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

Quarter Ended March 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 three months ended March 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, 2022 Audited Consolidated Financial Statements and March 31, 2023 Unaudited 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 U.S. 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).

Index

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 U.S. 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'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 Unaudited Consolidated Financial Statements.

Consolidated Results of Operations

	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Net written premium	$11,887	$11,567	2.8%
Pre-tax operating income before limited partnerships income[1]	61	399	(84.7)
Limited partnerships (loss) income	(84)	365	NM
Net realized losses	(16)	(144)	(88.9)
Unit linked life insurance	(30)	47	NM
Acquisition & integration costs	(12)	(9)	33.3
Restructuring costs	(2)	(2)	-
Consolidated net (loss) income	(67)	498	NM
Less: Net income attributable to non-controlling interest	7	-	NM
Net (loss) income attributable to LMHC	(74)	498	NM
Net (loss) income attributable to LMHC excluding unrealized impact[2]	(66)	459	NM
Cash flow provided by continuing operations	$53	$786	(93.3%)

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 March 31,		
	2023	**2022**	**Change (Points)**
Underlying combined ratio[1]	94.1%	92.8%	1.3
Combined ratio[2]	103.2%	98.9%	4.3

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 March 31, 2023	As of December 31, 2022	Change
Short-term debt[1]	$1,090	$547	99.3%
Long-term debt	9,559	10,053	(4.9)
Total debt	$10,649	$10,600	0.5%
Unassigned equity	$29,704	$29,822	(0.4%)
Accumulated other comprehensive (loss)	(6,662)	(7,830)	(14.9)
Non-controlling interest	223	216	3.2
Total equity	$23,265	$22,208	4.8%

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

Management has assessed material subsequent events through May 10, 2023, 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), unit linked life insurance, 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 December 2, 2022, Liberty Mutual Group, Inc. ("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, Liberty Mutual Group, Inc. ("LMGI") issued $1,000 million 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:

- Global Retail Markets combines the Company's local expertise in growth markets outside the U.S. with strong and scalable U.S. capabilities in order to take advantage of opportunities to grow its business globally. Global Retail Markets is organized into the following segments: U.S., West, East, and Reinsurance.

- Global Risk Solutions offers a wide array of property, casualty, specialty and reinsurance products distributed through brokers and independent agents globally. Global Risk Solutions is organized into the following market segments: Liberty Specialty Markets, Liberty Mutual Reinsurance, North America, Global Surety, and Other Global Risk Solutions.

Overview – Consolidated

Consolidated NWP by significant line of business was as follows:

	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Private passenger automobile	$4,044	$4,014	0.7%
Homeowners	1,956	1,789	9.3
Global Risk Solutions reinsurance	1,173	902	30.0
Global Risk Solutions specialty insurance[1]	942	1,086	(13.3)
Commercial automobile	757	581	30.3
Commercial multiple-peril	583	531	9.8
Workers compensation	467	485	(3.7)
Global Risk Solutions casualty[2]	423	548	(22.8)
Commercial property	378	379	(0.3)
Surety	354	333	6.3
Global Retail Markets general liability	293	265	10.6
Global Risk Solutions inland marine[3]	148	147	0.7
Corporate reinsurance[4]	9	(75)	NM
Global Risk Solutions other reinsurance	(63)	140	NM
Other[5]	423	442	(4.3)
Total NWP	$11,887	$11,567	2.8%

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 Global Retail Markets.
NM = Not Meaningful

NWP for the three months ended March 31, 2023 was $11.887 billion, an increase of $320 million over the same period in 2022.

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

- Homeowners NWP increased $167 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 NWP increased $271 million. The increase reflects renewal rate increases.
- Commercial automobile NWP increased $176 million. The increase reflects the acquisition of SAM and renewal rate increases.
- Global Risk Solutions casualty NWP decreased $125 million. The decrease reflects lower premium from de-risking of the portfolio in unprofitable and economically challenging products.
- Corporate reinsurance NWP increased $84 million. The increase reflects higher assumed on internal reinsurance treaties partially offset by higher ceded premium on external reinsurance treaties.
- Global Risk Solutions other reinsurance NWP decreased $203 million. The decrease reflects higher cessions due to higher volume on direct written business, increase in reinsurance costs and more coverage being purchased.

