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

Quarter Ended December 31, 2023

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

The following discussion highlights significant factors influencing results of operations and changes in financial position of Liberty Mutual Holding Company Inc., the parent corporation of the Liberty Mutual Insurance group of entities (the "Company" or "LMHC"), for the twelve months ended December 31, 2023 and 2022. This Management's Discussion & Analysis of Financial Condition and Results of Operations ("MD&A") should be read in conjunction with the Company's December 31, 2023 Audited Consolidated Financial Statements located on the Company's Investor Relations website at www.libertymutualgroup.com/investors. The Company's discussions related to net income are presented in conformity with US generally accepted accounting principles ("GAAP") on an after-tax basis. All other discussions are presented on a pre-tax GAAP basis, unless otherwise noted. Further, the Company notes that it may make material information regarding the Company available to the public, from time to time, via the Company's Investor Relations website at www.libertymutualgroup.com/investors (or any successor site).

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Cautionary Statement Regarding Forward Looking Statements

This report contains forward looking statements that are intended to enhance the reader's ability to assess the Company's future financial and business performance. Forward looking statements include, but are not limited to, statements that represent the Company's beliefs concerning future operations, strategies, financial results or other developments, and contain words and phrases such as "may," "expects," "should," "believes," "anticipates," "estimates," "intends" or similar expressions. Because these forward-looking statements are based on estimates and assumptions that are subject to significant business, economic and competitive uncertainties, many of which are beyond the Company's control or are subject to change, actual results could be materially different.

Some of the factors that could cause actual results to differ include, but are not limited to the following: the occurrence of catastrophic events (including terrorist acts, war or conflicts, civil unrest, hurricanes, hail, tornados, tsunamis, earthquakes, floods, snowfall and winter conditions); inadequacy of loss reserves; adverse developments involving asbestos, environmental or toxic tort claims and litigation; adverse developments in the cost, availability or ability to collect reinsurance; disruptions to the Company's relationships with its independent agents and brokers; financial disruption or a prolonged economic downturn; prolonged epidemic or pandemic in countries in which we operate; the performance of the Company's investment portfolios; a rise in interest rates; risks inherent in the Company's alternative investments in private limited partnerships ("LP"), limited liability companies ("LLC"), commercial mortgages and direct investments in natural resources; difficulty in valuing certain of the Company's investments; subjectivity in the determination of the amount of impairments taken on the Company's investments; unfavorable outcomes from litigation and other legal proceedings, including the effects of emerging claim and coverage issues and investigations by state and federal authorities; the Company's exposure to credit risk in certain of its business operations; the Company's inability to obtain price increases or maintain market share due to competition or otherwise; inadequacy of the Company's pricing models; changes to insurance laws and regulations; changes in the amount of statutory capital that the Company must hold to maintain its financial strength and credit ratings; regulatory restrictions on the Company's ability to change its methods of marketing and underwriting in certain areas; assessments for guaranty funds and mandatory pooling arrangements; a downgrade in the Company's claims-paying and financial strength ratings; the ability of the Company's subsidiaries to pay dividends to the Company; inflation, including inflation in medical costs and automobile and home repair costs; the cyclicality of the property and casualty insurance industry; political, legal, operational and other risks faced by the Company's international business; potentially high severity losses involving the Company's surety products; loss or significant restriction on the Company's ability to use credit scoring in the pricing and underwriting of personal lines policies; inadequacy of the Company's controls to ensure compliance with legal and regulatory standards; changes in US federal, foreign or state tax laws; risks arising out of the Company's securities lending program; the Company's utilization of information technology systems and its implementation of technology innovations; difficulties with technology or data security; insufficiency of the Company's business continuity plan in the event of a disaster; the Company's ability to successfully integrate operations, personnel and technology from its acquisitions; insufficiency of the Company's enterprise risk management models and modeling techniques; the Company's ability to identify and accurately assess complex and emerging risks, and changing climate conditions; and disruptions to the banking system.

The Company may also describe estimated impacts as a result of dispositions and acquisitions on the Company's financial results and condition, including to GAAP equity, which are deemed forward-looking statements and represent the Company's best estimates based on information available to us at this time. However, because these estimates involve making assumptions, including about future events, they are subject to business, economic and competitive uncertainties, many of which are beyond the Company's control, and are subject to change based on closing adjustments. Consequently, the actual impact on the Company's results could be materially different from those described herein. Some of the important factors that could cause actual results and outcomes to differ materially from those indicated in the forward-looking statements include, among others, the following: (i) the occurrence of any event, change, or other circumstances that could give rise to the termination of the signed transaction agreements; (ii) the inability of the parties to complete the proposed transaction, including due to failure to obtain certain regulatory approvals, or satisfy other conditions to closing the agreements; (iii) the possibility that the expected benefits of the sales are not realized when expected or at all; and (iv) any of the aforementioned risk factors listed in the above paragraphs that may also result in variability in possible outcomes.

The Company's forward-looking statements speak only as of the date of this report or as of the date they are made and should be regarded solely as the Company's current plans, estimates and beliefs. For a detailed discussion of these and other cautionary statements, visit the Company's Investor Relations website at www.libertymutualgroup.com/investors. The Company undertakes no obligation to update these forward-looking statements.

EXECUTIVE SUMMARY

The following highlights do not address all of the matters covered in the other sections of Management's Discussion & Analysis of Financial Condition and Results of Operations or contain all of the information that may be important to the investing public. This summary should be read in conjunction with the other sections of Management's Discussion & Analysis of Financial Condition and Results of Operations and the Company's 2023 Audited Consolidated Financial Statements.

Consolidated Results of Operations

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Net written premium	$11,330	$10,750	5.4%	$46,482	$45,365	2.5%
Pre-tax operating income before limited partnerships income[1]	1,110	646	71.8	622	324	92.0
Limited partnerships income	4	144	(97.2)	89	704	(87.4)
Net realized losses	(271)	(48)	NM	(296)	(652)	(54.6)
Acquisition & integration costs	(32)	(21)	52.4	(90)	(101)	(10.9)
Restructuring costs	(55)	(7)	NM	(121)	(10)	NM
Discontinued operations, net of tax	9	64	(85.9)	59	169	(65.1)
Consolidated net income	663	616	7.6	228	419	(45.6)
Less: Net income attributable to non-controlling interest	9	4	125.0	15	5	200.0
Net income attributable to LMHC	654	612	6.9	213	414	(48.6)
Net income attributable to LMHC excluding unrealized impact[2]	697	718	(2.9)	143	730	(80.4)
Cash flow provided by continuing operations	$1,328	$1,697	(21.7%)	$3,550	$5,588	(36.5%)

1 Limited partnerships income includes LP, LLC and other equity method income within net investment income in the accompanying Consolidated Statements of Operations and revenue and expenses from direct investments in natural resources.
2 Excludes unrealized gains on equity securities, unit linked life insurance, and the corresponding tax impact.
NM = Not Meaningful

	Three Months Ended December 31,			Twelve Months Ended December 31,		
	2023	**2022**	**Change (Points)**	**2023**	**2022**	**Change (Points)**
Underlying combined ratio[1]	91.1%	95.8%	(4.7)	93.4%	95.1%	(1.7)
Combined ratio[2]	95.1%	97.4%	(2.3)	102.7%	102.0%	0.7

1 The underlying combined ratio is computed as the combined ratio excluding the impact of catastrophes and prior accident year development. Catastrophes are defined as a natural catastrophe, civil unrest, terror event, war or conflict exceeding $25 million in estimated ultimate losses, net of reinsurance, and before taxes. Catastrophe losses, where applicable, include the impact of accelerated earned catastrophe premiums and earned reinstatement premiums. Net incurred losses attributable to prior years is defined as incurred losses attributable to prior years (including prior year losses related to catastrophes, prior year catastrophe reinstatement premium, and prior year commission expense) including earned premium attributable to prior years.
2 The combined ratio, expressed as a percentage, is a measure of underwriting profitability. This measure should only be used in conjunction with, and not in lieu of, underwriting income and may not be comparable to other performance measures used by the Company's competitors. The combined ratio is computed as the sum of the following property and casualty ratios: the ratio of claims and claim adjustment expense less managed care income to earned premium; the ratio of insurance operating costs plus amortization of deferred policy acquisition costs less third-party administration income and fee income (primarily related to the Company's involuntary market servicing carrier operations) and installment charges to earned premium; and the ratio of policyholder dividends to earned premium. Provisions for uncollectible premium and reinsurance are not included in the combined ratio unless related to an asbestos and environmental commutation and certain other run off. Restructuring and acquisition and integration costs are not included in the combined ratio.

$ in Millions	As of December 31, 2023	As of December 31, 2022	Change
Short-term debt[1]	$552	$547	0.9%
Long-term debt	9,607	10,053	(4.4)
Total debt	$10,159	$10,600	(4.2%)
Unassigned equity	$29,991	$29,822	0.6%
Accumulated other comprehensive loss	(5,127)	(7,830)	(34.5)
Non-controlling interest	196	216	(9.3)
Total equity	$25,060	$22,208	12.8%

1 Short-term debt is the current maturities of the 4.25% Notes, due June 15, 2023 and the 1.75% Notes, due March 27, 2024.

Subsequent Events

On January 31, 2024 the Western European Markets ("WEM") transaction closed and on March 1, 2024 the Andes transaction closed.

On February 28th, 2024, Liberty Mutual Group Inc. announced its intention to redeem €500 million 3.625% Series D Junior Subordinated Notes due 2059, on May 23, 2024, at the redemption price.

Management has assessed material subsequent events through March 6, 2024, the date the financial statements were available to be issued.

CONSOLIDATED RESULTS OF OPERATIONS

The Company has identified consolidated pre-tax operating income ("PTOI"), and PTOI before limited partnerships income as non-GAAP financial measures. PTOI is defined by the Company as pre-tax income excluding net realized gains (losses), loss on extinguishment of debt, discontinued operations, integration, other acquisition and restructuring related costs and cumulative effects of changes in accounting principles. Underlying PTOI is defined as PTOI excluding the impact of catastrophes and prior accident year development. Catastrophes are defined as a natural catastrophe, civil unrest, terror event, war or conflict exceeding $25 million in estimated ultimate losses, net of reinsurance, and before taxes. Catastrophe losses, where applicable, include the impact of accelerated earned catastrophe premiums and earned reinstatement premiums. Net incurred losses attributable to prior years is defined as incurred losses attributable to prior years (including prior year losses related to catastrophes, prior year catastrophe reinstatement premium, and prior year commission expense) including earned premium attributable to prior years. PTOI before limited partnerships income is defined as PTOI excluding LP and LLC results recognized on the equity method and revenue and expenses from direct investments in natural resources. PTOI before limited partnerships income and PTOI are considered by the Company to be appropriate indicators of underwriting and operating results and are consistent with the way the Company internally evaluates performance. Net realized gains/(losses) and limited partnerships income results are significantly impacted by both discretionary and economic factors and are not necessarily indicative of operating results, and the timing and amount of integration, other acquisition and restructuring related costs and the extinguishment of debt are not connected to the management of the insurance and underwriting aspects of the Company's business. Income taxes are impacted by permanent differences. References to Net Written Premium ("NWP") represent the amount of premium recorded for policies issued during a fiscal period including audits, retrospectively rated premium related to loss sensitive policies, and assumed premium, less ceded premium. Assumed and ceded reinsurance premiums include premium adjustments for reinstatement of coverage when a loss has used some portion of the reinsurance provided, generally under catastrophe treaties ("reinstatement premium"), and changes in estimated premium. In addition, the majority of workers compensation premium is adjusted to the "booked as billed" method through the Corporate and Other segment. The Company believes that NWP is a performance measure useful to investors as it generally reflects current trends in the Company's sale of its insurance products. The combined ratio is computed as the sum of the following property and casualty ratios: the ratio of claims and claim adjustment expense less managed care income to earned premium; the ratio of insurance operating costs plus amortization of deferred policy acquisition costs less third-party administration income and fee income (primarily related to the Company's involuntary market servicing carrier operations) and installment charges to earned premium; and the ratio of policyholder dividends to earned premium. Provisions for uncollectible premium and reinsurance are not included in the combined ratio unless related to an asbestos and environmental commutation and certain other run off. Restructuring and acquisition and integration costs are not included in the combined ratio. The combined ratio, expressed as a percentage, is a measure of underwriting profitability. The underlying combined ratio is computed as the combined ratio excluding the impact of catastrophes and prior accident year development. This measure should only be used in conjunction with, and not in lieu of, underwriting income and may not be comparable to other performance measures used by the Company's competitors.

The Company's discussions related to net income are presented on an after-tax GAAP basis. All other discussions are presented on a pre-tax GAAP basis, unless otherwise noted.

On July 13, 2023, the Company announced the realignment of its businesses to enhance focus on long-term strategic markets, while better leveraging scale advantages to drive improved profitability and faster innovation. The Company's realignment, effective August 1, 2023, featured the following changes:

- Global Retail Markets East ("GRM East") and Global Risk Solutions ("GRS") businesses in Asia were aligned together within Global Risk Solutions, combining the full suite of capabilities, and leveraging our collective expertise, relationships, and scale in a region where we see potential for profitable growth. This segment is called Asia Retail Markets ("ARM"). The prior periods have been restated to reflect this change.
- US Retail Markets ("USRM") consists of the US Personal Lines and Business Lines markets of the former Global Retail Markets business.

On June 15, 2023, the Company announced the sale of Liberty Seguros' personal and small commercial business operations in Ireland, Northern Ireland, Portugal, and Spain (collectively, the WEM transaction) to Generali Group. The WEM transaction is subject to regulatory approval.

On June 15, 2023, $547 million of Liberty Mutual Group, Inc. ("LMGI") 4.25% Notes were paid at maturity.

On May 27, 2023, the Company announced the sale of Liberty Seguros' personal and small commercial business in Brazil (the Brazil transaction), Chile, Colombia, and Ecuador (collectively, the Andes transaction) to Talanx Group. The Brazil transaction closed on November 22, 2023. The Andes transaction is subject to regulatory approval.

On December 2, 2022, LMGI issued €500 million of Senior Notes, due 2030 ("the 2030 Notes"). Interest is payable annually at a fixed rate of 4.625%. The 2030 Notes mature on December 2, 2030.

On July 28, 2022, the Company completed its acquisition of Malaysian insurer AmGeneral. Liberty Insurance Berhad acquired 100% shares of AmGeneral, and AmBank Group's share of the sale proceeds were in the form of cash and consideration shares, which resulted in AmBank Group retaining a 30% interest in the Liberty Insurance Berhad and AmGeneral businesses. On March 31, 2023, the AmGeneral and Liberty Insurance Berhad operations were formally merged.

On June 6, 2022, LMGI issued $1.000 billion of Senior Notes, due 2052 (the "2052 Notes"). Interest is payable semi-annually at a fixed rate of 5.50%. The 2052 Notes mature on June 15, 2052.

On May 2, 2022, $473 million of LMGI 4.95% Notes were paid at maturity.

On March 1, 2022, the Company completed its merger with State Automobile Mutual Insurance Company ("SAM"), a super-regional insurance company headquartered in Columbus, Ohio. Under the terms of the agreement, members of SAM became mutual members of the Company. The Company acquired all of the publicly held shares of common stock of SAM's subsidiary, State Auto Financial Corporation ("STFC"), for $52 per share in cash, totaling approximately $980 million. Direct costs related to the acquisition were expensed as incurred. Integration and acquisition costs principally consisting of non-recurring banking, legal, tax and accounting services, retention and severance costs are reflected separately on the Consolidated Statements of Operations. Financial results post acquisition date are included in the MD&A and Unaudited Consolidated Financial Statements.

The Company's two businesses are as follows:

- USRM consists of Personal Lines and Business Lines. US Personal Lines sells automobile, homeowners and other types of property and casualty insurance coverage to individuals in the United States. US Retail Markets is organized into the following segments: Personal lines and Business lines.

- GRS offers a wide array of property, casualty, automobile, specialty, life and health and reinsurance products distributed through multiple channels globally. Global Risk Solutions is organized into the following market segments: Liberty Specialty Markets, Liberty Mutual Reinsurance, North America, Global Surety, ARM and Other Global Risk Solutions.

