Funded status		63,948		57,799		(17,295)		(22,144)		
Accumulated benefit obligation	n \$	(130,085)	\$	(172,959)	\$	(17,295)	\$	(22,144)		

The amounts in accumulated other comprehensive income/(loss) that have not yet been recognized as part of net periodic benefit cost/(credit) were as follows as of:

	P	enn Muti Pla	ual F ans	Pension	Vantis Pension Plans					Other Postretirement Healthcare Plans			
December 31,		2022		2021		2022		2021		2022		2021	
Unrecognized prior service credit	\$	103	\$	123	\$		\$		\$		\$		
Unrecognized actuarial loss (gain)		47,059		45,741		(376)		660		(8,038)		(3,214)	
Total	\$	47,162	\$	45,864	\$	(376)	\$	660	\$	(8,038)	\$	(3,214)	

NET PERIODIC BENEFIT COST/(CREDIT) AND OTHER COMPREHENSIVE INCOME/(LOSS) The components of net periodic benefit cost/(credit) were as follows for the years ended:

	Penn M Pensio		V	antis Po Plar		Other Postretirement Benefits			
December 31,	2022	2021	20	22	2021		2022	2	2021
Service cost	\$ —	\$ —	\$	_	\$ 108	\$	231	\$	343
Interest cost	4,440	3,675		80	154		320		294
Expected return on plan assets	(15,827)	(15,374)		_	—				—
Amortization of prior service credit	20	20		_	—				—
Amount of recognized gains	1,357	1,771		16	(76)		(332)		(75)
Settlement (loss)/gain		_		169	_		_		—
Total net periodic benefit cost/(credit)	\$ (10,010)	\$ (9,908)	\$	265	\$ 186	\$	219	\$	562

Amounts recognized in other comprehensive income/(loss) were as follows for the years ended:

	Pension Mutual Vantis Pension Pension Plans Plans							Other Postretirement Benefits			
December 31,		2022		2021		2022	2021		2022		2021
Current year actuarial loss/(gain)	\$	2,675	\$	(5,932)	\$	(851) \$	(200)	\$	(5,156)	\$	(436)
Amortization of actuarial loss		(1,357)		(1,771)		16	(76)		332		75
Amortization of prior service credit		(20)		(20)			—		—		—
Settlement loss/(gain)				_		(169)					
Total loss/(gain) recognized in other comprehensive income/(loss)	\$	1,298	\$	(7,723)	\$	(1,004) \$	(276)	\$	(4,824)	\$	(361)

The weighted-average assumptions used to determine net periodic benefit cost/(credit) were as follows for the years ended December 31:

	Pension I Pension		Vantis Pe	ension	Othe Postretir Benet	ement
	2022	2021	2022	2021	2022	2021
Discount rate ⁽¹⁾	2.86 %	2.49 %	2.43 %	2.91%	2.50 %	2.50 %
Expected return on plan assets	7.00 %	7.00 %	N/A	N/A	N/A	N/A
Rate of compensation increase	N/A	N/A	4.00 %	4.00 %	N/A	N/A

(1) 2022 Discount rates for Penn Mutual nonqualified pension plans were 2.62%, 2.55%, and 1.72%.

The assumed health care cost trend rates used in determining net periodic costs were as follow for the years ended December 31:

	202	2	202	:1
	Pre- 65	Post- 65	Pre- 65	Post- 65
Health care cost trend rate assumed for current year	6.75 %	6.75 %	6.25 %	6.50 %
Rate to which the cost trend rate is assumed to				
decline (the ultimate trend rate)	5.00 %	5.00 %	5.00 %	5.00 %
Year that the rate reaches the ultimate trend rate	2030	2027	2027	2027

ACTUAL CONTRIBUTIONS AND BENEFITS The contributions made and the benefits paid from the plans at December 31 were:

	Penn Mutu Pla	 Pension	Vantis Pe	ensio	on Plans	C	Other Post Ben	
	2022	2021	2022		2021		2022	2021
Employer contributions	\$ 2,288	\$ 2,378	\$ 	\$	—	\$	1,296	\$ 1,054
Benefits paid	(11,361)	(10,966)			—		(1,296)	(1,054)
Settlements	_		—				_	

In 2023, PML expects to make the minimum required contribution to the PML qualified pension plan, currently estimated to be \$0. PML expects to contribute to the PML nonqualified pensions and other postretirement healthcare plans in amounts equal to the expected benefit costs of approximately \$2,136 and \$1,069, respectively.