Consolidated NWP by business was as follows:

	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Global Retail Markets	$8,080	$7,690	5.1%
Global Risk Solutions	3,815	3,954	(3.5)
Corporate and Other	(8)	(77)	(89.6)
Total NWP	$11,887	$11,567	2.8%
Foreign exchange effect on growth			(1.0)
NWP growth excluding foreign exchange[1]			3.8%

1 Determined by assuming constant foreign exchange rates between periods.

Consolidated NWP by geographic distribution channels was as follows:

	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
U.S.	$9,468	$9,491	(0.2%)
International excluding foreign exchange[1]	2,529	2,076	21.8
Foreign exchange[1]	(110)	-	NM
Total NWP	$11,887	$11,567	2.8%

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

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 March 31,		
$ in Millions	**2023**	**2022**	**Change**
Revenues	$12,760	$11,874	7.5%
Underlying PTOI before limited partnerships income	$1,139	$1,066	7.0
Catastrophes	(1,027)	(656)	56.6
Net incurred losses attributable to prior years:			
- Asbestos and environmental[1]	-	-	-
- All other[2]	(51)	(11)	NM
Pre-tax operating income before limited partnerships income	61	399	(84.7)
Limited partnerships (loss) income[3]	(84)	365	NM
Pre-tax operating (loss) income	(23)	764	NM
Net realized losses	(16)	(144)	(88.9)
Unit linked life insurance	(30)	47	NM
Acquisition & integration costs	(12)	(9)	33.3
Restructuring costs	(2)	(2)	-
Pre-tax (loss) income	(83)	656	NM
Income tax (benefit) expense	(16)	158	NM
Consolidated net (loss) income	(67)	498	NM
Less: Net income attributable to non-controlling interest	7	-	NM
Net (loss) income attributable to LMHC	(74)	498	NM
Net (loss) income attributable to LMHC excluding unrealized impact[4]	(66)	459	NM
Cash flow provided by continuing operations	$53	$786	(93.3%)

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 $7 million for the three months ended March 31, 2023, and $9 million for the same period in 2022.
3 Limited partnerships income includes LP, LLC and other equity method income within net investment income in the accompanying Consolidated Statement of Operations and revenue and expenses from direct investments in natural resources.
4 Excludes unrealized gains on equity securities, unit linked life insurance, and the corresponding tax impact.
NM = Not Meaningful

Limited Partnerships (Loss) Income	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Limited partnerships (loss) income[1]	($82)	$369	NM
Direct investment in natural resources revenues[2]	1	2	(50.0)
Direct investment in natural resources expenses[3]	(3)	(6)	(50.0)
Total limited partnerships (loss) income	($84)	$365	NM

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.
Included within operating costs and expenses in the accompanying Consolidated Statements of Operations.
NM = Not Meaningful

Net Investment Income	Three Months Ended March 31,	
$ in Millions	**2023**	**2022**
Taxable interest income	$720	$462
Tax-exempt interest income	31	38
Dividends	10	9
Limited partnerships (loss) income	(82)	369
Mortgage loans	55	25
Other investment (loss) income	(4)	6
Gross investment income	730	909
Investment expenses[1]	(102)	(93)
Total net investment income	$628	$816

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 (Losses) Gains	Total
Three Months Ended March 31, 2023:				
Fixed maturities	($38)	($12)	$-	($50)
Equities	-	-	40	40
Derivatives	14	-	(4)	10
Other	(2)	-	(14)	(16)
Total	($26)	($12)	$22	($16)
Three Months Ended March 31, 2022:				
Fixed maturities	($114)	$-	$-	($114)
Equities	48	-	(219)	(171)
Derivatives	(50)	-	10	(40)
Other	(8)	(12)	201	181
Total	($124)	($12)	($8)	($144)

Unrealized Gains (Losses) Related to Equity Securities[1]	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Net gains (losses) recognized during the period on equity securities	$26	($18)	NM
Less: Net gains (losses) recognized during the period on equity securities sold during the period	1	(62)	101.6%
Unrealized gains recognized during the reporting period on equity securities still held at the reporting date	$25	$44	43.2%

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

Pre-tax operating income before limited partnerships income for the three months ended March 31, 2023 was $61 million, a decrease of $338 million from the same period in 2022. Underlying pre-tax operating income before limited partnerships income was $1.139 billion, an increase of $73 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 U.S. personal lines and U.S. business lines in 2023 compared to the same period last year. Additionally, the acquisition of AmGeneral on July 28, 2022 resulted in a full quarter of additional loss exposure, earned premium, and expenses in East compared to the same period last year. The increase in underlying pre-tax operating income primarily reflects:

- Higher net investment income.
- Higher average written premium from rate actions to offset rising personal lines frequency and severity trends.