Refer back to the additional risk factors that may impact the Company's financial results and condition are discussed in the section entitled "Cautionary Statement Regarding Forward Looking Statements". We undertake no obligation to update the estimated impact of these transactions after the date hereof. The Company does not obligate itself generally to make any other forward-looking statements in the future.

Overview – Consolidated

Consolidated NWP by significant line of business was as follows:

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Private passenger automobile	$3,344	$3,395	(1.5%)	$14,132	$14,369	(1.6%)
Homeowners	2,287	2,343	(2.4)	9,487	9,292	2.1
Global Risk Solutions specialty insurance[1]	1,046	1,105	(5.3)	4,091	4,204	(2.7)
Global Risk Solutions reinsurance	526	458	14.8	2,883	2,567	12.3
Commercial property	769	584	31.7	2,863	2,511	14.0
Commercial automobile	611	569	7.4	2,280	2,098	8.7
Commercial multiple-peril	528	581	(9.1)	2,254	2,324	(3.0)
Global Risk Solutions casualty[2]	621	785	(20.9)	1,914	2,391	(19.9)
Workers compensation	373	438	(14.8)	1,760	1,901	(7.4)
Surety	418	272	53.7	1,525	1,287	18.5
US Retail Markets general liability	263	273	(3.7)	1,165	1,161	0.3
Global Risk Solutions inland marine[3]	146	149	(2.0)	592	593	(0.2)
Global Risk Solutions other reinsurance	(3)	(449)	(99.3)	(110)	(140)	(21.4)
Corporate reinsurance[4]	(33)	(171)	(80.7)	(181)	(759)	(76.2)
Other[5]	434	418	3.8	1,827	1,566	16.7
Total NWP	$11,330	$10,750	5.4%	$46,482	$45,365	2.5%

1 Global Risk Solutions specialty insurance includes marine, energy, construction, aviation, warranty and indemnity, directors and officers, errors and omissions, trade credit, contingent lines and other.
2 Global Risk Solutions casualty primarily includes general liability, excess & umbrella and environmental lines of business.
3 Global Risk Solutions inland marine includes handset protection coverage for lost or damaged wireless devices.
4 NWP associated with internal reinsurance assumed into Corporate, net of corporate external placements.
5 Primarily includes NWP from allied lines, domestic inland marine, internal reinsurance, and life and health reported within US Retail Markets and life and health reported within Global Risk Solutions.

NWP for the three months ended December 31, 2023 was $11.330 billion, an increase of $580 million over the same period in 2022.

Significant changes by major line of business for the three months ended December 31, 2023 include:

- Private passenger automobile NWP decreased $51 million. The decrease reflects targeted actions to reduce new business growth in response to elevated severity and frequency trends. This is partially offset by an increase in average written premium due to rate actions to offset previously mentioned unfavorable trends.
- Homeowners NWP decreased $56 million. The decrease reflects targeted actions to reduce new business growth in response to elevated severity and frequency trends as well as ceded net written premium in US personal lines. This is partially offset by an increase in average written premium due to rate actions to offset previously mentioned unfavorable trends.
- Commercial property NWP increased $185 million. The increase reflects renewal rate increases.
- Global Risk Solutions casualty NWP decreased $164 million. The decrease reflects lower loss portfolio transfer premium and de-risking of the portfolio in unprofitable and economically challenging products.

- Global Risk Solutions other reinsurance NWP increased $446 million. The increase reflects lower ceded premium due to a premium adjustment on the casualty quota share and excess of loss treaties in Q4 2022 that did not recur in Q4 2023.

NWP for the twelve months ended December 31, 2023 was $46.482 billion, an increase of $1.117 billion over the same period in 2022.

Significant changes by major line of business for the twelve months ended December 31, 2023 include:

- Private passenger automobile NWP decreased $237 million. The decrease reflects targeted actions to reduce new business growth and targeted underwriting actions to address persistent severity and frequency trends and higher ceded net written premium.
- Homeowners NWP increased $195 million. The increase reflects an increase in average written premium due to rate actions to offset rising personal lines severity and frequency trends and the acquisition of SAM.
- Global Risk Solutions reinsurance increased $316 million. The increase reflects renewal rate increases.
- Commercial property increased $352 million. The increase reflects renewal rate increases.
- Global Risk Solutions casualty NWP decreased $477 million. The decrease reflects lower loss portfolio transfer premium and de-risking of the portfolio in unprofitable and economically challenging products.
- Corporate reinsurance NWP increased $578 million. The increase reflects a new internal reinsurance placement.

Consolidated NWP by business was as follows:

	Three Months Ended December 31,			**Twelve Months Ended December 31,**		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
US Retail Markets	$7,069	$7,212	(2.0%)	$29,859	$29,816	0.1%
Global Risk Solutions	4,294	3,662	17.3	16,800	16,267	3.3
Corporate and Other	(33)	(124)	(73.4)	(177)	(718)	(75.3)
Total NWP	$11,330	$10,750	5.4%	$46,482	$45,365	2.5%
Foreign exchange effect on growth			0.4			(0.1)
NWP growth excluding foreign exchange[1]			5.0%			2.6%

1 Determined by assuming constant foreign exchange rates between periods.

Consolidated NWP by geographic distribution channels was as follows:

	Three Months Ended December 31,			**Twelve Months Ended December 31,**		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
US	$9,876	$9,600	2.9%	$40,465	$39,859	1.5%
International excluding foreign exchange[1]	1,415	1,150	23.0	6,076	5,506	10.4
Foreign exchange[1]	39	-	-	(59)	-	-
Total NWP	$11,330	$10,750	5.4%	$46,482	$45,365	2.5%

1 Determined by assuming constant foreign exchange rates between periods.

For a more complete description of the Company's business operations, products and distribution channels, and other material information, please visit the Company's Investor Relations web site at www.libertymutualgroup.com/investors.

Results of Operations – Consolidated

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Revenues	$12,567	$12,351	1.7%	$49,412	$47,179	4.7%
Underlying PTOI before limited partnerships income	1,553	909	70.8	4,895	3,319	47.5
Catastrophes	(233)	(389)	(40.1)	(4,684)	(3,556)	31.7
Net incurred losses attributable to prior years:						
- Asbestos and environmental[1]	(110)	(96)	14.6	(110)	(96)	14.6
- All other[2]	(40)	222	NM	521	657	(20.7)
Current accident year re-estimation[3]	(60)	-	NM	-	-	-
Pre-tax operating income before limited partnerships income	1,110	646	71.8	622	324	92.0
Limited partnerships income[4]	4	144	(97.2)	89	704	(87.4)
Pre-tax operating income	1,114	790	41.0	711	1,028	(30.8)
Net realized losses	(271)	(48)	NM	(296)	(652)	(54.6)
Acquisition & integration costs	(32)	(21)	52.4	(90)	(101)	(10.9)
Restructuring costs	(55)	(7)	NM	(121)	(10)	NM
Pre-tax income	756	714	5.9	204	264	(22.7)
Income tax expense	102	162	(37.0)	35	14	150.0
Consolidated net income from continuing operations	654	552	18.5	169	250	(32.4)
Discontinued operations, net of tax	9	64	(85.9)	59	169	(65.1)
Consolidated net income	663	616	7.6	228	419	(45.6)
Less: Net income attributable to non-controlling interest	9	4	125.0	15	5	200.0
Net income attributable to LMHC	654	612	6.9	213	414	(48.6)
Net income attributable to LMHC excluding unrealized impact[5]	697	718	(2.9)	143	730	(80.4)
Cash flow provided by continuing operations	$1,328	$1,697	(21.7%)	$3,550	$5,588	(36.5%)

1 Asbestos and environmental is gross of the related adverse development reinsurance (the "NICO Reinsurance Transaction", which is described further in Reinsurance).
2 Net of earned premium and reinstatement premium attributable to prior years of $300 million and $340 million for the three and twelve months ended December 31, 2023, and $283 million and $436 million for the same periods in 2022.
3 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2023.
4 Limited partnerships income includes LP, LLC and other equity method income within net investment income in the accompanying Consolidated Statements of Operations and revenue and expenses from direct investments in natural resources.
5 Excludes unrealized gains on equity securities, unit linked life insurance, and the corresponding tax impact.
NM = Not Meaningful

Limited Partnerships Income	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Limited partnerships income[1]	$8	$148	(94.6%)	$99	$716	(86.2%)
Direct investment in natural resources revenues[2]	4	4	0.0	8	7	14.3
Direct investment in natural resources expenses[3]	(8)	(8)	0.0	(18)	(19)	(5.3)
Total limited partnerships income	$4	$144	(97.2%)	$89	$704	(87.4%)

1 Included within net investment income in the accompanying Consolidated Statements of Operations.
2 Included within fee & other revenues in the accompanying Consolidated Statements of Operations.
3 Included within operating costs and expenses in the accompanying Consolidated Statements of Operations.

Net Investment Income $ in Millions	Three Months Ended December 31, 2023	2022	Twelve Months Ended December 31, 2023	2022
Taxable interest income	$707	$615	$2,710	$2,021
Tax-exempt interest income	29	35	118	150
Dividends	14	8	36	41
Limited partnerships income	8	148	99	716
Mortgage loans	51	48	216	143
Other investment income	88	(5)	193	13
Gross investment income	897	849	3,372	3,084
Investment expenses[1]	(117)	(98)	(414)	(369)
Total net investment income	$780	$751	$2,958	$2,715

1 Fees paid to external managers are included within the components of gross investment income.

Net Realized (Losses) Gains $ in Millions	Sales & Settlements	Impairments	Unrealized Gains (Losses)	Total
Three Months Ended December 31, 2023:				
Fixed maturities	($142)	$ -	$ -	($142)
Equities	(12)	-	19	7
Derivatives	-	-	(80)	(80)
Other	(13)	(60)	17	(56)
Total	($167)	($60)	($44)	($271)
Three Months Ended December 31, 2022:				
Fixed maturities	($65)	($5)	$ -	($70)
Equities	-	-	(10)	(10)
Derivatives	-	-	4	4
Other	61	(19)	(14)	28
Total	($4)	($24)	($20)	($48)

Net Realized (Losses) Gains $ in Millions	Sales & Settlements	Impairments	Unrealized Gains (Losses)	Total
Twelve Months Ended December 31, 2023:				
Fixed maturities	($333)	($12)	$ -	($345)
Equities	(6)	-	29	23
Derivatives	33	-	(3)	30
Other	3	(66)	59	(4)
Total	($303)	($78)	$85	($296)
Twelve Months Ended December 31, 2022:				
Fixed maturities	($228)	($33)	$ -	($261)
Equities	(77)	-	(454)	(531)
Derivatives	6	-	32	38
Other	71	(57)	88	102
Total	($228)	($90)	($334)	($652)

Unrealized Gains (Losses) Related to Equity Securities[1]	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Net gains (losses) recognized during the period on equity securities	$36	($24)	NM	$88	($366)	NM
Less: Net (losses) gains recognized during the period on equity securities sold during the period	-	-	-	16	(401)	NM
Unrealized gains (losses) recognized during the reporting period on equity securities still held at the reporting date	$36	($24)	NM	$72	$35	105.7%

1 Includes equities and equity like securities classified as other.
NM = Not Meaningful

Fourth Quarter Results:

Pre-tax operating income before limited partnerships income for the three months ended December 31, 2023 was $1.110 billion, an increase of $464 million over the same period in 2022. Underlying pre-tax operating income before limited partnerships income was $1.553 billion, an increase of $644 million over the same period in 2022. The increase in underlying pre-tax operating income primarily reflects:

- Favorable non-catastrophe losses driven by improved personal lines loss trends and our continued underwriting actions to limit risk exposure in US Retail Markets.
- Profit margin on higher earned premium in Global Risk Solutions.
- Higher net investment income
- Favorable expenses compared to prior year driven by reduced advertising spend, lower employee related costs, and lower variable expenses as a result of targeted new business reductions in US Retail Markets.

Partially offset by:

- Lower earned premium driven by targeted actions to slow new business growth in US Retail Markets.
- Higher employee related costs in Corporate and Global Risk Solutions
- Unfavorable current year loss activity in Global Risk Solutions.

Including the impact of catastrophes, net incurred losses attributable to prior years, and current year re-estimation, the increase in pre-tax operating income before limited partnerships income primarily reflects:

- Lower-than-expected catastrophe losses driven by favorable severity and frequency of events in Q4 2023 versus Q4 2022 in US Retail Markets.
- Favorable prior accident year activity due to greater reserve releases in Q4 2023 in Global Risk Solutions.
- Lower limited partnerships income.
- The changes to underlying PTOI mentioned above

Partially offset by:

- Unfavorable net incurred losses attributed to prior years driven by balance sheet strengthening in US Retail Markets.
- Higher current year catastrophe losses due to favorable loss development in Q4 2022 that did not recur, primarily driven by Hurricane Ian in Global Risk Solutions.
- Unfavorable current accident year re-estimation due to resetting of the current accident year to a higher baseline primarily within liability lines in Global Risk Solutions.
- Less unfavorable incurred losses attributable to prior years versus the prior period in Corporate

Limited partnerships income, including operating income from direct investments in natural resources, for the three months ended December 31, 2023 was $4 million, a decrease of $140 million from the same period in 2022. The decrease primarily reflects:

- Less favorable valuations driven by private capital investments.

Revenues for the three months ended December 31, 2023 were $12.567 billion, an increase of $216 million over the same period in 2022. The major components of revenues are net premium earned, net investment income, net realized gains (losses), and fee and other revenues.

Net premium earned for the three months ended December 31, 2023 was $11.827 billion, an increase of $409 million over the same period in 2022. The increase primarily reflects the premium earned associated with the changes in NWP previously discussed.

Net investment income for the three months ended December 31, 2023 was $780 million, an increase of $29 million over the same period in 2022. The increase, excluding the impact of limited partnerships, primarily reflects:

- Higher fixed maturity yields
- Favorable international income

Net realized losses for the three months ended December 31, 2023 were $271 million, an increase of $223 million over the same period in 2022. The net realized losses in the current quarter were primarily driven by:

- $142 million of net losses on fixed maturity sales.
- $80 million of net losses on derivatives.
- $60 million of impairments.
- $25 million of net losses on equity and other sales.

Partially offsetting losses was:

- $19 million net change in equity unrealized gains.
- $28 million net change in unrealized gains on energy holdings.

The prior period was impacted by:

- $70 million of net losses on fixed maturity sales.
- $24 million of impairments.
- $20 million of net change in unrealized losses on energy holdings.

Partially offsetting losses was:

- $28 million gains of natural resource investments.

Fee and other revenues for the three months ended December 31, 2023 were $231 million, an increase of $1 million over the same period in 2022.

Claims, benefits and expenses for the three months ended December 31, 2023 were $11.724 billion, an increase of $115 billion over the same period in 2022. The increase primarily reflects:

- Higher current year catastrophe losses due to favorable loss development in Q4 2022 that did not recur, primarily driven by Hurricane Ian in Global Risk Solutions.
- Higher employee related costs in Global Risk Solutions and Corporate.
- Unfavorable current year loss activity in Global Risk Solutions.
- Unfavorable net incurred losses attributed to prior years driven by balance sheet strengthening in US Retail Markets.
- Loss and commissions adjustment on the casualty quota share and excess of loss treaties in Q4 2022 that did not recur in Global Risk Solutions.

Partially offset by:

- Favorable prior accident year activity due to greater reserve releases in Q4 2023 in Global Risk Solutions.
- Favorable non-catastrophe losses driven by improved personal lines loss trends and our continued underwriting actions to limit risk exposure in US Retail Markets.
- Lower-than-expected catastrophe losses driven by favorable severity and frequency of events in Q4 2023 versus Q4 2022 in US Retail Markets.
- Favorable expenses compared to prior year driven by reduced advertising spend, lower employee related costs, and lower variable expenses as a result of lower new business in US Retail Markets.
- Favorable reinsurance recoveries

Income tax expense on continuing operations for the three months ended December 31, 2023 was $102 million, a decrease of $60 million from the same period in 2022. The Company's effective tax rate for the three months ended December 31, 2023 was 13.5% compared to 22.8% for the same period in 2022. The decrease in the effective tax rate primarily reflects:

- The tax impact of permanent book-to-tax differences and non-US operations as compared to the pretax income/(loss) in the relevant period.