The estimated future benefit payments are based on the same assumptions used to measure the benefit obligations at December 31, 2022 and 2021. The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

	 nn Mutual Ision Plans	Vantis Ision Plan	Re	ther Post etirement thcare Plans
2023	\$ 11,994	\$ —	\$	1,069
2024	11,809	—		1,057
2025	11,775	2,372		1,026
2026	11,802	_		1,003
2027	11,842	—		994
Years 2028-2032	56,853			4,296
Total	\$ 116,075	\$ 2,372	\$	9,445

DEFINED CONTRIBUTION PLANS PML maintains four defined contribution retirement plans for substantially all of its employees and full-time financial professionals. For two plans, designated contributions of up to 6% of annual compensation are eligible to be matched by the Company. Contributions for the third plan are based on tiered earnings of full-time financial professionals.

Janney sponsors a defined contribution plan which covers eligible employees and is determined on a discretionary basis by the Board of Managers.

For the years ended December 31, 2022 and 2021, the expense recognized for contributions to these plans was \$14,367 and \$14,708.

Note 14. ACCUMULATED OTHER COMPREHENSIVE INCOME

The following summarizes the components and changes in accumulated other comprehensive income for the years ended December 31, 2022 and 2021. For reclassification adjustments, the title of each line indicates the associated line item on the Consolidated Statements of Comprehensive Income:

Years Ended December 31,	2022	2021
Unrealized Gains/(Losses) on Investments		
Reported balance, January 1,	\$ 963,596 \$	1,274,614
Gains/(losses) arising during the period:		
Available for sale securities, net of taxes of \$(832,637) and \$(96,795)	(3,132,300)	(364,136
Derivatives, net of taxes of \$(3,478) and \$4,495	(13,083)	16,909
Other securities, net of taxes of \$(3) and \$(580)	(12)	(2,180
Change in reserves, DAC and unearned revenue, net of taxes of \$146,793 and \$9,980	552,220	37,542
Subtotal	(2,593,175)	(311,865)
Reclassification adjustments:		
Available for sale securities(1), net of taxes of \$7,191 and \$4,455	27,053	16,759
Derivatives, reclassified to net investment gains/(losses), net of taxes of \$1,631 and \$(4,095)	6,135	(15,405
Change in DAC and unearned revenue(1), net of taxes of \$3,696 and \$(135)	13,904	(507
Subtotal	47,092	847
Total other comprehensive loss, unrealized losses on investments	(2,546,083)	(311,018
Valuation Allowance	(369,063)	0
Balance, December 31,	(1,951,550)	963,596
Funded Status of Postretirement Plans		
Reported balance, January 1	(34,268)	(40,874
Gains/(losses) arising during the period:		
Actuarial gains/(losses), net of taxes of \$582 and \$1,380	2,190	5,190
Reclassification adjustments ⁽²⁾ :		
Amortization of actuarial gains, net of taxes of \$372 and \$4	1,399	16
Amortization of prior service cost, net of taxes of \$4 and \$372	16	1,400
Subtotal	1,415	1,416
Total other comprehensive (loss)/ income, funded status of postretirement plans	 3,605	6,606
Balance, December 31	(30,663)	(34,268
Total Accumulated Other Comprehensive Income, December 31	\$ (1,982,213) \$	929,328
(1) Reclassified to net investment gains/(losses)		

(1) Reclassified to net investment gains/(losses)

(2) Reclassified to general expenses

Note 15. COMMITMENTS, CONTINGENCIES AND UNCERTAINTIES

The Company has obligations as a lessee for office space with initial noncancelable terms in excess of one year. The Company classified these leases as operating leases. These leases generally contain renewal options for periods ranging from two to five years. Because the Company is not reasonably certain to exercise these renewal options, the optional renewal options are excluded from lease payments. The Company's leases do not include termination options for either party to the lease or restrictive financial or other covenants. Payments due under the lease contracts include fixed payments plus, for many of the Company's leases, variable payments. The Company's office space leases require it to make variable payments for the Company's proportionate share of the building's property taxes, insurance, and common area maintenance. These variable lease payments are not included in lease payments used to determine lease liability and are recognized as variable costs when incurred.

Maturities of lease liabilities under non-cancelable operating leases as of December 31, 2022 are as follows:

For the year ending:	Operating Leases	
2023	\$	30,046
2024		27,713
2025		25,019
2026		20,877
2027		16,529
Thereafter		24,544
Total Lease payments		144,728
Less: Imputed interest		(15,140)
Total lease liabilities	\$	129,588

Lease term and discount rate for operating leases as of December 31, 2022 are as follows:

Weighted average remaining lease term 6 years

Weighted average discount rate 2.15%

Other supplemental cash flow information related to operating leases as of December 31, 2022 are as follows:

Cash paid for amounts included in the measurement of lease liabilities: \$32,354

ROU asset obtained in exchange for lease obligations: \$40,470

INVESTMENTS In the normal course of business, the Company extends commitments relating to its investment activities. As of December 31, 2022, the Company had outstanding commitments totaling \$537,479, relating to these investment activities. The fair value of these commitments approximates the face amount.