Partially offset by:

- Higher employee related costs.
- A worker's compensation surplus refund from the state of Minnesota in 2022 that did not recur in Global Risk Solutions.
- Elevated non-catastrophe losses in the U.S. driven by personal auto due to increased severity and frequency and personal property due to higher severity in Global Retail Markets.

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

- Additional catastrophe loss exposure from the previously mentioned SAM acquisition.
- Higher-than-expected catastrophe losses in the U.S. driven by elevated severity and frequency of events in Q1 2023 versus Q1 2022.
- Lower limited partnerships income.
- Unfavorable prior accident year strengthening primarily due to development of estimated ultimates for a prior year catastrophe and large loss event in Global Risk Solutions.

Partially offset by:

- The changes to underlying PTOI mentioned above.
- Favorable net incurred losses attributed to prior year in WEM related to prior accident years that have favorably developed in Global Retail Markets
- Lower current year catastrophe losses due to an IBNR estimate for the Russia-Ukraine conflict that did not recur in 2023 in Global Risk Solutions.

Partnerships (loss) income, including operating income from direct investments in natural resources, for the three months ended March 31, 2023 was ($84) million, versus $365 million for the same period in 2022. The decrease primarily reflects:

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

Revenues for the three months ended March 31, 2023 were $12.760 billion, an increase of $886 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 March 31, 2023 was $11.907 billion, an increase of $956 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 March 31, 2023 was $628 million, a decrease of $188 million from the same period in 2022. The decrease primarily reflects:

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

Net realized losses for the three months ended March 31, 2023 were $16 million, an increase of $128 million over the same period in 2022.
The net realized losses in the current period were primarily impacted by:

- $38 million net losses on fixed maturities.
- $12 million impairments on fixed maturity holdings.

Partially offsetting losses were:

- $40 million net change in equity unrealized gains.

The prior period was impacted by:

- $219 million net change in equity unrealized losses.
- $50 million of net losses on derivatives.
- $114 million of net losses on fixed maturity sales.

Partially offsetting losses was:

- $199 million of net change in unrealized gains on energy holdings.

Fee and other revenues for the three months ended March 31, 2023 were $241 million, a decrease of $10 million from the same period in 2022.

Claims, benefits and expenses for the three months ended March 31, 2023 were $12.799 billion, an increase of $1.545 billion over the same period in 2022. The increase primarily reflects:

- Higher-than-expected catastrophe losses in the U.S. driven by elevated severity and frequency of events in Q1 2023 versus Q1 2022.
- Higher U.S. personal lines non-catastrophe losses driven by elevated frequency and severity trends.
- Higher employee related costs.
- Unfavorable prior accident year strengthening in Global Risk Solutions.

Partially offset by:

- Lower advertising spend as we take actions to limit new business production in Global Retail Markets.
- Lower current year catastrophe losses in Global Risk Solutions.

Income tax (benefit) expense on continuing operations for the three months ended March 31, 2023, was ($16) million, versus $158 million for the same period in 2022. The Company's effective tax rate for the three months ended March 31, 2023, was 19% compared to 24% for the same period in 2022. The decrease primarily reflects:

- The tax impact of permanent book-to-tax differences and non-U.S. operations as compared to the pre-tax income (loss) in the relevant period.

Net (loss) income attributable to LMHC for the three months ended March 31, 2023 was ($74) million, versus income of $498 million for the same period in 2022.

Cash flow provided by continuing operations for the three months ended March 31, 2023 was $53 million, a decrease of $733 million from the same period in 2022. The decrease reflects reinsurance payments, unfavorable paid loss activity and expenses paid, partially offset by premium collections.

	Three Months Ended March 31,		
CONSOLIDATED	**2023**	**2022**	**Change (Points)**
Combined ratio			
Claims and claim adjustment expense ratio	64.9%	64.1%	0.8
Underwriting expense ratio	29.2	28.7	0.5
Subtotal	94.1	92.8	1.3
Catastrophes	8.6	6.0	2.6
Net incurred losses attributable to prior years:			
- Asbestos and environmental	-	-	-
- All other[1]	0.5	0.1	0.4
Total combined ratio	103.2%	98.9%	4.3

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

The consolidated underlying combined ratio for the three months ended March 31, 2023 was 94.1%, an increase of 1.3 points over the same period in 2022. The increase primarily reflects:

- Increase in the claims and claim adjustment expense ratio due to higher U.S. non-catastrophe losses in private passenger auto, personal property, and business lines.
- Higher expenses due to an increase in employee related costs.

Partially offset by:

- Higher earned premium due to the topline impacts previously discussed.