Discontinued operations, net of tax, for the three months ended December 31, 2023 were $9 million, a decrease of $55 million from the same period in 2022.

Net income attributable to LMHC for the three months ended December 31, 2023 was $654 million, an increase of $42 million over the same period in 2022.

Cash flow provided by continuing operations for the three months ended December 31, 2023 was $1.328 billion, a decrease of $369 million from the same period in 2022. The decrease reflects unfavorable paid loss activity and premium collections.

Year-to-date Results:

Pre-tax operating income before limited partnerships income for the twelve months ended December 31, 2023 was $622 million, an increase of $298 million over the same period in 2022. Underlying pre-tax operating income before limited partnerships income was $4.895 billion, an increase of $1.576 million over the same period in 2022. The acquisition of SAM on March 1, 2022 resulted in two additional months of non-catastrophe loss exposure, earned premium, and expenses for US personal lines and US business lines in 2023 compared to the same period last year. Additionally, the acquisition of AmGeneral on July 28, 2022 resulted in a full year of additional loss exposure, earned premium, and expense in 2023 versus seven months of loss exposure, earned premium, and expenses in 2022 within ARM. The increase in underlying pre-tax operating income primarily reflects:

- Higher earned premium driven by increased average written premium from rate actions to offset rising personal lines frequency and severity trends in US Retail Markets.
- Favorable non-catastrophe losses over prior year due to improved severity and frequency trends in US Retail Markets.
- Favorable expenses compared to prior year driven by reduced advertising spend, lower employee related costs, and lower variable expenses as a result of targeted new business reductions in US Retail Markets.
- Higher net investment income
- Profit margin on higher earned premium in Global Risk Solutions.
- Lower commissions in Global Risk Solutions.

Partially offset by:

- Higher employee related costs in Corporate and Global Risk Solutions
- Unfavorable foreign exchange in Global Risk Solutions.
- A worker's compensation surplus refund from the state of Minnesota in 2022 that did not recur in Global Risk Solutions.

Including the impact of catastrophes, net incurred losses attributable to prior years, the increase in pre-tax operating income before limited partnerships income primarily reflects:

- Lower current year catastrophe losses in Global Risk Solutions.
- Favorable prior accident year activity due to greater releases in 2023 in Global Risk Solutions.
- The changes to underlying PTOI mentioned above

Partially offset by:

- Higher-than-expected catastrophe losses driven by elevated severity and frequency of events in 2023, primarily due to heightened severe convective storm activity in Q2 and Q3 in US Retail Markets.
- Additional catastrophe loss exposure from the previously mentioned SAM acquisition.
- Less favorable development of net prior year incurred losses in 2023 compared to prior year in US Retail Markets.

Limited partnership income, including operating income from direct investments in natural resources, for the twelve months ended December 31, 2023 was $89 million, a decrease of $615 million from the same period in 2022. The decrease primarily reflects:

- Less favorable valuations driven by private capital and energy investments.

Revenues for the twelve months ended December 31, 2023 were $49.412 billion, an increase of $2.233 billion over the same period in 2022. The major components of revenues are net premium earned, net investment income, net realized gains (losses), and fee and other revenues.

Net premium earned for the twelve months ended December 31, 2023 was $45.877 billion, an increase of $1.617 billion over the same period in 2022. The increase primarily reflects the premium earned associated with the changes in NWP previously discussed.

Net investment income for the twelve months ended December 31, 2023 was $2.958 billion, an increase of $243 million over the same period in 2022. The increase, excluding the impact of limited partnerships, primarily reflects:

- Higher fixed maturity yields
- Favorable international income

Net realized losses for the twelve months ended December 31, 2023 were $296 million, a decrease of $356 million from the same period in 2022.
The net realized losses in the current period were primarily impacted by:

- $333 million net losses on fixed maturities sales.
- $78 million of impairments.
- $17 million net change in derivative and other unrealized losses.

Partially offsetting losses were:

- $73 million net change in unrealized gains on energy holdings.
- $30 million net gains on derivatives sales.
- $29 million net change in equity unrealized gains.

The prior period was impacted by:

- $454 million net change in equity unrealized losses.
- $228 million of net losses on fixed maturity sales.
- $90 million of impairments.

Partially offsetting losses were:

- $67 million net change in unrealized on energy holdings.
- $102 million gains on natural resource investments.
- $38 million net gains on derivative investments.

Fee and other revenues for the twelve months ended December 31, 2023 were $873 million, an increase of $17 million over the same period in 2022.

Claims, benefits and expenses for the twelve months ended December 31, 2023 were $48.997 billion, an increase of $2.193 billion over the same period in 2022. The increase primarily reflects:

- Previously mentioned unfavorable catastrophe losses driven by elevated severity and frequency of severe convective storm activity in 2023 in US Retail Markets.
- Additional claims, benefits, and expenses from the previously mentioned acquisition of SAM.
- Unfavorable reinsurance recoveries
- Higher employee related costs in Corporate and Global Risk Solutions.
- The loss and commissions adjustment on the casualty quota share and excess of loss treaties in 2022 that did not recur in Global Risk Solutions.

Partially offset by:

- Lower advertising spend and variable expenses driven by strategic actions taken to limit new business production in US Retail Markets.
- Lower current year catastrophe losses in Global Risk Solutions.
- Favorable prior accident year activity due to greater releases in 2023 in Global Risk Solutions.
- Lower commissions in Global Risk Solutions.

Income tax expense on continuing operations for the twelve months ended December 31, 2023 was $35 million, an increase of $21 million over the same period in 2022. The Company's effective tax rate for the twelve months ended December 31, 2023 was 17.2% compared to 5.3% for the same period in 2022. The increase in the effective tax rate primarily reflects:

- One-time impacts related to the non-US operations recorded in the prior year.

Discontinued operations, net of tax, for the twelve months ended December 31, 2023 were $59 million, a decrease of $110 million from the same period in 2022.

Net income attributable to LMHC for the twelve months ended December 31, 2023 was $213 million, a decrease of $201 million from the same period in 2022.

Cash flow provided by continuing operations for the twelve months ended December 31, 2023 was $3.550 billion, a decrease of $2.038 billion from the same period in 2022. The decrease reflects unfavorable paid loss activity and premium collections.

	Three Months Ended December 31,			**Twelve Months Ended December 31,**		
CONSOLIDATED	**2023**	**2022**	**Change (Points)**	**2023**	**2022**	**Change (Points)**
Combined ratio						
Claims and claim adjustment expense ratio	62.4%	67.2%	(4.8)	65.3%	66.8%	(1.5)
Underwriting expense ratio	28.7	28.6	0.1	28.1	28.3	(0.2)
Underlying combined ratio	91.1	95.8	(4.7)	93.4	95.1	(1.7)
Catastrophes	2.0	2.6	(0.6)	10.3	8.1	2.2
Net incurred losses attributable to prior years:						
- Asbestos and environmental	0.9	0.9	-	0.2	0.2	-
- All other[1]	0.6	(1.9)	2.5	(1.2)	(1.4)	0.2
Current accident year re-estimation[2]	0.5	-	0.5	-	-	-
Total combined ratio	95.1%	97.4%	(2.3)	102.7%	102.0%	0.7

1 Net of earned premium and reinstatement premium attributable to prior years.
2 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2023.

Fourth Quarter Results:

The consolidated underlying combined ratio for the three months ended December 31, 2023 was 91.1%, a decrease of 4.7 points from the same period in 2022. The underlying combined ratio includes higher commissions and losses mostly offset by favorable earned premium due to the adjustment on the casualty quota share and excess of loss treaties in Q4 2022 in Global Risk Solutions. Excluding that adjustment, the decrease primarily reflects:

- Decrease in claims and claim adjustment expense ratio primarily driven by favorable non-catastrophe loss ratio over prior year due to improved severity and frequency trends in US Retail Markets.
- Decrease in the underwriting expense ratio driven by reduced advertising spend, employee related costs, and variable expenses in US Retail Markets.

Partially offset by:

- Unfavorable current year loss activity in Global Risk Solutions.
- Higher expenses due to an increase in employee related costs in Global Risk Solutions.

Including the impact of catastrophes, net incurred losses attributable to prior years, and current year re-estimation, the total combined ratio for the three months ended December 31, 2023 was 95.1%, a decrease of 2.3 points from the same period in 2022. The decrease primarily reflects:

- Previously mentioned favorable Q4 catastrophe losses driven by improved frequency and severity of events compared to the same period in 2022 in US Retail Markets.
- Previously mentioned decrease in the underlying combined ratio in US Retail Markets.
- Favorable prior accident year activity due to greater reserve releases in Q4 2023 in Global Risk Solutions.

Partially offset by:

- Unfavorable net incurred losses attributed to prior years driven by prior year strengthening in US Retail Markets.
- Higher current year catastrophe losses due favorable loss development in Q4 2022 that did not recur, primarily driven by Hurricane Ian in Global Risk Solutions.

- Unfavorable current accident year re-estimation due to resetting of the current accident year to a higher baseline primarily within liability lines in Global Risk Solutions.
- The changes to the underlying combined ratio mentioned above

Year-to-date Results:

The consolidated underlying combined ratio for the twelve months ended December 31, 2023 was 93.4%, a decrease of 1.7 points from the same period in 2022. The decrease primarily reflects:

- Decrease in claims and claim adjustment expense ratio primarily driven by favorable non-catastrophe loss ratio over prior year due to improved severity and frequency trends in US Retail Markets.
- Favorable current year loss activity due to rate and higher earned premium in GRS
- Decrease in the underwriting expense ratio driven by reduced advertising spend, employee related costs and variable expenses in US Retail Markets.
- Lower commissions in Global Risk Solutions.

Partially offset by:

- Higher expenses due to an increase in employee related costs in Global Risk Solutions.

Including the impact of catastrophes, net incurred losses attributable to prior years, the total combined ratio for the twelve months ended December 31, 2023 was 102.7%, an increase of 0.7 points over the same period in 2022. The increase primarily reflects:

- Previously mentioned unfavorable catastrophe losses driven by elevated severity and frequency of events, primarily due to heightened severe convective storm activity in Q2 and Q3 in US Retail Markets.
- Less favorable development of net prior year incurred losses in 2023 compared to prior year in US Retail Markets**.**

Partially offset by:

- Previously mentioned decrease in the underlying combined ratio in US Retail Markets.
- Lower current year catastrophe losses in Global Risk Solutions.
- Favorable prior accident year activity due to greater releases in 2023 in Global Risk Solutions.

US RETAIL MARKETS

Overview – US Retail Markets

US Retail Markets consists of Personal Lines and Business Lines. US Personal Lines sells automobile, homeowners and other types of property and casualty insurance coverage to individuals in the United States. These products are distributed through approximately 1,380 licensed employee Comparion agents, 820 licensed telesales counselors, independent agents, third-party producers, online, and sponsored affinity groups. US Business Lines serves small commercial customers through an operating model that combines local underwriting, market knowledge and service with the scale advantages of a national company. On March 1, 2022, the Company completed the acquisition of SAM, a super-regional insurance holding company headquartered in Columbus, Ohio. With this acquisition, the US began including US Personal and Business Lines coverages sold under the recently acquired SAM brand.

NWP by market segment was as follows:

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Personal lines	$5,753	$5,830	(1.3%)	$24,292	$24,320	(0.1%)
Business lines	1,316	1,382	(4.8)	5,567	5,496	1.3
Total USRM NWP	$7,069	$7,212	(2.0%)	$29,859	$29,816	0.1%

NWP by line of business was as follows:

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Private passenger automobile	$3,043	$3,090	(1.5%)	$13,063	$13,427	(2.7%)
Homeowners	2,287	2,343	(2.4)	9,487	9,292	2.1
Commercial multiple-peril	496	544	(8.8)	2,134	2,197	(2.9)
Commercial automobile	361	350	3.1	1,396	1,313	6.3
General liability	263	273	(3.7)	1,165	1,161	0.3
Commercial property	166	157	5.7	694	625	11.0
Workers compensation	95	131	(27.5)	482	562	(14.2)
Life and health	-	-	-	1	1	-
Other[1]	358	324	10.5	1,437	1,238	16.1
Total NWP	$7,069	$7,212	(2.0%)	$29,859	$29,816	0.1%

1 Premium related to other personal and commercial lines including personal accident, bonds, small and medium enterprise, and marine and cargo lines of business.

Fourth Quarter Results:

NWP for the three months ended December 31, 2023 was $7.069 billion, a decrease of $143 million from the same period in 2022. The decrease primarily reflects:

- Strategic actions in both personal and business lines to reduce new business growth and targeted underwriting actions to address persistent severity and frequency trends.
- Increased ceded net written premium in US personal lines.

Partially offset by:

- US personal lines increase in average written premium due to rate actions to offset elevated severity and frequency trends.

Year-to-date Results:

NWP for the twelve months ended December 31, 2023 was $29.859 billion, an increase of $43 million over the same period in 2022. The increase primarily reflects:

- Higher net written premium driven by the acquisition of SAM on March 1, 2022 which resulted in two additional months of topline production for US personal lines and US business lines in 2023 compared to the same period last year.
- US personal lines increase in average written premium due to rate actions to offset elevated severity and frequency trends.

Partially offset by:

- Strategic actions in both personal and business lines to reduce new business growth and targeted underwriting actions to address persistent severity and frequency trends.
- Increased ceded net written premium in US personal lines.

Results of Operations – US Retail Markets

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Revenues	$7,797	$7,855	(0.7%)	$30,802	$29,870	3.1%
Underlying PTOI	$1,093	$525	108.2	$2,662	$1,642	62.1
Catastrophes	(118)	(485)	(75.7)	(4,033)	(2,538)	58.9
Net incurred losses attributable to prior years[1]	(309)	117	NM	200	490	(59.2)
Pre-tax operating income (loss)	$666	$157	NM	($1,171)	($406)	188.4%

1 Net of earned premium and reinstatement premium attributable to prior years of zero and ($4) million for the three and twelve months ended December 31, 2023, respectively.
NM = Not Meaningful

Fourth Quarter Results:

Pre-tax operating income for the three months ended December 31, 2023 was $666 million, an increase of $509 million over the same period in 2022. Underlying pre-tax operating income was $1.093 billion, an increase of $568 million over the same period in 2022. The change in underlying pre-tax operating income primarily reflects:

- Favorable non-catastrophe losses driven by improved personal lines loss trends and our continued underwriting actions to limit risk exposure.
- Favorable expenses compared to prior year driven by reduced advertising spend, lower employee related costs, and lower variable expenses as a result of targeted new business reductions.

Partially offset by:

- Lower earned premium driven by targeted actions to slow new business growth.

Including the impact of catastrophes and net incurred losses attributable to prior years, the increase in pre-tax operating income primarily reflects:

- Previously mentioned increase in underlying pre-tax operating income.
- Lower-than-expected catastrophe losses driven by favorable severity and frequency of events in Q4 2023 versus Q4 2022.

Partially offset by:

- Unfavorable net incurred losses attributed to prior years driven by balance sheet strengthening.

Revenues for the three months ended December 31, 2023 were $7.797 billion, a decrease of $58 million from the same period in 2022. The decrease primarily reflects:

- Lower earned premium driven by targeted actions to slow new business growth.

Partially offset by:

- Higher net investment income than the same period last year.

Claims, benefits, and expenses for the three months ended December 31, 2023 were $7.134 billion, a decrease of $563 million from the same period in 2022. The decrease primarily reflects:

- Favorable non-catastrophe losses driven by improved personal lines loss trends and our continued underwriting actions to limit risk exposure.

- Lower-than-expected catastrophe losses driven by favorable severity and frequency of events in Q4 2023 versus Q4 2022.
- Favorable expenses compared to prior year driven by reduced advertising spend, lower employee related costs, and lower variable expenses as a result of lower new business.

Partially offset by:

- Unfavorable net incurred losses attributed to prior years driven by balance sheet strengthening.