REINSURANCE The Company has an adjustable 20 year, non-interest bearing financial instrument ("LLC") with a current face amount of \$783,489 to support a modified coinsurance arrangement with a reinsurer. The LLC is not carried as an asset on the Company's consolidated balance sheet. Upon certain triggering events, the LLC may be called upon to pay policyholder benefits under a reinsurance agreement. Interest is payable when amounts are drawn upon at the then prevailing prime rate. The Company pays a fee on the amount financed. For the years ended December 31, 2022 and 2021, total fees incurred were \$6,483 and \$6,181, respectively.

LITIGATION The Company and its subsidiaries are involved in litigation arising in and out of the normal course of business, which seek both compensatory and punitive damages. In addition, the regulators within the insurance and brokerage industries continue to focus on market conduct and compliance issues. While the Company is not aware of any actions or allegations that should reasonably give rise to a material adverse impact to the Company's financial position or liquidity, the outcome of litigation cannot be foreseen with certainty.

For some matters, the Company is able to estimate a possible range of loss. For such matters in which a loss is probable, an accrual has been made. For matters where the Company, however, believes a loss is reasonably possible, but not probable, no accrual is required. For matters for which an accrual has been made, but there remains a reasonably possible range of loss in excess of the amounts accrued or for matters where no accrual is required, the Company develops an estimate of the unaccrued amounts of the reasonably possible range of losses.

GUARANTY FUNDS The Company is subject to insurance guaranty fund laws in the states in which it does business. These laws assess insurance companies' amounts to be used to pay benefits to policyholders and policy claimants of insolvent insurance companies. Many states allow these assessments to be credited against future premium taxes. The liability for estimated guaranty fund assessments net of applicable premium tax credits as of December 31, 2022 and 2021 was \$235. The Company believes such assessments in excess of amounts accrued will not materially impact its financial statement position, results of operation, or liquidity.

Note 16. STATUTORY FINANCIAL INFORMATION

STATUTORY ACCOUNTING PRINCIPLES As described in Note 1, the insurance companies are required to file financial statements with their state of domicile in accordance with statutory accounting practices prescribed or permitted and as codified by the NAIC, which is a comprehensive basis of accounting other than GAAP. The Statutory accounting practices primarily differ from GAAP by charging policy acquisition costs to expense as incurred, recognizing certain policy fees as revenue when billed, establishing future policy benefit liabilities using different actuarial assumptions, reporting surplus notes as surplus instead of debt, as well as valuing investments and certain assets and accounting for deferred income taxes on a different basis.

Investments in bonds and preferred stocks are generally carried at amortized cost or market value. An Asset Valuation Reserve ("AVR") is established as a liability to offset potential investment losses and an Interest Maintenance Reserve ("IMR") is established as a liability to capture capital gains/(losses) on the sale of fixed income investments, resulting from changes in the general level of interest rates.

STATUTORY NET INCOME AND SURPLUS The combined life insurance companies' statutory capital and surplus at December 31, 2022 and 2021 was \$2,649,813 and \$2,571,599, respectively. The combined life insurance companies' net gain/ (loss), determined in accordance with statutory accounting practices, for the years ended December 31, 2022 and 2021 was \$132,860 and \$(194,956), respectively.

RISK-BASED CAPITAL Risk-based capital is a method developed by the NAIC to measure the minimum amount of capital appropriate for an insurance company to support its overall business operations in consideration of its size and risk profile. The formulas for determining the amount of risk-based capital specify various weighting factors that are applied to financial balances or various levels of activity based on the perceived degree of risk. Additionally, certain risks are required to be measured using actuarial cash flow modeling techniques, subject to formulaic minimums. The adequacy of the insurance companies' actual capital is measured by the risk-based capital results, as determined by the formulas. Companies below minimum risk-based capital requirements are classified within certain levels, each of which requires specified corrective action. At December 31, 2022, the Company's surplus exceeds these minimum levels.

Note 17. SUBSEQUENT EVENTS

The Company has evaluated events subsequent to December 31, 2022 and through the financial statement issuance date of February 17, 2023 and has determined that there were no significant events requiring recognition in the financial statements and no additional events requiring disclosure in the financial statements.

THE PENN MUTUAL LIFE INSURANCE COMPANY

About The Penn Mutual Life Insurance Company

For more than 175 years, Penn Mutual has been helping people get stronger. Our expertly crafted life insurance is vital to long-term financial health and strengthens people's ability to enjoy every day. Working with our trusted network of financial professionals, we take the long view, building customized solutions for individuals, their families, and their businesses. Penn Mutual supports its financial professionals with retirement and investment services through its wholly owned subsidiary Hornor, Townsend & Kent, LLC, member FINRA/SIPC.

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