Including the impact of catastrophes, net incurred losses attributable to prior years, the total combined ratio for the three months ended March 31, 2023 was 103.2%, an increase of 4.3 points over the same period in 2022. The increase primarily reflects:

- Previously mentioned increase in underlying combined ratio.
- Unfavorable prior accident year strengthening in Global Risk Solutions.

- Higher-than-expected catastrophe losses in the U.S. driven by elevated severity and frequency of events in Q1 2023 versus Q1 2022.

Partially offset by:

- Favorable net incurred losses attributed to prior year in WEM related to prior accident years that have favorably developed in Global Retail Markets.
- Lower current year catastrophe losses in Global Risk Solutions.

GLOBAL RETAIL MARKETS

Overview – Global Retail Markets

Global Retail Markets combines the Company's local expertise in growth markets outside the U.S. with strong and scalable U.S. capabilities to take advantage of opportunities to grow its business globally. Global Retail Markets is comprised of four segments: U.S., West, East, and Reinsurance.

U.S. consists of Personal Lines and Business Lines. U.S. 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 1,690 licensed employee Comparion agents, 870 licensed telesales counselors, independent agents, third-party producers, online, and sponsored affinity groups. U.S. 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. Starting in March 2022, U.S. began including U.S. Personal and Business Lines coverages sold under our newly acquired SAM brand.

West sells property and casualty, health and life insurance products and services to individuals and businesses in Brazil, the Andes Market (Colombia, Chile, Ecuador) and the Western Europe Market (Spain, Portugal, and Ireland). Private passenger automobile insurance is the single largest line of business.

East 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. Starting in July 2022, Malaysia began including the coverages sold under our newly acquired AmGeneral brand.

Global Retail Markets Reinsurance consists of certain internal reinsurance programs.

On March 1, 2022, the Company completed the acquisition of SAM, a super-regional insurance holding company headquartered in Columbus, Ohio.

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.

Global Retail Markets NWP by market segment was as follows:

	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
U.S.	$6,944	$6,763	2.7%
West	698	593	17.7
East	429	329	30.4
Global Retail Markets Reinsurance	9	5	80.0
Total NWP	$8,080	$7,690	5.1%
Foreign exchange effect on growth			(0.6)
NWP growth excluding foreign exchange[1]			5.7%

1 Determined by assuming constant foreign exchange rates between periods.

Global Retail Markets NWP by line of business was as follows:

	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Private passenger automobile	$4,044	$4,014	0.7%
Homeowners	1,956	1,789	9.3
Commercial multiple-peril	563	504	11.7
Commercial automobile	505	388	30.2
General liability	293	265	10.6
Workers compensation	168	166	1.2
Commercial property	126	119	5.9
Life and health	121	118	2.5
Other[1]	304	327	(7.0)
Total NWP	$8,080	$7,690	5.1%

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

NWP for the three months ended March 31, 2023 was $8.080 billion, an increase of $390 million over the same period in 2022. The acquisition of SAM on March 1, 2022 resulted in two additional months of topline production for U.S. personal lines and U.S. business lines in 2023 compared to the same period last year. Additionally, the acquisition of AmGeneral on July 28, 2022 provided a full quarter of additional production in East compared to the same period last year.

The remaining increase primarily reflects:

- U.S. personal lines driven by an increase in average written premium due to rate actions to offset rising personal lines severity and frequency trends.
- U.S business lines driven by an increase in average written premium due to an increase in endorsements and exposure.
- The West region driven by growth in private passenger auto in Brazil and Andes driven by rate actions to offset rising severity and frequency trends and favorable unit growth.
- The East region driven by strong organic results in India over the same period last year.

Partially offset by:

- Targeted actions across the U.S. to reduce new business growth to address rising severity and frequency trends.
- The impact of foreign exchange as many international currencies weakened versus the U.S. dollar, most notably the euro, the Colombian peso, and the Chinese yuan.

Results of Operations – Global Retail Markets

	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Revenues	$8,790	$7,793	12.8%
Underlying PTOI	$616	$607	1.5
Catastrophes	(892)	(361)	147.1
Net incurred losses attributable to prior years[1]	26	3	NM
Pre-tax operating (loss) income	($250)	$249	NM

1 Net of earned premium and reinstatement premium attributable to prior years of $8.7 million for the first three months ended March 31, 2023

NM = Not Meaningful

Pre-tax operating (loss) income for the three months ended March 31, 2023 was ($250) million versus $249 million for the same period in 2022. Underlying pre-tax operating income was $616 million, an increase of $9 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 U.S. personal lines and U.S. business lines in 2023 compared to the same period last year. Additionally, the acquisition of AmGeneral on July 28, 2022 resulted in a full quarter of additional loss exposure, earned premium, and expenses in East compared to the same period last year.
The increase in underlying pre-tax operating income primarily reflects:

- Higher average written premium from rate actions to offset rising personal lines frequency and severity trends.