Year-to-date Results:

Pre-tax operating loss for the twelve months ended December 31, 2023 was ($1.171) billion, an increase of $765 million over the same period in 2022. Underlying pre-tax operating income was $2.662 billion, an increase of $1.020 billion over the same period in 2022. The acquisition of SAM on March 1, 2022 resulted in two additional months of non-catastrophe loss exposure, earned premium, and expenses for US personal lines and US business lines in 2023 compared to the same period last year.

The remaining change in underlying pre-tax operating income primarily reflects:

- Higher earned premium driven by increased average written premium from rate actions to offset rising personal lines frequency and severity trends.
- Favorable non-catastrophe losses over prior year due to improved severity and frequency trends.
- Higher net investment income than the same period last year.
- Favorable expenses compared to prior year driven by reduced advertising spend, lower employee related costs, and lower variable expenses as a result of targeted new business reductions.

Including the impact of catastrophes and net incurred losses attributable to prior years, the increase in pre-tax operating loss primarily reflects:

- Higher-than-expected catastrophe losses driven by elevated severity and frequency of events in 2023, primarily due to heightened severe convective storm activity in Q2 and Q3.
- Additional catastrophe loss exposure from the previously mentioned SAM acquisition.
- Less favorable development of net prior year incurred losses in 2023 compared to prior year**.**

Partially offset by:

- Previously mentioned increase in underlying pre-tax operating income.

Revenues for the twelve months ended December 31, 2023 were $30.802 billion, an increase of $932 million over the same period in 2022. The increase primarily reflects:

- Higher earned premium driven by increased average written premium.
- Additional earned premium from the previously mentioned acquisition of SAM.
- Higher net investment income than the same period last year.

Claims, benefits, and expenses for the twelve months ended December 31, 2023 were $31.975 billion, an increase of $1.701 billion over the same period in 2022. The increase primarily reflects:

- Previously mentioned unfavorable catastrophe losses driven by elevated severity and frequency of severe convective storm activity in 2023.
- Additional claims, benefits, and expenses from the previously mentioned acquisition of SAM.

Partially offset by:

- Lower advertising spend and variable expenses driven by strategic actions taken to limit new business production.

US RETAIL MARKETS	Three Months Ended December 31, 2023	2022	Change (Points)	Twelve Months Ended December 31, 2023	2022	Change (Points)
Combined ratio						
Claims and claim adjustment expense ratio	63.1%	68.2%	(5.1)	67.6%	69.6%	(2.0)
Underwriting expense ratio	24.2	26.5	(2.3)	25.0	25.8	(0.8)
Underlying combined ratio	87.3	94.7	(7.4)	92.6	95.4	(2.8)
Catastrophes	1.6	6.4	(4.8)	13.6	8.8	4.8
Net incurred losses attributable to prior years[1]	4.1	(1.5)	5.6	(0.7)	(1.7)	1.0
Total combined ratio	93.0%	99.6%	(6.6)	105.5%	102.5%	3.0

1 Net of earned premium and reinstatement premium attributable to prior years.

Fourth Quarter Results:

The US Retail Markets underlying combined ratio for the three months ended December 31, 2023 was 87.3%, a decrease of 7.4 points from the same period in 2022. This decrease primarily reflects:

- Decrease in claims and claim adjustment expense ratio primarily driven by favorable non-catastrophe loss ratio over prior year due to improved severity and frequency trends.
- Decrease in the underwriting expense ratio driven by reduced advertising spend, employee related costs, and variable expenses.

Including the impact of catastrophes and net incurred losses attributable to prior years, the total combined ratio for the three months ended December 31, 2023 was 93.0%, a decrease of 6.6 points from the same period in 2022. The decrease primarily reflects:

- Previously mentioned decrease in the underlying combined ratio.
- Previously mentioned favorable Q4 catastrophe losses driven by improved frequency and severity of events compared to the same period in 2022.

Partially offset by:

- Unfavorable net incurred losses attributed to prior years driven by balance sheet strengthening.

Year-to-date Results:

The US Retail Markets underlying combined ratio for the twelve months ended December 31, 2023 was 92.6%, a decrease of 2.8 points from the same period in 2022. The decrease primarily reflects:

- Decrease in claims and claim adjustment expense ratio primarily driven by favorable non-catastrophe loss ratio over prior year due to improved severity and frequency trends.
- Decrease in the underwriting expense ratio driven by reduced advertising spend, employee related costs and variable expenses.

Including the impact of catastrophes and net incurred losses attributable to prior years, the total combined ratio for the twelve months ended December 31, 2023 was 105.5%, an increase of 3.0 points over the same period in 2022. The increase primarily reflects:

- Previously mentioned unfavorable catastrophe losses driven by elevated severity and frequency of events, primarily due to heightened severe convective storm activity in Q2 and Q3.
- Less favorable development of net prior year incurred losses in 2023 compared to prior year.

GLOBAL RISK SOLUTIONS

Overview – Global Risk Solutions

GRS offers a wide array of property, casualty, automobile, specialty, life and health and reinsurance products and services distributed through multiple channels globally. The segments for Global Risk Solutions are as follows:

- Liberty Specialty Markets ("LSM") – Includes most Global Risk Solutions business outside of North America excluding Liberty Mutual Reinsurance and Asia Retail Markets.
- Liberty Mutual Reinsurance ("LM Re") - Sells insurance for (Re)/insurers to transfer risk away from (Re)/insurance companies.
- North America ("NA") – North America includes admitted and non-admitted property and casualty.
- Global Surety – A global leader providing surety guarantees to businesses ranging from multinational to local in most industry segments.
- ARM – sells property and casualty, health and life insurance products and services to individuals and businesses in the Asia Market (Thailand, Singapore, Hong Kong, Vietnam), Malaysia, India, and China. Private passenger automobile insurance is the single largest line of business.
- Other Global Risk Solutions primarily consists of internal reinsurance programs, Ironshore international entities and a large global inland marine program.

Effective August 1, 2023, GRM East and Global Risk Solutions businesses in Asia were aligned together within GRS, combining the full suite of capabilities, and leveraging our collective expertise, relationships, and scale in a region where we see potential for profitable growth. This segment is called ARM. The prior periods have been restated to reflect this change.

On July 28, 2022, the Company completed its acquisition of Malaysian insurer AmGeneral. Liberty Insurance Berhad acquired 100% shares of AmGeneral, and AmBank Group's share of the sale proceeds were in the form of cash and consideration shares, which resulted in AmBank Group holding a 30% interest in the Liberty Insurance Berhad and AmGeneral businesses. On March 31, 2023, the AmGeneral and Liberty Insurance Berhad operations were formally merged.

Effective July 1, 2022, LM Re became a fourth segment of GRS, alongside NA, LSM and Global Surety. Previously, the business was embedded within LSM. LM Re will allow GRS to capitalize on the relative value and capital optimization between insurance and reinsurance, and strategically increase our reinsurance profile.

Global Risk Solutions NWP by market segment was as follows:

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
North America	$1,785	$1,849	(3.5%)	$6,710	$6,963	(3.6%)
Liberty Specialty Markets	992	981	1.1	3,556	3,588	(0.9)
Liberty Mutual Reinsurance	526	458	14.8	2,883	2,567	12.3
Asia Retail Markets	429	408	5.1	1,642	1,418	15.8
Global Surety	418	272	53.7	1,525	1,287	18.5
Other Global Risk Solutions	144	(306)	NM	484	444	9.0
Total NWP	$4,294	$3,662	17.3%	$16,800	$16,267	3.3%
Foreign exchange effect on growth			1.1			(0.3)
NWP growth excluding foreign exchange[1]			16.2%			3.6%

1 Determined by assuming constant foreign exchange rates between periods.
NM = Not Meaningful

Global Risk Solutions NWP by line of business was as follows:

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Specialty insurance[1]	$1,046	$1,105	(5.3%)	$4,091	$4,204	(2.7%)
Reinsurance	526	458	14.8	2,883	2,567	12.3
Commercial property	603	427	41.2	2,169	1,886	15.0
Casualty[2]	621	785	(20.9)	1,914	2,391	(19.9)
Surety	418	272	53.7	1,525	1,287	18.5
Workers Compensation	275	287	(4.2)	1,277	1,303	(2.0)
Private passenger automobile	301	305	(1.3)	1,069	942	13.5
Commercial automobile	250	219	14.2	884	785	12.6
Inland marine[3]	146	149	(2.0)	592	593	(0.2)
Commercial multiple-peril	32	37	(13.5)	120	127	(5.5)
Other reinsurance	(3)	(449)	(99.3)	(110)	(140)	(21.4)
Other[4]	79	67	17.9	386	322	19.9
Total NWP	$4,294	$3,662	17.3%	$16,800	$16,267	3.3%

1 Includes marine, energy, construction, aviation, warranty and indemnity, directors and officers, errors and omissions, trade credit, contingent lines and other.
2 Primarily includes general liability, excess & umbrella and environmental lines of business.
3 Includes handset protection coverage for lost or damaged wireless devices.
4 Primarily includes life & health, as well as other small lines of business.

Fourth Quarter Results:

NWP for the three months ended December 31, 2023, was $4.294 billion, an increase of $632 million over the same period in 2022.

The increase primarily reflects:
- Lower ceded premium due to a premium adjustment on the casualty quota share and excess of loss treaties in Q4 2022 that did not recur in Q4 2023
- Renewal rate increases across most lines of business, totaling 11.9% excluding ARM
- Growth in lines with project-based business, particularly surety lines, including an intercompany reinsurance transaction
- Growth in lines with inflation-sensitive exposure bases
- Favorable reinstatement premium

Partially offset by:
- Higher cessions due to more coverage being purchased
- Lower loss portfolio transfer premium within casualty

Additionally, internal reinsurance changes in 2023 created offsetting differences amongst segments and lines.

Year-to-date Results:

NWP for the twelve months ended December 31, 2023, was $16.800 billion, an increase of $533 million over the same period in 2022.

The increase primarily reflects:
- Renewal rate increases across most lines of business, totaling 9.8% excluding ARM
- Lower ceded premium due to a premium adjustment on the casualty quota share and excess of loss treaties in 2022 that did not recur in 2023
- Growth in lines with inflation-sensitive exposure bases
- Growth in lines with project-based business, particularly surety lines
- The acquisition of AmGeneral on July 28, 2022, which resulted in a full year of premium in 2023 versus seven months of premium in 2022 within ARM

Partially offset by:

- Higher cessions due to an increase in reinsurance costs and more coverage being purchased
- De-risking of the portfolio in unprofitable and economically challenging products
- Lower new business premium
- Lower loss portfolio transfer premium within casualty

Additionally, internal reinsurance changes in 2023 created offsetting differences amongst segments and lines.

Results of Operations – Global Risk Solutions

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Revenues	$4,805	$4,378	9.8%	$17,940	$17,175	4.5%
Underlying PTOI	459	410	12.0	2,114	1,987	6.4
Catastrophes	(117)	115	NM	(719)	(1,095)	(34.3)
Net incurred losses attributable to prior years[1]	191	87	119.5	266	103	158.3
Current accident year re-estimation[2]	(60)	-	NM	-	-	-
Pre-tax operating income	$473	$612	(22.7%)	$1,661	$995	66.9%

1 Net of earned premium and reinstatement premium attributable to prior years of $300 million and $344 million for the three and twelve months ended December 31, 2023, and $284 million and $436 million for the same periods in 2022.

2 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2023.

NM = Not Meaningful

Fourth Quarter Results:

Pre-tax operating income for the three months ended December 31, 2023 was $473 million, a decrease of $139 million from the same period in 2022. Underlying pre-tax operating income for the three months ended December 31, 2023 was $459 million, an increase of $49 million over the same period in 2022. The increase in underlying pre-tax operating income primarily reflects:

- Profit margin on higher earned premium
- Higher net investment income

Partially offset by:

- Higher expenses due to an increase in employee related costs
- Unfavorable current year loss activity

Including the impact of catastrophes, net incurred losses attributable to prior years and current accident year re-estimation, the change in pre-tax operating income primarily reflects:

- Higher current year catastrophe losses due to favorable loss development in Q4 2022 that did not recur, primarily driven by Hurricane Ian
- Unfavorable current accident year re-estimation due to resetting of the current accident year to a higher baseline primarily within liability lines

Partially offset by:

- Favorable prior accident year activity due to greater reserve releases in Q4 2023
- The changes to underlying PTOI mentioned above

Revenues for the three months ended December 31, 2023 were $4.805 billion, an increase of $427 million over the same period in 2022. The increase primarily reflects:

- The changes to NWP mentioned above
- Higher net investment income

Claims, benefits and expenses for the three months ended December 31, 2023 were $4.332 billion, an increase of $585 million over the same period in 2022. The increase primarily reflects:

- The loss and commissions adjustment on the casualty quota share and excess of loss treaties in Q4 2022 that did not recur
- Higher current year catastrophe losses due to favorable loss development in Q4 2022 that did not recur, primarily driven by Hurricane Ian
- Higher expenses due to an increase in employee related costs
- Unfavorable current year loss activity

Partially offset by:
- Favorable prior accident year activity due to greater reserve releases in Q4 2023

Year-to-date Results:

Pre-tax operating income for the twelve months ended December 31, 2023 was $1.661 billion, an increase of $666 million over the same period in 2022. Underlying pre-tax operating income for the twelve months ended December 31, 2023 was $2.114 billion, an increase of $127 million over the same period in 2022. The acquisition of AmGeneral on July 28, 2022 resulted in a full year of additional loss exposure, earned premium, and expense in 2023 versus seven months of loss exposure, earned premium, and expense in 2022 within ARM. The remaining change in underlying pre-tax operating income primarily reflects:
- Profit margin on higher earned premium
- Lower commissions
- Higher net investment income

Partially offset by:
- Higher expenses due to an increase in employee related costs
- Unfavorable foreign exchange
- A worker's compensation surplus refund from the state of Minnesota in 2022 that did not recur

Including the impact of catastrophes and net incurred losses attributable to prior years, the change in pre-tax operating income primarily reflects:
- Lower current year catastrophe losses
- Favorable prior accident year activity due to greater releases in 2023
- The changes to underlying PTOI mentioned above

Revenues for the twelve months ended December 31, 2023 were $17.940 billion, an increase of $765 million over the same period in 2022. The increase primarily reflects:
- The changes to NWP mentioned above
- Higher net investment income

Claims, benefits and expenses for the twelve months ended December 31, 2023 were $16.234 billion, an increase of $65 million over the same period in 2022. The increase primarily reflects:
- The loss and commissions adjustment on the casualty quota share and excess of loss treaties in 2022 that did not recur
- Higher expenses due to an increase in employee related costs

Partially offset by:
- Lower current year catastrophe losses
- Favorable prior accident year activity due to greater releases in 2023
- Lower commissions

GLOBAL RISK SOLUTIONS	Three Months Ended December 31, 2023	2022	Change (Points)	Twelve Months Ended December 31, 2023	2022	Change (Points)
Combined Ratio						
Claims and claim adjustment expense ratio	62.6%	62.1%	0.5	60.8%	61.3%	(0.5)
Underwriting expense ratio	31.0	31.2	(0.2)	31.4	31.0	0.4
Dividend ratio	0.1	0.1	-	0.1	0.1	-
Underlying combined ratio	93.7	93.4	0.3	92.3	92.4	(0.1)
Catastrophes	2.8	(3.1)	5.9	4.4	7.1	(2.7)
Net incurred losses attributable to prior years[1]	(4.0)	(1.1)	(2.9)	(1.4)	(0.5)	(0.9)
Current accident year re-estimation[2]	1.4	-	1.4	-	-	-
Total combined ratio	93.9%	89.2%	4.7	95.3%	99.0%	(3.7)

1 Net of earned premium and reinstatement premium attributable to prior years.
2 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2023.