Partially offset by:

- Elevated non-catastrophe losses in the U.S. driven by personal auto due to increased severity and frequency and personal property due to higher severity.

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

- Additional catastrophe loss exposure from the previously mentioned SAM acquisition.
- Higher-than-expected catastrophe losses in the U.S. driven by elevated severity and frequency of events in Q1 2023 versus Q1 2022.

Partially offset by:

- The changes to underlying PTOI mentioned above
- Favorable net incurred losses attributed to prior year in WEM related to prior accident years that have favorably developed.

Revenues for the three months ended March 31, 2023 were $8.790 billion, an increase of $997 million over the same period in 2022. The increase primarily reflects:

- Higher earned premium due to the topline impacts previously discussed.

Claims, benefits, and expenses for the three months ended March 31, 2023 were $9.009 billion, an increase of $1.430 billion over the same period in 2022. The increase primarily reflects:

- Additional claims, benefits, and expenses from the previously mentioned acquisitions of SAM and AmGeneral.
- Higher-than-expected catastrophe losses in the U.S. driven by elevated severity and frequency of events in Q1 2023 versus Q1 2022.
- Higher U.S. personal lines non-catastrophe losses driven by elevated frequency and severity trends.

Partially offset by:

- Lower advertising spend as we take actions to limit new business production.

	Three Months Ended March 31,		
GLOBAL RETAIL MARKETS	**2023**	**2022**	**Change (Points)**
Combined ratio			
Claims and claim adjustment expense ratio	66.6%	65.4%	1.2
Underwriting expense ratio	27.8	28.1	(0.3)
Underlying combined ratio	94.4	93.5	0.9
Catastrophes	10.7	4.8	5.9
Net incurred losses attributable to prior years[1]	(0.3)	-	(0.3)
Total combined ratio	104.8%	98.3%	6.5

1 Net of earned premium and reinstatement premium attributable to prior years of $8.7 million for the first three months ended March 31, 2023.

The Global Retail Markets underlying combined ratio for the three months ended March 31, 2023 was 94.4%, an increase of 0.9 points over the same period in 2022. The increase primarily reflects:

- Increase in the claims and claim adjustment expense ratio due to higher U.S. non-catastrophe losses in private passenger auto, personal property, and business lines.

Partially offset by:

- Decrease in the underwriting expense ratio driven by scale benefits of earned rate actions and reduced advertising spend.

Including the impact of catastrophes, net incurred losses attributable to prior years, the total combined ratio for the three months ended March 31, 2023 was 104.8%, an increase of 6.5 points over the same period in 2022. The increase primarily reflects:

- Previously mentioned unfavorable catastrophe losses driven by elevated severity and frequency of events in Q1 2023 versus Q1 2022.
- Previously mentioned increase in the underlying combined ratio.

Partially offset by:

- Favorable net incurred losses attributed to prior year in WEM related to prior accident years that have favorably developed.

GLOBAL RISK SOLUTIONS

Overview – Global Risk Solutions

Global Risk Solutions ("GRS") offers a wide array of property, casualty, specialty and reinsurance products and services distributed through brokers and independent agents 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.
- 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.
- Other Global Risk Solutions primarily consists of internal reinsurance programs, Ironshore international entities and a large global inland marine program.

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 March 31,		
$ in Millions	**2023**	**2022**	**Change**
North America	$1,459	$1,559	(6.4%)
Liberty Mutual Reinsurance	1,173	902	30.0
Liberty Specialty Markets	745	872	(14.6)
Global Surety	354	333	6.3
Other Global Risk Solutions	84	288	(70.8)
Total NWP	$3,815	$3,954	(3.5%)
Foreign exchange effect on growth			(1.6)
NWP growth excluding foreign exchange[1]			(1.9%)

1 Determined by assuming constant foreign exchange rates between periods.

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

	Three Months Ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Reinsurance	$1,173	$902	30.0%
Specialty insurance[1]	942	1,086	(13.3)
Casualty[2]	423	548	(22.8)
Surety	354	333	6.3
Workers Compensation	314	318	(1.3)
Commercial property	252	260	(3.1)
Commercial automobile	252	193	30.6
Inland marine[3]	148	147	0.7
Commercial multiple-peril	20	27	(25.9)
Other reinsurance	(63)	140	NM
Total NWP	$3,815	$3,954	(3.5%)

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.
NM = Not Meaningful

NWP for the three months ended March 31, 2023, was $3.815 billion, a decrease of $139 million from the same period in 2022. The decrease primarily reflects:

- Higher cessions due to higher volume on direct written business, increase in reinsurance costs and more coverage being purchased.
- De-risking of the portfolio in unprofitable and economically challenging products.
- Unfavorable foreign exchange due to strengthening of the U.S. dollar.
- Lower premium from business that is non-renewable.

Partially offset by:

- Renewal rate increases across most lines of business, totaling 11.4%.
- Growth in lines with inflation-sensitive exposure bases and premium audits.

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

Results of Operations – Global Risk Solutions

	Three months ended March 31,		
$ in Millions	**2023**	**2022**	**Change**
Revenues	$3,891	$3,794	2.6%
Underlying PTOI	518	551	(6.0)
Catastrophes	(149)	(302)	(50.7)
Net incurred losses attributable to prior years[1]	(85)	(27)	NM
Pre-tax operating income	$284	$222	27.9%

1 Net of earned premium and reinstatement premium attributable to prior years of ($3) million for the three months ended March 31, 2023, and $8 million for the same period in 2022.
NM = Not Meaningful

Pre-tax operating income for the three months ended March 31, 2023 was $284 million, an increase of $62 million over the same period in 2022. Underlying pre-tax operating income for the three months ended March 31, 2023 was $518 million, a decrease of $33 million from the same period in 2022. The decrease in underlying pre-tax operating income primarily reflects:

- Higher expenses due to an increase in employee related costs.
- A worker's compensation surplus refund from the state of Minnesota in 2022 that did not recur.

Partially offset by:

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

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 due to an IBNR estimate for the Russia-Ukraine conflict that did not recur in 2023.

Partially offset by:

- The changes to underlying PTOI mentioned above.
- Unfavorable prior accident year strengthening primarily due to development of estimated ultimates for a prior year catastrophe and large loss event.

Revenues for the three months ended March 31, 2023 were $3.891 billion, an increase of $97 million over the same period in 2022. The increase primarily reflects:

- Higher premium earned due to growth in the second half of last year.
- Earnings from prior year writings on multi-year policies.
- Higher net investment income.

Claims, benefits and expenses for the three months ended March 31, 2023 were $3.607 billion, an increase of $16 million over the same period in 2022. The increase primarily reflects:

- Higher expenses due to an increase in employee related costs.
- Unfavorable prior accident year strengthening.

Partially offset by:

- Lower current year catastrophe losses.

	Three Months Ended March 31,		
GLOBAL RISK SOLUTIONS	**2023**	**2022**	**Change (Points)**
Combined Ratio			
Claims and claim adjustment expense ratio	60.6%	60.8%	(0.2)
Underwriting expense ratio	30.3	29.4	0.9
Dividend ratio	0.1	0.1	-
Underlying combined ratio	91.0	90.3	0.7
Catastrophes	4.2	8.7	(4.5)
Net incurred losses attributable to prior years[1]	2.3	0.7	1.6
Total combined ratio	97.5%	99.7%	(2.2)

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

The Global Risk Solutions underlying combined ratio for the three months ended March 31, 2023 was 91.0%, an increase of 0.7 points over the same period in 2022. The increase primarily reflects:

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

Partially offset by:

- Higher premium earned due to growth in the second half of last year.

Including the impact of catastrophes and net incurred losses attributable to prior years, the total combined ratio for the three months ended March 31, 2023 was 97.5%, a decrease of 2.2 points from the same period in 2022. The decrease primarily reflects:

- Lower current year catastrophe losses.

Partially offset by:

- The changes to underlying combined ratio mentioned above.
- Unfavorable prior accident year strengthening.

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 U.S. 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 Global 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 U.S. 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 March 31,		
$ in Millions	**2023**	**2022**	**Change**
Reinsurance, net	$9	($75)	NM
Workers compensation[1]	(15)	1	NM
Other	(2)	(3)	33.3
Total NWP	($8)	($77)	89.6%

1 Booked as billed adjustment.
NM = Not Meaningful

NWP for the three months ended March 31, 2023 was ($8) million, an increase of $69 million over the same period in 2022. The increase primarily reflects:

- 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 March 31,		
$ in Millions	**2023**	**2022**	**Change**
Revenues	$79	$287	(72.5%)
Underlying pre-tax operating income (loss) before limited partnerships income	5	(92)	NM
Catastrophes	14	7	100.0
Net incurred losses attributable to prior years:			
-Asbestos and environmental[1]	-	-	-
-All other[1,2]	8	13	(38.5)
Pre-tax operating income (loss) before limited partnerships income	27	(72)	NM
Limited partnership (loss) income[3]	(84)	365	NM
Pre-tax operating (loss) income	($57)	$293	NM

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 months ended March 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

Pre-tax operating (loss) income for the three months ended March 31, 2023 was a loss of $57 million, versus income of $293 million for the same period in 2022. Underlying pre-tax operating income before limited partnerships income (loss) was $5 million versus ($92) 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 is primarily reflects:

- Lower limited partnerships income.