Fourth Quarter Results:

The Global Risk Solutions underlying combined ratio for the three months ended December 31, 2023 was 93.7%, an increase of 0.3 points over the same period in 2022. The underlying combined ratio includes higher commissions and losses mostly offset by favorable earned premium due to the adjustment on the casualty quota share and excess of loss treaties in Q4 2022. Excluding that adjustment, the increase primarily reflects:

- Unfavorable current year loss activity
- Higher expenses due to an increase in employee related costs

Including the impact of catastrophes, net incurred losses attributable to prior years, and current accident year re-estimation, the total combined ratio for the three months ended December 31, 2023 was 93.9%, an increase of 4.7 points over the same period in 2022. The increase primarily reflects:

- Higher current year catastrophe losses due favorable loss development in Q4 2022 that did not recur, primarily driven by Hurricane Ian
- Unfavorable current accident year re-estimation due to resetting of the current accident year to a higher baseline primarily within liability lines
- The changes to the underlying combined ratio mentioned above

Partially offset by:

- Favorable prior accident year activity due to greater reserve releases in Q4 2023

Year-to-date Results:

The Global Risk Solutions underlying combined ratio for the twelve months ended December 31, 2023 was 92.3%, a decrease of 0.1 points from the same period in 2022. The decrease primarily reflects:

- Favorable current year loss activity due to rate and higher earned premium
- Lower commissions

Mostly offset by:

- Higher expenses due to an increase in employee related costs

Including the impact of catastrophes and net incurred losses attributable to prior years, the total combined ratio for the twelve months ended December 31, 2023 was 95.3%, a decrease of 3.7 points from the same period in 2022. The decrease primarily reflects:

- Lower current year catastrophe losses
- Favorable prior accident year activity due to greater releases in 2023

CORPORATE AND OTHER

Overview – Corporate and Other

Corporate and Other includes the following significant items:

- Certain internal discontinued operations, which comprises: the run-off of certain commercial lines business, the run-off of the California workers compensation business of Golden Eagle Insurance Corporation and certain distribution channels related to Prudential Property and Casualty Insurance Company, Prudential General Insurance Company and Prudential Commercial Insurance Company (together, "PruPac") and Liberty Re annuity business.

- Cessions related to certain retroactive reinsurance agreements, including the NICO Reinsurance Transaction and NICO Casualty Reinsurance Transaction, which are described further in "Reinsurance".

- Effective January 1, 2015, Corporate began assuming certain pre-2014 voluntary and involuntary workers compensation claims from the businesses. The covered business materially aligns with the workers compensation business covered by the retroactive reinsurance agreement defined as the NICO Reinsurance Transaction, which is described further in "Reinsurance".

- Effective January 1, 2019, Corporate began assuming certain US workers compensation, commercial auto, and general liability claims from the businesses. The covered business materially aligns with the casualty business covered by the retroactive reinsurance agreement defined as the NICO Casualty Reinsurance Transaction, which is described further in "Reinsurance," with two notable differences: 1) the internal treaty attaches at held reserves at inception and does not include a loss corridor, and 2) the internal treaty includes umbrella claims related to Business Lines within US Retail Markets.

- Effective September 30, 2020, Corporate began assuming certain pre-2018 construction defect liabilities from Global Risk Solutions.

- Reserve changes on certain other casualty and property lines of business.

- Interest expense on the Company's outstanding debt.

- Certain risks of its businesses that the Company reinsures as part of its risk management program, post-2023 risks on US homeowners business covered by externally ceded homeowners' quota share reinsurance treaties, and other externally ceded catastrophe and non-catastrophe reinsurance treaties which are described further in "Reinsurance".

- The Company reports its written premium on workers compensation contracts on the "booked as billed" method. The businesses report workers compensation written premium on the "booked at inception" method. Corporate and Other results reflect the difference between these two methods.

- Costs associated with certain long-term compensation plans and other corporate costs not fully allocated to the businesses.

- Property and casualty operations' investment income is allocated to the businesses based on planned ordinary investment income returns by investment category. The difference between allocated net investment income and actual net investment income is included in Corporate and Other.

- Investment-related realized gains (losses) and real estate impairments.

- Income related to limited partnership investments.

- Fee and other revenues include revenues from certain non-insurance subsidiaries, including Liberty Energy, Liberty Metals and Mining and Liberty Mutual Agriculture and Timber. These subsidiaries generate revenue from the production and sale of oil, gas, and other natural resources and related limited partnership investments.

Corporate and Other NWP by line of business was as follows:

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Reinsurance, net	($33)	($171)	(80.7%)	($181)	($759)	(76.2%)
Workers compensation[1]	3	20	(85.0)	1	36	(97.2)
Other	(3)	27	NM	3	5	(40.0)
Total NWP	($33)	($124)	(73.4%)	($177)	($718)	(75.3%)

1 Booked as billed adjustment.
NM = Not Meaningful

Fourth Quarter Results:

NWP for the three months ended December 31, 2023 was ($33) million, an increase of $91 million over the same period in 2022. The increase primarily reflects:

- New internal reinsurance placement

Partially offset by:

- The workers compensation booked as billed adjustment

Year-to-date Results:

NWP for the twelve months ended December 31, 2023 was ($177) million, an increase of $541 million over the same period in 2022. The increase primarily reflects:

- New internal reinsurance placement
- Higher assumed on internal reinsurance treaties

Partially offset by:

- Higher ceded premium on external reinsurance treaties
- The workers compensation booked as billed adjustment

Results of Operations – Corporate and Other

	Three Months Ended December 31,			Twelve Months Ended December 31,		
$ in Millions	**2023**	**2022**	**Change**	**2023**	**2022**	**Change**
Revenues	($35)	$118	NM	$670	$134	NM
Underlying pre-tax operating income (loss) before limited partnerships income	1	(26)	NM	119	(310)	NM
Catastrophes	2	(19)	NM	68	77	(11.7)
Net incurred losses attributable to prior years:						
-Asbestos and environmental[1]	(110)	(96)	14.6	(110)	(96)	14.6
-All other[1,2]	78	18	NM	55	64	(14.1)
Pre-tax operating (loss) income before limited partnerships income	(29)	(123)	(76.4)	132	(265)	NM
Limited partnership income[3]	4	144	(97.2)	89	704	(87.4)
Pre-tax operating (loss) income	($25)	$21	NM	$221	$439	(49.7%)

1 Asbestos and environmental is gross of the NICO Reinsurance Transaction, which is described further in "Reinsurance".
2 Net of earned premium attributable to prior years of zero for the three and twelve months ended December 31, 2023 and 2022.

3 Partnerships, LLC and other equity method income includes LP, LLC and other equity method income within net investment income in the accompanying Consolidated Statements of Operations and revenue and expenses from direct investments in natural resources.
NM = Not Meaningful

Fourth Quarter Results:

Revenues for the three months ended December 31, 2023 were ($35) million, versus $118 million for the same period in 2022. The major components of revenues are net premium earned, net investment income (including limited partnerships income), net realized gains (losses), and fee and other revenues.

Pre-tax operating (loss) income for the three months ended December 31, 2023 was ($25) million, versus $21 million from the same period in 2022.

Underlying pre-tax operating income (loss) before limited partnerships income was $1 million, versus ($26) million for the same period in 2022. The increase in underlying pre-tax operating income primarily reflects:

- Higher net investment income

Partially offset by:

- Higher employee related costs

Including the impact of catastrophes, net incurred losses attributable to prior years, and limited partnerships income, the decrease in pre-tax operating income primarily reflects:

- Lower limited partnerships income

Partially offset by:

- Less unfavorable incurred losses attributable to prior years versus the prior period

Net premium earned for the three months ended December 31, 2023 was ($124) million, an increase of $66 million over the same period in 2022.

Net investment income including limited partnerships income for the three months ended December 31, 2023 was $336 million, a decrease of $21 million from the same period in 2022. The decrease primarily reflects:

- Lower valuations across the limited partnership investments, primarily driven by private capital and energy investments.

Partially offset by:

- Higher fixed maturity yields

Net realized losses for the three months ended December 31, 2023 were ($268) million, an increase of $200 million over the same period in 2022. The net realized losses in the current period were primarily impacted by:

- $142 million of net losses on fixed maturity sales.
- $80 million of net losses on derivatives.
- $60 million of impairments.
- $33 million of net losses on equity and other sales.

Partially offsetting losses was:

- $19 million net change in equity unrealized gains.
- $28 million net change in unrealized gains on energy holdings.

The prior period was impacted by:

- $70 million of net losses on fixed maturity sales.
- $24 million of impairments.
- $20 million of net change in unrealized losses on energy holdings.

Partially offset by:

- $28 million gains of natural resource investments.

Claims, benefits, and expenses for the three months ended December 31, 2023 were $258 million, an increase of $93 million over the same period in 2022. The increase primarily reflects:

- Higher employee related costs

Partially offset by:

- Favorable reinsurance results

Year-to-date Results:

Revenues for the twelve months ended December 31, 2023 were $670 million, an increase of $536 million over the same period in 2022. The major components of revenues are net premium earned, net investment income (including limited partnerships income), net realized gains (losses), and fee and other revenues.

Pre-tax operating income for the twelve months ended December 31, 2023 was $221 million, a decrease of $218 million from the same period in 2022.

Underlying pre-tax operating income (loss) before limited partnerships income was $119 versus ($310) million for the same period in 2022. The increase in underlying pre-tax operating income primarily reflects:

- Higher net investment income

Partially offset by:

- Higher employee related costs

Including the impact of catastrophes, net incurred losses attributable to prior years, and limited partnerships income, the decrease in pre-tax operating income primarily reflects:

- Lower limited partnerships income

Net premium earned for the twelve months ended December 31, 2023 was ($244) million, a decrease of $212 million from the same period in 2022.

Net investment income including limited partnerships income for the twelve months ended December 31, 2023 was $1.177 billion, a decrease of $4 million from the same period in 2022. The decrease primarily reflects:

- Lower valuations across the limited partnership investments, primarily driven by private capital investments.

Partially offset by:

- Higher fixed maturity yields

Net realized losses for the twelve months ended December 31, 2023 were ($339) million, a decrease of $326 million from the same period in 2022. The net realized losses in the current period were primarily impacted by:

- $333 million net losses on fixed maturities sales.
- $78 million of impairments.
- $17 million net change in derivative and other unrealized losses.

Partially offsetting losses were:

- $73 million net change in unrealized gains on energy holdings.
- $30 million net gains on derivatives sales.
- $29 million net change in equity unrealized gains.

The prior period was impacted by:

- $454 million net change in equity unrealized losses.
- $228 million of net losses on fixed maturity sales.
- $90 million of impairments.

Partially offset by:

- $67 million net change in unrealized on energy holdings.
- $103 million gains on natural resource investments.
- $38 million net gains on derivative investments.

Claims, benefits, and expenses for the twelve months ended December 31, 2023 were $788 million, an increase of $428 million over the same period in 2022. The increase primarily reflects:

- Higher employee related costs

Partially offset by:

- Favorable reinsurance results

INVESTMENTS

General

The Company's investment strategy seeks long-term returns through disciplined security selection, portfolio diversity and an integrated approach to risk management. The Company selects and monitors investments to balance the goals of safety, stability, liquidity, growth and after-tax total return with its need to comply with regulatory investment requirements. A relatively safe and stable income stream is achieved by maintaining a broadly-based portfolio of investment grade bonds. These holdings are supplemented by investments in additional asset types with the objective of further enhancing the portfolio's diversification and expected returns. These additional asset types include commercial mortgages and other real estate financing investments, non-investment grade bonds, including leveraged loans, common and preferred stock, private equity and direct investments in natural resource ventures. Risk management is accomplished through asset liability management (including both interest rate risk and foreign currency risk), diversification, credit limits and a careful analytical review of each investment decision.

The Company's investment policy and strategy are reviewed and approved by the Investment Committee of its Board of Directors, which meets on a regular basis to review and consider investment activities, tactics and new investment classes. In addition, the Company predominantly uses a subsidiary investment advisor for managing and administering the investment portfolios of its domestic and foreign insurance operations.

Invested Assets (including cash and cash equivalents)

The following table summarizes the Company's invested assets by asset category as of December 31, 2023 and December 31, 2022:

Invested Assets by Type	**As of December 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Carrying Value**	**% of Total**	**Carrying Value**	**% of Total**
Fixed maturities, available for sale, at fair value	$68,901	68.1%	$62,860	65.6%
Equity securities	996	1.0	1,099	1.1
Limited partnership investments	13,764	13.6	12,323	12.9
Mortgage loans	3,348	3.3	3,632	3.8
Short-term investments	340	0.3	418	0.4
Other investments	4,375	4.3	3,059	3.2
Cash and cash equivalents	9,518	9.4	12,531	13.0
Total invested assets	$101,242	100.0%	$95,922	100%

Total invested assets as of December 31, 2023 were $101.242 billion, an increase of $5.320 billion or 5.5% over December 31, 2022. The increase was primarily related to an increase in fixed maturities, limited partnership investments and other investments, partially offset by a decrease in cash and cash equivalents and mortgage loans.

Fixed maturities as of December 31, 2023 were $68.901 billion, an increase of $6.041 billion or 9.6% over December 31, 2022. The increase was primarily related to additional investments in US treasuries and corporate bonds, partially offset by unfavorable impact of increase in treasury rates. As of December 31, 2023, included in fixed maturities are commitments to purchase various residential mortgage-backed securities at a cost and fair value of $20 million and $21 million, respectively.

Equity securities as of December 31, 2023 were $996 million ($996 million common stock) versus $1.099 billion ($1.098 billion common stock and $1 million preferred stock), a decrease of $103 million or 9.4% from December 31, 2022.

The following table summarizes the Company's limited partnership investments as of December 31, 2023 and December 31, 2022:

Limited partnership investments	**As of December 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Carrying Value**	**% of Total**	**Carrying Value**	**% of Total**
Traditional private equity	$5,644	41.0%	$5,439	44.1%
Real estate	3,399	24.7	3,050	24.8
Private credit	1,877	13.6	1,512	12.3
Natural resources – Energy	753	5.5	837	6.8
Natural resources – Other[1]	1,599	11.6	912	7.4
Other	492	3.6	573	4.6
Total limited partnership investments[2]	$13,764	100%	$12,323	100%

1 Included in Natural Resources – Other is $20 million and $24 million of investments in agriculture and timber as of December 31, 2023 and December 31, 2022, and $1.578 billion and $889 million of investments in energy transition and infrastructure as of December 31, 2023 and December 31, 2022, respectively.

2 Included in total limited partnership investments are $556 million and $518 million of limited partnership investments where the Company has elected fair value option of as of December 31, 2023 and December 31, 2022, respectively.

Mortgage loans as of December 31, 2023, were $3.348 billion (net of $43 million of mortgage loan allowances or 1.3% of the outstanding loan portfolio), a decrease of $284 million or 7.8% from December 31, 2022. The decrease is primarily driven by $1.093 billion in principal reductions, partially offset by $843 million in funding. The entire mortgage loan portfolio is US-based. The number of loans in the portfolio decreased from 2,716 at December 31, 2022 to 2,431 at December 31, 2023.

Cash and cash equivalents as of December 31, 2023 were $9.518 billion, a decrease of $3.013 billion or 24.0% from December 31, 2022. The decrease primarily reflects:

- Decrease in cash from investing activities
  Partially offset by:
- Increase in cash from operations.

The following tables summarize the Company's available for sale portfolio by security type as of December 31, 2023 and December 31, 2022:

	As of December 31, 2023				
$ in Millions	**Amortized Cost**	**Credit Allowance**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Fair Value**
US government and agency securities	$9,294	$-	$22	($583)	$8,733
Residential MBS [1]	6,473	-	20	(524)	5,969
Commercial MBS	5,132	-	35	(268)	4,899
Other MBS and ABS [2]	5,162	-	15	(261)	4,916
US state and municipal	6,619	-	43	(362)	6,300
Corporate and other	34,978	(37)	301	(2,039)	33,203
Foreign government securities	4,923	-	30	(225)	4,728
Redeemable Preferred Stock	148	-	5	-	153
Total securities available for sale	$72,729	($37)	$471	($4,262)	$68,901

1 Mortgage-backed securities ("MBS")

2 Asset-backed securities ("ABS")

	As of December 31, 2022				
$ in Millions	Amortized Cost	Credit Allowance	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
US government and agency securities	$8,848	$-	$2	($777)	$8,073
Residential MBS [1]	6,547	-	5	(605)	5,947
Commercial MBS	4,457	-	10	(310)	4,157
Other MBS and ABS [2]	4,911	-	3	(395)	4,519
US state and municipal	7,698	-	19	(586)	7,131
Corporate and other	32,132	-	36	(3,389)	28,779
Foreign government securities	4,495	-	3	(324)	4,174
Redeemable Preferred Stock	79	-	1	-	80
Total securities available for sale	$69,167	$-	$79	($6,386)	$62,860

1 Mortgage-backed securities ("MBS")
2 Asset-backed securities ("ABS")

The following table summarizes the Company's mortgage and asset-backed fixed maturity portfolio by credit quality as of December 31, 2023:

Mortgage & Asset-Backed Fixed Maturities by Credit Quality[1]	As of December 31, 2023							
$ in Millions	AAA	AA	A	BBB	BB	B or Lower	Total	% of Total
Residential MBS	$5,719	$248	$-	$-	$-	$2	$5,969	37.9%
Commercial MBS	4,211	196	222	152	118	-	4,899	31.0
Other MBS and ABS	2,314	643	909	685	297	68	4,916	31.1
Total	$12,244	$1,087	$1,131	$837	$415	$70	$15,784	100%
% of Total	77.6%	6.9%	7.2%	5.3%	2.6%	0.4%	100%	

1 For purposes of this disclosure, credit quality is primarily based upon average credit ratings.

Approximately 63.8% of the Company's mortgage and asset-backed fixed maturity portfolio is explicitly backed by the US government (SBA and GNMA) or by government-sponsored entities (FNMA and FHLMC). Approximately 77.6% of the holdings are rated AAA. Included in the commercial mortgage-backed securities at December 31, 2023, were $3.951 billion in Agency CMBS and $948 million Non-agency CMBS. Included in the Other MBS and ABS at December 31, 2023 were $357 million AAA rated SBA Loans. The commercial mortgage-backed securities portfolio is well diversified and of high quality with approximately 86.0% rated AAA.

The following table summarizes the Company's US state and municipal fixed maturity portfolio of securities which are obligations of states, municipalities, and political subdivisions (collectively referred to as US state and municipal bonds) by credit quality as of December 31, 2023 and December 31, 2022:

US State and Municipal by Credit Quality[1]	As of December 31, 2023			As of December 31, 2022		
$ in Millions	Fair Value	% of Total	Average Credit Rating	Fair Value	% of Total	Average Credit Rating
State general obligation	$1,173	18.6%	AA	$1,489	20.9%	AA
Local general obligation	971	15.4	AA	1,234	17.3	AA
Revenue	3,991	63.4	A	4,278	60.0	A
Pre-refunded	165	2.6	AAA	130	1.8	AAA
Total US state and municipal	$6,300	100%	AA	$7,131	100%	AA

1 For purposes of this disclosure, credit quality is primarily based upon average credit ratings.

The municipal bond portfolio (taxable and tax-exempt) includes general obligation and revenue bonds issued by states, cities, counties, school districts, hospitals, educational institutions, and similar issuers. Included in the municipal bond portfolio at December 31, 2023 and December 31, 2022 were $165 million and $130 million, respectively, of pre-refunded bonds, which are bonds for which states or municipalities have established irrevocable trusts, which were created to satisfy their responsibility for payments of principal and interest.

The following table summarizes the Company's allocation of fixed maturities by credit quality as of December 31, 2023 and December 31, 2022:

Fixed Maturities by Credit Quality[1]	**As of December 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Fair Value**	**% of Total**	**Fair Value**	**% of Total**
AAA	$23,722	34.4%	$21,839	34.7%
AA+, AA, AA-	8,062	11.8	8,149	13.0
A+, A, A-	17,089	24.9	14,198	22.6
BBB+, BBB, BBB-	15,235	22.0	13,984	22.2
Total investment grade	64,108	93.1	58,170	92.5
BB+, BB, BB-	1,953	2.8	2,182	3.5
B+, B, B-	2,301	3.3	2,076	3.3
CCC or lower	301	0.4	260	0.4
Unrated[2]	238	0.4	172	0.3
Total below-investment grade	4,793	6.9	4,690	7.5
Total fixed maturities	$68,901	100.0%	$62,860	100.0%

1 For purposes of this disclosure, credit quality is primarily based upon average credit ratings.
2 Includes bank loans acquired as part of the Ironshore acquisition and externally managed convertible securities.

The Company's holdings of below investment grade securities primarily consist of an actively managed diversified portfolio of high yield securities and leveraged loans within the domestic insurance portfolios and investments in emerging market sovereign and corporate debt primarily in support of the Company's international insurance operations. Overall, the average credit quality rating stands at A as of December 31, 2023.

The following table summarizes available for sale fixed maturity securities by contractual maturity at December 31, 2023 and December 31, 2022. Actual maturities may differ from contractual maturities because certain securities may be called or prepaid with or without call or prepayment penalties. Due to the potential for prepayment on MBS and ABS, they are not categorized by contractual maturity.

Fixed Maturities by Maturity Date	**As of December 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Fair Value**	**% of Total**	**Fair Value**	**% of Total**
One year or less	$2,559	3.7%	$1,708	2.7%
Over one year through five years	24,949	36.2	20,271	32.2
Over five years through ten years	18,227	26.5	18,758	29.9
Over ten years	7,382	10.7	7,500	11.9
MBS and ABS	15,784	22.9	14,623	23.3
Total fixed maturities	$68,901	100.0%	$62,860	100.0%

During 2023, after taking into consideration changes in investment opportunities and its view of the current and prospective business and economic environment, the Company has made only minor adjustments to the average duration of its investment portfolio. The average duration of the investment portfolio as of December 31, 2023 was 4.0 years versus 4.2 years as of December 31,2022.

The following tables summarize the Company's gross unrealized losses and fair value of fixed income securities by the length of time that individual securities have been in a continuous unrealized loss position as of December 31, 2023 and December 31, 2022 that are not deemed to be other-than-temporarily impaired:

	As of December 31, 2023			
$ in Millions	**Less Than 12 Months**		**12 Months or Longer**	
Unrealized Losses & Fair Value by Security Type	**Unrealized Losses**	**Fair Value of Investments with Unrealized Losses**	**Unrealized Losses**	**Fair Value of Investments with Unrealized Losses**
US Government and agency securities	($43)	$803	($540)	$6,772
Residential MBS	(52)	488	(472)	4,723
Commercial MBS	(10)	172	(258)	3,789
Other MBS and ABS	(2)	199	(259)	3,853
US state and municipal	(5)	351	(357)	4,118
Corporate and other	(269)	3,258	(1,770)	19,816
Foreign government securities	(8)	562	(217)	2,890
Total securities available for sale	($389)	$5,833	($3,873)	$45,961

	As of December 31, 2022			
$ in Millions	**Less Than 12 Months**		**12 Months or Longer**	
Unrealized Losses & Fair Value by Security Type	**Unrealized Losses**	**Fair Value of Investments with Unrealized Losses**	**Unrealized Losses**	**Fair Value of Investments with Unrealized Losses**
US Government and agency securities	($448)	$5,338	($329)	$2,462
Residential MBS	(431)	4,569	(174)	1,165
Commercial MBS	(222)	3,513	(88)	584
Other MBS and ABS	(139)	1,974	(257)	2,475
US state and municipal	(284)	4,374	(302)	1,664
Corporate and other	(1,610)	17,987	(1,778)	9,163
Foreign government securities	(97)	2,079	(227)	1,821
Total securities available for sale	($3,231)	$39,834	($3,155)	$19,334

Unrealized losses for fixed maturity securities decreased from $6.386 billion as of December 31, 2022 to $4.262 billion as of December 31, 2023. The Company monitors the difference between the amortized cost and estimated fair value of fixed maturity securities to ascertain whether declines in value are temporary in nature. The Company currently does not have the intent to sell these securities and has determined it is not more likely than not that it would be required to sell these fixed maturity securities before they recover their fair value. The Company adopted ASC 326 on January 1, 2023. In accordance with ASC 326, if the Company does not intend to sell the security and it is not more likely than not that the Company will be required to sell the security before recovery of its amortized cost basis, the Company utilizes both qualitative and quantitative inputs to determine if a credit loss is expected.

The following tables summarize the Company's issuer and sector exposure[1] as of December 31, 2023:

Top 10 Issuers	**As of December 31, 2023**				
$ in Millions	**Fixed Maturity**	**Equity**	**Short-Term**	**Total Exposure**	**% of Invested Assets**
Bank of America Corp	$821	$-	$-	$821	0.81%
Morgan Stanley	667	-	-	667	0.66
Citigroup Inc	662	-	-	662	0.65
Goldman Sachs Group Inc	638	-	-	638	0.63
JP Morgan Chase & Co	636	-	-	636	0.63
Government of Canada	594	-	4	598	0.59
Government of United Kingdom	564	-	-	564	0.56
Wells Fargo & Co	499	-	-	499	0.49
Government of Australia	485	-	-	485	0.48
HSBC Holdings Plc	347	-	-	347	0.34
Total	$5,913	$-	$4	$5,917	5.84%

Top 10 Sectors	**As of December 31, 2023**				
$ in Millions	**Fixed Maturity**	**Equity**	**Short-Term**	**Total Exposure**	**% of Invested Assets**
Banking	$8,826	$4	$242	$9,072	8.96%
Real Estate	717	3,408	-	4,125	4.07
Foreign Government	3,045	-	24	3,069	3.03
Technology	1,997	519	-	2,516	2.49
Electric Utility	1,834	627	-	2,461	2.43
Insurance	1,662	91	-	1,753	1.73
Healthcare	1,171	435	-	1,606	1.59
Independent Energy	515	753	-	1,268	1.25
Food and Beverage	1,215	45	-	1,260	1.24
US Municipal - State & US Territory	1,241	-	-	1,241	1.23
Total	$22,223	$5,882	$266	$28,371	28.02%

1 Tables exclude US Treasury and agency securities, mortgage-backed securities, ETFs, and municipal obligations that are pre-refunded or escrowed to maturity.

As of December 31, 2023, investments in the energy sector accounted for $2.991 billion or 3.0% of total invested assets. The energy sector is comprised of investments in the following sub-sectors: independent energy, integrated energy, midstream, oil field services, and refining (*classification per Bloomberg Barclays Industry Groups*). Energy investments consist of investment grade bonds of $1.851 billion, bonds that were rated below investment grade of $360 million, publicly traded equity securities of $2 million, and natural resources partnerships and other equity method investments of $778 million. Agriculture and timber investments consist of natural resource partnerships of $20 million. In addition, the Company has direct investments in agriculture and timber of $203 million and oil and gas wells of $2 million which are included in other assets on the Consolidated Balance Sheets.

The following table summarizes the Company's unfunded commitments as of December 31, 2023 and December 31, 2022:

Unfunded Commitments	**As of December 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Total**	**% of Total**	**Total**	**% of Total**
Traditional private equity	$2,566	27.0%	$2,333	27.3%
Real Estate	2,698	28.3	3,029	35.5
Private Credit	2,945	30.9	1,867	21.9
Natural resources – Energy	16	0.2	33	0.4
Natural resources – Energy transition and infrastructure	1,192	12.5	1,175	13.7
Natural resources – Timber and agriculture	18	0.2	24	0.3
Other	82	0.9	80	0.9
Total unfunded commitments	$9,517	100.0%	$8,541	100.0%

Unfunded commitments as of December 31, 2023 were $9.517 billion, an increase of $976 million over December 31, 2022. The increase primarily reflects new commitments net of contributions related to private credit and traditional private equity. The unfunded energy investment commitments at December 31, 2023 and December 31, 2022 of $16 million and $33 million, respectively, related to energy partnerships.

The Company holds unfunded commitments related to commercial mortgage loans. The liability for expected credit losses related to these unfunded commitments is reported in Other Liabilities and is measured in a manner consistent with the approach of the funded mortgage loan portfolio. As of December 31, 2023 the amount of the liability for expected credit losses of unfunded commitments was $28 million.

LIQUIDITY AND CAPITAL RESOURCES

The liquidity requirements of the insurance subsidiaries are met primarily by funds generated from operations, asset maturities and income received on investments. Cash provided from these sources is used primarily for claims, claim adjustment expenses and operating expenses (underwriting and corporate benefit costs). There are certain cash outflows such as catastrophes and continued settlements of asbestos reserves that are unpredictable in nature and could create increased liquidity needs. The Company believes that the insurance subsidiaries' future business liquidity needs will be met from all the above sources. However, the Company maintains back up borrowing facilities as an additional contingent source of funds. These include:

LMIC, Peerless Insurance Company ("PIC"), Liberty Mutual Fire Insurance Company ("LMFIC"), Employers Insurance Company of Wausau ("EICOW"), Safeco Insurance Company of America ("SICOA"), Ohio Casualty Insurance Company ("OCIC") are members of the Federal Home Loan Bank ("FHLB"). The Company has $300 million of Federal Home Loan Bank borrowings with maturity dates through 2032. As of December 31, 2023, the outstanding Federal Home Loan Bank borrowings are fully collateralized.

SAM, State Auto Property & Casualty Insurance Company ("SPC") and Rockhill Insurance Company ("RIC") memberships were cancelled on August 25, 2023. Final cancellation of FHLB memberships have a five-year waiting period, so final membership expiration dates are August 25, 2028. Ironshore Indemnity Insurance ("III") and Ironshore Specialty Insurance Company ("ISIC") memberships were cancelled on February 24th and 25th, 2020, respectively. III's five-year waiting period was waived by FHLB, so final membership cancellation was effective on February 9, 2022. For ISIC, the effective date of its final membership cancellation will be February 25, 2025.

Net cash flows are generally invested in marketable securities while keeping a certain amount in cash and short-term investments to meet unpredictable cash obligations. The Company monitors the duration of these investments, and purchases and sales are executed with the objective of having adequate cash available to satisfy its maturing liabilities. As the Company's investment strategy focuses on overall asset and liability durations, and not specific cash flows, asset sales may be required to satisfy obligations or rebalance asset portfolios. The Company's invested assets as of December 31, 2023 (including cash and cash equivalents) totaled **$**101.242 billion.

Debt outstanding as of December 31, 2023 and December 31, 2022 was as follows:

Short-term debt:

$ in Millions	**As of December 31, 2023**	**As of December 31, 2022**
4.25% Notes, due 2023[1]	$-	$547
1.75% €500 Million Notes, due 2024[1]	552	-
Total short-term debt	$552	$547

(1) Short-term debt is the current maturities of the 4.25% Notes, due June 15, 2023 and the 1.75% Notes, due March 27, 2024.

Long-term debt:

$ in Millions	As of December 31, 2023	As of December 31, 2022
1.75% €500 Million Notes, due 2024[1]	$-	$533
8.50% Surplus notes, due 2025	140	140
2.75% €750 Million Notes, due 2026	828	801
7.875% Surplus notes, due 2026	227	227
7.625% Notes, due 2028	3	3
4.569% Notes, due 2029	1,000	1,000
4.625% €500 Million Notes, due 2030	552	533
3.91% - 4.25% Federal Home Loan Bank Borrowings, due 2032	300	300
7.00% Notes, due 2034	124	124
6.50% Notes, due 2035	271	271
7.50% Notes, due 2036	19	19
6.50% Notes, due 2042	250	250
4.85% Notes, due 2044	564	564
4.50% Notes, due 2049	232	232
3.951% Notes, due 2050	1,248	1,248
4.125% Junior Subordinated notes, due 2051[2]	500	500
5.50% Notes, due 2052	1,000	1,000
3.625% €500 Million Junior Subordinated notes, due 2059[3]	552	533
3.95% Notes, due 2060	746	746
4.30% Junior Subordinated notes, due 2061[4]	800	800
7.80% Junior Subordinated notes, due 2087[5]	437	437
10.75% Junior Subordinated notes, due 2088[6]	35	35
7.697% Surplus notes, due 2097	260	260
Subtotal	10,088	10,556
Unamortized costs	(481)	(503)
Total long-term debt	$9,607	$10,053

(1) Short-term debt is the current maturities of the 4.25% Notes, due June 15, 2023 and the 1.75% Notes, due March 27, 2024.
(2) The par value call date is three months prior to and on December 15, 2026, after which the notes are callable at par during the three-month period prior to and on each succeeding interest reset date.
(3) The par value call date and final fixed rate interest payment date is May 23, 2024, subject to certain requirements.
(4) The par value call date is February 1, 2026 after which the notes are callable at par on each subsequent interest payment date.
(5) The par value call date and final fixed rate interest payment date is March 15, 2037, subject to certain requirements.
(6) The par value call date and final fixed rate interest payment date is June 15, 2038, subject to certain requirements.