Revenues for the three months ended March 31, 2023 were $79 million, a decrease of $208 million from 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.

Net premium earned for the three months ended March 31, 2023 was ($44) million, an increase of $1 million over the same period in 2022.

Net investment income including limited partnerships income for the three months ended March 31, 2023 was $160 million, a decrease of $262 million from the same period in 2022. The decrease primarily reflects:

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

Net realized losses for the three months ended March 31, 2023 were $48 million, an decrease of $43 million from the same period in 2022.
The net realized losses in the current period were primarily impacted by:

- $38 million net losses on fixed maturity sales.
- $12 million impairments on fixed maturity holdings.

The prior period was impacted by:

- $160 million net change in equity unrealized losses.
- $50 million of net losses on derivatives.
- $114 million of net losses on fixed maturity sales.

Partially offsetting losses was:

- $199 million of net change in unrealized gains on energy holdings.

Fee and other revenues for the three months ended March 31, 2023 were $11 million, an increase of $10 million over the same period in 2022.

Claims, benefits, and expenses for the three months ended March 31, 2023 were $184 million, an increase of $99 million over the same period in 2022. The increase primarily reflects:

- Higher employee related costs.

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 March 31, 2023 and December 31, 2022:

Invested Assets by Type	**As of March 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	$69,671	67.9%	$66,610	65.9%
Equity securities	1,904	1.9	1,833	1.8
Limited partnership investments	12,359	12.0	12,346	12.2
Mortgage loans	3,564	3.5	3,632	3.6
Short-term investments	1,288	1.2	532	0.5
Other investments	3,549	3.5	3,062	3.0
Cash and cash equivalents	10,244	10.0	13,110	13.0
Total invested assets	$102,579	100.0%	$101,125	100.0%

Total invested assets as of March 31, 2023 were $102.579 billion, an increase of $1.454 billion or 1.4% over December 31, 2022. The increase was primarily related to an increase in fixed maturities, short-term investments and other investments, partially offset by a decrease in cash and cash equivalents.

Fixed maturities as of March 31, 2023 were $69.671 billion, an increase of $3.061 billion or 4.6% over December 31, 2022. The increase was primarily related to additional investments in U.S. treasuries and corporate bonds, partially offset by unfavorable impact of increase in treasury rates. As of March 31, 2023, included in fixed maturities are commitments to purchase various residential mortgage-backed securities at a cost and fair value of $44 million.

Equity securities as of March 31, 2023 were $1.904 billion ($1.903 billion common stock and $1 million preferred stock) versus $1.833 billion as of December 31, 2022 ($1.832 billion common stock and $1 million preferred stock), an increase of $71 million or 3.9% over December 31, 2022. Of the $1.904 billion of common stock at March 31, 2023, $677 million relates to securities associated with non-guaranteed unit linked life insurance where the policyholder bears the investment risk.

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

Limited partnership investments	**As of March 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Carrying Value**	**% of Total**	**Carrying Value**	**% of Total**
Traditional private equity	$5,357	43.4%	$5,449	44.1%
Real estate	3,094	25.0	3,050	24.7
Private credit	1,552	12.6	1,512	12.2
Natural resources – Energy	756	6.1	837	6.8
Natural resources – Other[1]	1,031	8.3	922	7.5
Other	569	4.6	576	4.7
Total limited partnership investments[2]	$12,359	100%	$12,346	100%

1 Included in Natural Resources – Other is $24 million of investments in agriculture and timber as of March 31, 2023 and December 31, 2022, and $1,007 million and $898 million of investments in energy transition and infrastructure as of March 31, 2023 and December 31, 2022, respectively.

2 Included in total limited partnership investments are $489 million and $518 million of limited partnership investments where the Company has elected fair value option of as of March 31, 2023 and December 31, 2022, respectively.

Mortgage loans as of March 31, 2023, were $3.564 billion (net of $31 million of mortgage loan allowances or 0.9% of the outstanding loan portfolio), a decrease of $68 million or 1.9% over December 31, 2022. The decrease is primarily driven by $269 million in funding partially offset by $223 million in principal reductions. The entire mortgage loan portfolio is U.S.-based. The number of loans in the portfolio decreased from 2,716 at December 31, 2022 to 2,641 at March 31, 2023.