As part of its overall capital strategy, the Company previously announced that it may issue, repurchase or exchange debt depending on market conditions. Debt repurchases may be executed through open market or other appropriate transactions. The Company continues to evaluate market conditions and may periodically affect transactions in its debt, subject to applicable limitations.

Debt Transactions

On June 15, 2023, $547 million of LMGI 4.25% Notes were paid at maturity.

On December 15, 2022, $40 million of Rockhill Holding Company ("RHC") Notes were redeemed.

On December 2, 2022, LMGI issued €500 million of Senior Notes, due 2030 ("the 2030 Notes"). Interest is payable annually at a fixed rate of 4.625%. The 2030 Notes mature on December 2, 2030.

On November 23, 2022, $15 million of STFC Notes were redeemed.

On November 3, 2022, $96 million of SPC FHLB borrowings were paid.

On September 21, 2022, $19 million of SAM and $21 million of SPC FHLB borrowings were paid.

On September 2, 2022, $11 million of SAM FHLB borrowings were paid.

On June 6, 2022, LMGI issued $1 billion of Senior Notes, due 2052 (the "2052 Notes"). Interest is payable semi-annually at a fixed rate of 5.50%. The 2052 Notes mature on June 15, 2052.

On May 2, 2022, $473 million of LMGI 4.95% Notes were paid at maturity.

Interest Expense

Consolidated interest expense for the three and twelve months ended December 31, 2023 was $130 million and $529 million, respectively, a decrease of $1 million and an increase of $23 million over the same periods in 2022.

Holding Company Liquidity and Capital Resources

The Company conducts substantially all of its operations through its wholly owned insurance and service company subsidiaries, and therefore is primarily dependent on dividends, distributions, loans or other payments of funds from these entities to meet its current and future obligations. However, the subsidiaries are separate and distinct legal entities and have no obligation to make funds available to the Company, whether in the form of loans, dividends, or other distributions. As of December 31, 2023, the Company, through its downstream subsidiaries LMGI and LMFE, had $9.2 billion and $552 million, respectively, of debt outstanding, excluding discount and issuance costs.

The insurance subsidiaries' ability to pay dividends is restricted under applicable insurance law and regulations and may only be paid from unassigned surplus. Under the insurance laws of the domiciliary states of the insurance subsidiaries, an insurer may make an ordinary dividend payment if its surplus as regards to policyholders, following such dividend, is reasonable in relation to its outstanding liabilities, is adequate to its financial needs and does not exceed the insurer's unassigned surplus. However, no insurer may pay an extraordinary dividend without the approval or non disapproval of the domiciliary insurance regulatory authority. Insurance subsidiaries owned directly by LMGI are LMIC, Liberty Mutual Personal Insurance Company ("LMPICO"), LMFIC, EICOW and SAM. Under the insurance laws of Massachusetts, the domiciliary state of LMIC, an extraordinary dividend is defined as a dividend whose fair market value, together with other dividends made within the preceding 12 months, exceeds the greater of 10% of the insurer's surplus as regards policyholders as of the preceding December 31, or the insurer's net income for the 12-month period ending on the preceding December 31. Under the insurance laws of New Hampshire, the domiciliary state of LMPICO, an extraordinary dividend is defined as (1) a dividend whose fair market value, together with other dividends paid within the preceding 12 months, exceeds the lesser of (a) 10% of the insurer's surplus as regards policyholders as of the preceding December 31, or (b) the insurer's net income, excluding realized capital gains, for the calendar year preceding the date of the dividend, but not including pro rata distributions of any class of the insurer's own securities, or (2) the aggregate of the insurer's net income from the previous two calendar years that has not already been paid out as dividends, excluding realized capital gains and any dividends paid in the previous two calendar years. Under the insurance laws of Wisconsin, the domiciliary state of LMFIC and EICOW, an extraordinary dividend is defined as a dividend whose fair market value, together with other dividends paid within the preceding 12 months, exceeds the lesser of (a) 10% of the insurer's surplus with regard to policyholders as of the preceding December 31, or (b) the greater of (1) the insurer's net income for the calendar year preceding the date of the dividend, minus realized capital gains for that calendar year, or (2) the aggregate of the insurer's net income for the three calendar years preceding the date of the dividend, minus realized capital gains for those calendar years and minus dividends paid within the first two of the preceding three calendar years. Under the insurance laws of Ohio, the domiciliary state of SAM, an extraordinary dividend is defined as a dividend whose fair market value, together with other dividends made within the preceding 12 months, exceeds the greater of 10% of the insurer's surplus as regards policyholders as of the preceding December 31 or the insurer's net income for the 12-month period ending on the preceding December 31. Changes in the extraordinary dividend regulation of the domiciliary states of LMIC, LMPICO, LMFIC, EICOW and SAM could negatively affect LMGI's ability to pay principal and interest on its debt, as could a redomestication or merger of LMIC, LMPICO, LMFIC, EICOW or SAM to a different domiciliary state.

The authorized control level risk-based capital (as of December 31, 2023) and 2024 available dividend capacity prior to needing regulatory approval for LMIC, LMFIC, EICOW and SAM were as follows:

$ in Millions	RBC Ratio[1]		Dividend Capacity[2]	Dividends Paid[3]
RBC Ratios and Dividend Capacity	2023	2022	2024	2023
LMIC	362%	361%	$2,078	$65
LMFIC	382%	397%	$19	$15
EICOW	395%	400%	$44	$-
SAM	2,746%	2,178%	$53	$510

1 Authorized control level risk-based capital as defined by the NAIC.
2 Represents the estimated maximum allowable dividend without prior regulatory approval in the state of domicile.
3 Dividends paid represent amounts paid during the twelve months ended December 31, 2023. Available dividend capacity as of December 31, 2023 is calculated as 2024 dividend capacity less dividends paid for the preceding 12 months. Dividends paid January 1, 2023 through December 31, 2023 for LMIC, LMFIC, EICOW and SAM were $65 million, $15 million, zero and $510 million respectively.

LMGI also has access to the following sources of funding:

- An unsecured revolving credit facility of $1 billion with an expiration date of April 18, 2027. To date, no funds have been borrowed under the facility.
- A management services agreement with LMIC pursuant to which LMGI is entitled to collect certain costs plus a management fee for services rendered by LMGI employees.
- Investment management agreements with affiliated entities pursuant to which an LMGI subsidiary investment advisor is entitled to recover annual expenses for investment management services performed by its employees.
- Liberty Corporate Services LLC ("LCS"), which through its subsidiaries collects fees and other revenues, primarily for claims administration, agency and IT services rendered for affiliated and non-affiliated entities. For the three and twelve months ended December 31, 2023, LCS recorded $127 million and $514 million, respectively, in pre-tax income.
- Approximately $80 million of annual dividends related to non-redeemable perpetual preferred stock issuances by LMIC and LMFIC.

$ in Millions	As of December 31, 2023	As of December 31, 2022
Total long-term debt	$9,607	$10,053
Unamortized discount and debt issuance costs	(481)	(503)
Total long-term debt excluding unamortized discount and debt issuance costs	$10,088	$10,556
Total equity excluding accumulated other comprehensive income (loss)	$30,187	$30,038
Total capital excluding accumulated other comprehensive income (loss) [1]	$40,275	$40,594
Debt-to-capital capitalization excluding accumulated other comprehensive income (loss) [1]	25.0%	26.0%
Statutory surplus	$27,677	$26,739

1 Excludes unamortized discount and debt issuance costs

The total debt-to-capital capitalization ratio excluding accumulated other comprehensive loss is calculated by dividing (a) total debt excluding unamortized discount and debt issuance costs by (b) total capital excluding accumulated other comprehensive (loss) income. Net unrealized gains and losses on investments can be significantly impacted by both interest rate movements and other economic factors. Accordingly, in the opinion of the Company's management, the debt-to-total capital ratio calculated on this basis provides another useful metric for investors to understand the Company's financial leverage position. The Company's ratio of debt-to-capital (excluding accumulated other comprehensive (loss) income of 25.0% at December 31, 2023 was within the Company's target range.

REINSURANCE

Reinsurance Recoverables

The Company reported reinsurance recoverables of $19.080 billion and $18.777 billion at December 31, 2023 and December 31, 2022, respectively, net of allowance for doubtful accounts of $152 million and $136 million, respectively. Included in these balances are $1.306 billion and $1.008 billion of paid recoverables and $17.926 billion and $17.905 billion of unpaid recoverables (including retroactive reinsurance), respectively.

S&P Rating[1]	**As of December 31, 2023**			
$ in Millions	**Gross Recoverables[2]**	**Collateral Held[3]**	**Net Recoverables[4]**	**% of Total Net Recoverables**
Rated Entities				
AAA	$ -	$ -	$ -	-
AA+, AA, AA-	8,006	7,207	2,761	25%
A+, A, A-	5,429	903	4,583	41%
BBB+, BBB, BBB-	-	-	-	-
BB+ or below	-	-	-	-
Subtotal	13,435	8,110	7,344	66%
Pools & Associations				
State mandated involuntary pools and associations	2,901	-	2,901	26%
Voluntary	164	124	160	1%
Subtotal	3,065	124	3,061	27%
Non-Rated Entities[5]				
Captives & fronting companies	1,771	2,534	437	4%
Other	961	2,201	363	3%
Subtotal	2,732	4,735	800	7%
Grand Total	$19,232	$12,969	$11,205	100%

1 Standard & Poor's ratings are as of December 31, 2023.

2 Gross recoverables are defined as paid and unpaid claims and claim adjustment expense including IBNR and before both bad debt reserve set aside for potential uncollectible reinsurance and consideration of collateral.

3 Collateral refers to letters of credit, trust accounts, and funds held against outstanding and potential future claims and claim adjustment expenses related to reinsurance recoverable balances.

4 Net recoverables are defined as the difference between the amount of gross recoverables and collateral held for each reinsurer at the ceding entity level. If the collateral held for a reinsurer at a ceding entity level is greater than the gross recoverable, net recoverables are reported as $0.

5 Reinsurers not rated by Standard & Poor's.

Reinsurance Groups[1]	As of December 31, 2023		
$ in Millions	Gross Recoverables[2]	Collateral Held[3]	Net Recoverables[4]
1. Berkshire Hathaway Insurance Group	$5,151	$6,327	$694
2. Swiss Re Group	1,579	634	958
3. Nationwide Group	1,124	1	1,123
4. Everest Re Group	862	247	624
5. Lloyd's of London	604	-	604
6. Partner Re Group	549	141	408
7. Munich Re Group	413	15	402
8. Renaissance Re Holdings Group	403	265	154
9. Hanover Re Group	339	90	270
10. CUMIS Insurance Society Group	302	-	302
11. Markel Corp	273	3	271
12. Enstar Group Ltd	272	316	4
13. Exchange Indemnity Company	259	117	142
14. Stonefort Reinsurance S.A.	250	361	-
15. Chubb Ltd.	242	121	161
State Mandated Involuntary pools and associations	2,901	-	2,901
Voluntary pools and associations	164	124	160
All Other	3,545	4,207	2,027
Total Reinsurance Recoverables	$19,232	$12,969	$11,205

1 Reinsurance Groups are defined as all reinsurance subsidiaries owned by a common parent.
2 Gross recoverables are defined as paid and unpaid claims and claim adjustment expense including IBNR and before both bad debt reserve set aside for potential uncollectible reinsurance and consideration of collateral.
3 Collateral refers to letters of credit, trust accounts, and funds held against outstanding and potential future claims and claim adjustment expenses related to reinsurance recoverable balances.
4 Net recoverables are defined as the difference between the amount of gross recoverables and collateral held for each reinsurer at the ceding entity level. If the collateral held for a reinsurer at a ceding entity level is greater than the gross recoverable, net recoverables are reported as $0.

Approximately 93% and 93% of the Company's reinsurance recoverable balance, net of collateral held and including voluntary and involuntary pools and associations, was from reinsurers rated A- or better from A.M. Best and Standard & Poor's, respectively, at December 31, 2023. Collateral held against outstanding gross reinsurance recoverable balances was $12.969 billion at December 31, 2023.

The remaining 7% and 7% of the Company's net reinsurance recoverable balance is well diversified. No single reinsurer rated below A- or not rated by A.M. Best or Standard & Poor's accounts for more than 1% of GAAP equity. In addition, the average net reinsurance recoverable balance from individual reinsurers rated below A- or not rated by A.M. Best and Standard & Poor's was approximately $1 million as of December 31, 2023.

The reinsurance recoverables from state mandated involuntary pools and associations primarily represent the Company's servicing carrier business. As a servicing carrier, the Company retains no direct underwriting risk but instead cedes 100% of the involuntary market premium and losses back to the pool. Payment of losses is shared by the pool participants in proportion to their pool participation. Reinsurer credit risk with respect to any such involuntary pool or association is a function of the creditworthiness of all the pool participants.

The Company's reinsurance recoverables from Nationwide Indemnity Company have been fully guaranteed by its parent, Nationwide Mutual Insurance Company, which has a financial strength rating of A+ from Standard & Poor's and A+ from A.M. Best.

Adverse Development Reinsurance

On November 5, 2019, LMIC entered into a reinsurance transaction with NICO, a subsidiary of Berkshire Hathaway Inc, on a combined aggregate excess of loss agreement for certain USRM Business Lines and GRS National Insurance workers compensation, commercial auto liability and general liability excluding umbrella and warranty liabilities. The first layer of the contract attaches at $300 million below applicable held reserves at inception of $8.342 billion of combined aggregate reserves. The second layer of the contract provides adverse development coverage for $1.000 billion above a retention equal to $8.742 billion. The contract includes a sublimit of $100 million for certain general liability liabilities. At the closing of the NICO Casualty Reinsurance Transaction, but effective as of January 1, 2019, the Company ceded $300 million of existing undiscounted liabilities, paid NICO total consideration of $462 million and recorded a pre-tax loss of $173 million. This contract is accounted for on a retroactive basis.

In general terms, the covered business includes post December 31, 2018 development for US Retail Markets Business Lines and Global Risks Solutions National Insurance segment on: (1) certain workers compensation liabilities arising under policies on the books as of December 31, 2018 as respects injuries or accidents occurring after December 31, 2013 and prior to January 1, 2019; (2) commercial auto liabilities arising under policies on the books as of December 31, 2018 as respects injuries or accidents occurring prior to January 1, 2019; and (3) general liability excluding umbrella and warranty arising under policies as of December 31, 2018 as respects injuries or accidents occurring prior to January 1, 2019.

Since the NICO Casualty Reinsurance Transaction is accounted for as retroactive reinsurance in the Company's GAAP Consolidated Financial Statements, to the extent there is unfavorable development of losses covered by this reinsurance, an additional reinsurance benefit is recognized in the Consolidated Statements of Operations until those benefits exceed the loss on the transaction. Reinsurance benefits will be deferred and are amortized into earnings over the period when underlying claims are settled.

As the aggregate development on the contract has exceeded the original pre-tax loss of $173 million, deferred gains are now being recorded. The Company reported deferred gain amortization of $17 million and $16 million for the twelve months ended December 31, 2023 and December 31, 2022, respectively. As of December 31, 2023 and 2022, deferred gains were $237 million and $218 million. Limits remaining on the contract as of December 31, 2023 were $507 million.

In conjunction with the Ironshore acquisition and effective May 1, 2017, the Company entered into a reinsurance transaction with NICO on a combined aggregate excess of loss agreement providing coverage for substantially all of Ironshore's reserves related to losses occurring prior to January 1, 2017. The first layer of the contract transfers $400 million of held reserves at inception, for which the Company established reinsurance recoverables on the Consolidated Balance Sheet. The second layer of the contract provides adverse development coverage for 95% of $500 million above a retention equal to $3.006 billion, minus paid losses between January 1, 2017 and May 1, 2017, which retention approximates the total held reserves on the covered business on Ironshore's opening balance sheet. The contract includes a sublimit of $277 million for certain construction liability liabilities. The Company paid NICO consideration of $550 million, including interest accrued at the time of the settlement. The contract is accounted for on a prospective basis. Limits remaining on the contracts in total, and for construction liability liabilities, respectively, were $456 million and zero as of December 31, 2023.

On July 17, 2014, LMIC entered into a reinsurance transaction with NICO on a combined aggregate excess of loss agreement for substantially all of the Company's US workers compensation, asbestos and environmental liabilities, attaching at $12.522 billion of combined aggregate reserves, with an aggregate limit of $6.500 billion and sublimits of $3.100 billion for asbestos and environmental liabilities and $4.507 billion for certain workers compensation liabilities. At the closing of the NICO Reinsurance Transaction, but effective as of January 1, 2014, the Company ceded $3.320 billion of existing undiscounted liabilities under this retroactive reinsurance agreement. NICO will provide $3.180 billion of additional aggregate adverse development reinsurance. The Company paid NICO total consideration of $3.046 billion and recorded a pre-tax loss of $128 million. With respect to the ceded asbestos and environmental business, NICO has been given authority to handle claims, subject to the Company's oversight and control. With respect to the ceded workers compensation business, the Company will continue to handle claims. This contract is accounted for on a retroactive basis.

In general terms, the covered business includes post December 31, 2013 development on: (1) asbestos and environmental liabilities arising under policies of insurance and reinsurance with effective dates prior to January 1, 2005; and (2) workers compensation liabilities arising out of policies on the books of the Company's former Commercial Insurance Strategic Business Unit as of December 31, 2013, as respects injuries or accidents occurring prior to January 1, 2014.

As the aggregate development on the contract has exceeded the original pre-tax loss of $128 million, deferred gains are now being recorded. The Company reported a deferred gain amortization of ($3) and $15 million for the twelve months ended December 31, 2023, and December 31, 2022, respectively. As of December 31, 2023 and 2022, deferred gains were $19 million and $26 million. Limits remaining on the contract in total, and for asbestos and environmental liabilities, respectively, were $3.204 billion and $258 million as of December 31, 2023.

Non Catastrophe Reinsurance

The Company purchases facultative and treaty reinsurance protection on a per risk, per policy, per loss and/or per occurrence basis. Treaty coverage is provided on a pro rata and excess of loss basis for portions of the Company's property, marine, terrorism, energy, third party motor, cyber, financial risk, surety, aviation and casualty lines portfolios.

Catastrophe Reinsurance

The Company has property catastrophe reinsurance coverage for its domestic business and certain specialty operations including: 1) hurricanes and earthquake reinsurance covering a substantial portion of $3.6 billion of loss in excess of $1.0 billion of retained loss in the United States, Canada, and the Caribbean, excluding certain reinsurance exposures; 2) per occurrence and aggregate excess of loss coverage targeting our reinsurance exposures; and 3) quota share reinsurance programs. These programs are structured to meet the Company's established tolerances under its Enterprise Risk Management Program.

The Company purchases property catastrophe reinsurance coverage for the international property books to protect against international catastrophe events.

The Company purchases workers compensation catastrophe reinsurance, including coverage for its domestic commercial operations and certain specialty operations' US exposures. This program provides significant reinsurance protection in excess of $330 million per occurrence retention, including coverage for terrorism events and/or losses for a single event at a single insured location in excess of $75 million. These contracts generally exclude acts of terrorism which are "certified" by the US government where such certified terrorism events involve the intentional use of nuclear, chemical, or biological materials.

Catastrophe Bond Reinsurance

On December 16, 2022, the Company entered into a multi-year property catastrophe reinsurance agreement, effective January 1, 2023, with Mystic Re IV Ltd. ("Mystic IV"), a Bermuda domiciled reinsurer, to provide a total of $150 million of reinsurance coverage for the Company and its affiliates for named storms and earthquakes covering US, Caribbean and Canada. The reinsurance agreement is collateralized. Such collateral is provided by Mystic IV using proceeds from the issuance of certain catastrophe bonds. The reinsurance agreement provides per occurrence indemnity coverage. The Company has not recorded any recoveries under this program.

On June 16, 2021, the Company entered into a multi-year property catastrophe reinsurance agreement, effective July 1, 2021, with Mystic IV to provide a total of $300 million of reinsurance coverage for the Company and its affiliates for named storms and earthquakes covering US, Caribbean and Canada. The reinsurance agreement is collateralized. Such collateral is provided by Mystic IV using proceeds from the issuance of certain catastrophe bonds. The reinsurance agreement provides per occurrence indemnity coverage. The Company has not recorded any recoveries under this program.

On December 21, 2020, the Company entered into a multi-year property catastrophe reinsurance agreement, effective January 1, 2021, with Mystic IV to provide a total of $300 million of reinsurance coverage for the Company and its affiliates for named storms covering US and earthquakes covering US and Canada. The reinsurance agreement is collateralized. Such collateral is provided by Mystic IV using proceeds from the issuance of certain catastrophe bonds. The reinsurance agreement provides per occurrence coverage based on weighted industry insured loss index. This loss index is weighted to align with the Company's assumed reinsurance portfolio. The Company has not recorded any recoveries under this program.

Florida Hurricane Catastrophe Fund

The Company participates in the Florida Hurricane Catastrophe Fund ("FHCF"), a state-mandated catastrophe fund that provides reimbursement to insurers for a portion of their Florida hurricane losses. FHCF resources may be insufficient to meet the obligations of FHCF. Limits, premium and reimbursements from FHCF apply on a per company basis. If losses fall disproportionately on one insurance entity within the Company, recovery from FHCF could be less than anticipated. On June 1, 2023, the Company renewed coverage for 90% of approximately $53 million excess of $25 million. Recoveries from FHCF inure to the sole benefit of the Company. If the Company fails to recover as anticipated from FHCF there could be an adverse effect on the Company's business, financial condition or results of operations.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. The Company's principal estimates include (1) unpaid claims and claim adjustment expense reserves, (2) reinsurance recoverables and associated credit loss allowance, (3) fair value determination of the investment portfolio, (4) impairment assessments of goodwill and intangible assets, (5) deferred income tax valuation allowance, and (6) pension and postretirement benefit obligations.

While the amounts included in the Consolidated Financial Statements reflect management's best estimates and assumptions, these amounts ultimately could vary.

For additional discussion, please refer to footnote 1 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

Unpaid Claims and Claim Adjustment Expenses

Property and casualty insurance unpaid claims and claim adjustment expenses represent the Company's best estimate of amounts necessary to settle all outstanding claims, including claims that are incurred but not reported as of the reporting date. The Company's reserve projections are based primarily on detailed analysis of the facts in each case, experience with similar cases and various historical development patterns. Consideration is given to such historical patterns as field reserving trends and claims settlement practices, loss payments, pending levels of unpaid claims and product mix, as well as court decisions, economic conditions and public attitudes. All of these factors can affect the estimation of reserves.

Establishing loss reserves, including loss reserves for catastrophic events that have occurred, is an estimation process. Many factors can ultimately affect the final settlement of a claim and, therefore, the necessary reserve.

For additional discussion, please refer to footnote 6 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

Asbestos and Environmental

As a result of the significant uncertainty inherent in determining a company's asbestos and environmental liabilities and establishing related reserves, the amount of reserves required to adequately fund the Company's asbestos and environmental claims cannot be accurately estimated using conventional reserving methodologies based on historical data and trends. As a result, the use of conventional reserving methodologies frequently has to be supplemented by subjective considerations including managerial judgment. In that regard, the estimation of asbestos claims and associated liabilities and the analysis of environmental claims considered prevailing applicable law and certain inconsistencies of court decisions as to coverage, plaintiffs' expanded theories of liability, and the risks inherent in major litigation and other uncertainties. The Company believes that in future periods it is possible that the outcome of the continued uncertainties regarding asbestos and environmental related claims could result in an aggregate liability that differs from current reserves and would be covered under the NICO Reinsurance Transaction subject to treaty terms and conditions.

For additional discussion, please refer to footnote 6 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

Reinsurance Recoverables

Amounts recoverable from reinsurers are estimated in a manner consistent with the claim liability associated with the reinsured business. The Company evaluates and monitors the financial condition of its reinsurers under voluntary reinsurance arrangements to minimize its exposure to significant losses from reinsurer insolvencies. The Company reports its reinsurance recoverables net of an allowance for credit losses. The allowance is based upon the Company's ongoing review of amounts outstanding, length of collection periods, changes in reinsurer credit standing and other relevant factors, including information relating to past events, current conditions, and reasonable and supportable forecasts. The Company assesses allowance for credit losses by individual reinsurers and uses a probability-of-default method. Write-offs of reinsurance recoverable are recorded in the period in which they are deemed uncollectible and are recorded against allowance for credit losses. The establishment of reinsurance recoverables and the related allowance for credit losses is also an inherently uncertain process involving estimates. Changes in these estimates could result in additional charges to the accompanying Consolidated Statements of Operations.

Ceded transactions that transfer risk but are retroactive are included in reinsurance recoverables. The excess of estimated liabilities for claims and claim costs over the consideration paid net of experience adjustments is established as a deferred credit at inception. The deferred amounts are subsequently amortized using the effective interest method over the expected settlement period. The periodic amortization is reflected in the accompanying Consolidated Statements of Operations through benefits, claims and claim adjustment expenses. In transactions where the consideration paid exceeds the estimated liabilities for claims and claim costs a loss is recognized. If the adverse development net of experience adjustments exceeds the original loss, deferred gains are recorded. The deferred gains are subsequently recognized into earnings over the expected settlement period of the reserves.

For additional discussion, please refer to footnote 5 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

Fair Value Determination

Fair value is the price that would be received to sell an asset or would be paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company primarily uses the market approach, which generally utilizes market transaction data for identical or similar instruments.

The hierarchy level assigned to each security in the Company's investments portfolio is based on the Company's assessment of the transparency and reliability of the inputs used in the valuation of each instrument at the measurement date. Securities are classified into three hierarchy levels: Level 1, Level 2 or Level 3.

Regarding fair value measurements, as of December 31, 2023, excluding other assets, the Company reflected $9.010 billion (12.5%) as level 1 (quoted prices in active markets) primarily consisting of US Treasuries and common equity securities. The majority of the Company's invested assets are reported as level 2 (quoted prices from other observable inputs). As of December 31, 2023, the Company reported $60.405 billion (83.7%) as level 2, consisting primarily of fixed maturity securities. Finally, the Company reported $2.771 billion (3.8%) as level 3 (unobservable inputs), primarily consisting of international and privately held securities for which a market price is not readily observable.

For additional discussion, please refer to footnote 10 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

Impairment Losses on Investments

The Company reviews fixed maturity securities and other investments which include limited partnership and other equity method investments (primarily traditional private equity, natural resource and real estate) for impairment on a quarterly basis. These investments are reviewed for both quantitative and qualitative considerations including, but not limited to: (a) the extent of the decline in fair value below book value, (b) the duration of the decline, (c) significant adverse changes in the financial condition or near term prospects of the investment or issuer, (d) significant change in the business climate or credit ratings of the issuer, (e) general market conditions and volatility, (f) industry factors, (g) the past impairment of the security holding or the issuer, and (h) impact of foreign exchange rates on foreign currency denominated securities.

The Company adopted ASC 326 on January 1, 2023. In accordance with ASC 326, if the Company does not intend to sell the security and it is not more likely than not that the Company will be required to sell the security before recovery of its amortized cost basis, the Company utilizes both qualitative and quantitative inputs to determine if a credit loss is expected.

The Company is required to review its natural resource and other equity method investments when facts and circumstances indicate that carrying values may not be recoverable. In performing a quarterly review, the fair value of the Company's investment is estimated using indicators including, but not limited to, market comparables and analyses, commodity prices, and discounted cash flows and a realized loss is recognized for the excess, if any, of the investment's carrying value over its estimated fair value.

For additional discussion, please refer to footnote 1 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

Goodwill and Intangible Assets

Goodwill is tested for impairment at least annually using either a qualitative or a quantitative process. Election of the approach can be made at the reporting unit level. The reporting unit has the option to skip the qualitative test and move directly to completion of the quantitative process. As of December 31, 2023, the Company has two reporting units – US Retail Markets and Global Risk Solutions.

Indefinite-lived intangible assets held by the Company are reviewed for impairment on at least an annual basis using a qualitative process. The classification of the asset as indefinite-lived is reassessed, and an impairment is recognized if the carrying amount of the asset exceeds its fair value.

The Company recognized no goodwill or intangible impairments in 2023.

For additional discussion, please refer to footnote 1 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

Deferred Income Taxes

The income tax provision is calculated under the liability method of accounting. Deferred income tax assets and liabilities are recorded based upon the difference between the financial statement and tax bases of assets and liabilities at the enacted tax rates. The principal assets and liabilities giving rise to such differences are unearned premiums, insurance loss reserves, employee benefits, net unrealized gains and losses on investments, and deferred policy acquisition costs.

Consistent with our overall investment policy and strategy, the Company implemented a tax planning strategy in 2022 to support the realization of a majority of the deferred tax assets associated with unrealized losses on fixed maturity investments. For the year ended December 31, 2022, the Company established a partial valuation allowance of $62 million on certain deferred tax assets related to unrealized losses in the available for sale securities portfolio. During 2023, changes in market conditions resulted in a release of that valuation allowance which has been allocated to other comprehensive income.

For additional discussion, please refer to footnote 8 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

Pension and Postretirement Benefit Obligations

On an annual basis, the Company reviews the discount rate assumption used to determine the benefit obligations and the composition of various yield curves to ensure that the assumed discount rate reflects the Company's best estimate of the rate of return inherent in a portfolio of high-quality debt instruments that would provide the cash flows necessary to settle the Company's projected benefit payments.

The discount rate assumption used to determine the benefit obligations was based on a yield curve approach where the cash flows related to the benefit plans' liability stream were discounted at an interest rate specifically applicable to the timing of the cash flows. The service cost is calculated by discounting the future cash flows attributable to the current year of service using spot rates specifically applicable to the timing of the cash flows. Interest cost is determined by multiplying each benefit obligation cash flow by the spot rate applicable to that timing of the cash flow.

In choosing the expected long-term rate of return on plan assets, the Company's Retirement Committee considered the historical returns of equity and fixed income markets in conjunction with current economic and financial market conditions.

For additional discussion, please refer to footnote 9 in the Company's December 31, 2023 Audited Consolidated Financial Statements.

ABOUT THE COMPANY

Boston-based LMHC, the parent corporation of the Liberty Mutual Insurance group of entities, is a diversified global insurer and fifth largest global property and casualty insurer based on 2022 gross written premium. The Company also ranks 86th on the Fortune 100 list of largest corporations in the US based on 2022 revenue. As of December 31, 2023, LMHC had $165.208 billion in consolidated assets, $140.148 billion in consolidated liabilities, and $49.4 billion in annual consolidated revenue.

LMHC, through its subsidiaries and affiliated companies, offers a wide range of property and casualty insurance products and services to individuals and businesses alike. In 2001 and 2002, the Company formed a mutual holding company structure, whereby the three principal mutual insurance companies, LMIC, LMFIC and EICOW, each became separate stock insurance companies under the ownership of LMHC. In 2022, SAM, formerly a mutual insurance company, also became a stock insurance company under the ownership of LMHC.

Functionally, the Company conducts substantially all of its insurance business through two business units, with each operating independently of the other in certain areas such as sales, underwriting, and claims, but, as appropriate, collaborating in other areas such as actuarial and financial. Management believes this structure provides increased synergy to the Company and permits each business unit to execute its business strategy and/or to make acquisitions without impacting or disrupting the operations of the other business unit.

LMHC employs over 45,000 people in 27 countries and economies around the world. For a full description of the Company's business operations, products and distribution channels, please visit Liberty Mutual's Investor Relations website at www.libertymutualgroup.com/investors