Cash and cash equivalents as of March 31, 2023 were $10.244 billion, a decrease of $2.866 billion or 21.9 % from December 31, 2022. The decrease primarily reflects:

- Decrease in cash from investing activities

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

	As of March 31, 2023			
$ in Millions	**Amortized Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Fair Value**
U.S. government and agency securities	$8,938	$7	($626)	$8,319
Residential MBS [1]	6,446	8	(533)	5,921
Commercial MBS	4,491	10	(253)	4,248
Other MBS and ABS [2]	5,055	4	(346)	4,713
U.S. state and municipal	7,470	38	(440)	7,068
Corporate and other	36,549	123	(3,031)	33,641
Foreign government securities	5,975	31	(325)	5,681
Redeemable Preferred Stock	79	1	-	80
Total securities available for sale	$75,003	$222	($5,554)	$69,671

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

	As of December 31, 2022			
$ in Millions	**Amortized Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Fair Value**
U.S. government and agency securities	$8,885	$2	($777)	$8,110
Residential MBS [1]	6,547	5	(605)	5,947
Commercial MBS	4,457	10	(310)	4,157
Other MBS and ABS [2]	4,912	3	(396)	4,519
U.S. state and municipal	7,698	19	(586)	7,131
Corporate and other	34,868	48	(3,653)	31,263
Foreign government securities	5,788	20	(405)	5,403
Redeemable Preferred Stock	79	1	-	80
Total securities available for sale	$73,234	$108	($6,732)	$66,610

There were no allowances for credit losses on available for sale securities in accordance with ASC 326 as of March 31, 2023.

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

Mortgage & Asset-Backed Fixed Maturities by Credit Quality[1]	As of March 31, 2023							
$ in Millions	**AAA**	**AA**	**A**	**BBB**	**BB**	**B or Lower**	**Total**	**% of Total**
Residential MBS	$5,919	$-	$-	$-	$-	$2	$5,921	39.8%
Commercial MBS	3,200	631	235	70	112	-	4,248	28.5
Other MBS and ABS	2,211	660	874	654	263	51	4,713	31.7
Total	$11,330	$1,291	$1,109	$724	$375	$53	$14,882	100%
% of Total	76.1%	8.7%	7.4%	4.9%	2.5%	0.4%	100%	

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

Approximately 62.8% of the Company's mortgage and asset-backed fixed maturity portfolio is explicitly backed by the U.S. government (SBA and GNMA) or by government-sponsored entities (FNMA and FHLMC). Approximately 76.1% of the holdings are rated AAA. Included in the commercial mortgage-backed securities at March 31, 2023, were $3,293 billion in Agency CMBS and $955 million Non-agency CMBS. Included in the Other MBS and ABS at March 31, 2023 were $373 million AAA rated SBA Loans. The commercial mortgage-backed securities portfolio is well diversified and of high quality with approximately 75.3% rated AAA.

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

U.S. State and Municipal by Credit Quality[1]	**As of March 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	$1,489	21.1%	AA	$1,489	20.9%	AA
Local general obligation	1,216	17.2	AA	1,234	17.3	AA
Revenue	4,227	59.8	A	4,278	60.0	A
Pre-refunded	136	1.9	AAA	130	1.8	AAA
Total U.S. state and municipal	$7,068	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 March 31, 2023 and December 31, 2022 were $136 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 March 31, 2023 and December 31, 2022:

Fixed Maturities by Credit Quality[1]	**As of March 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Fair Value**	**% of Total**	**Fair Value**	**% of Total**
AAA	$22,432	32.2%	$21,970	33.0%
AA+, AA, AA-	8,739	12.5	8,481	12.7
A+, A, A-	17,157	24.6	15,533	23.3
BBB+, BBB, BBB-	16,067	23.1	15,408	23.1
Total investment grade	64,395	92.4	61,392	92.1
BB+, BB, BB-	2,571	3.6	2,642	4.0
B+, B, B-	2,271	3.3	2,143	3.2
CCC or lower	259	0.4	261	0.4
Unrated[2]	175	0.3	172	0.3
Total below-investment grade	5,276	7.6	5,218	7.9
Total fixed maturities	$69,671	100.0%	$66,610	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 March 31, 2023.

The following table summarizes available for sale fixed maturity securities by contractual maturity at March 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 March 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Fair Value**	**% of Total**	**Fair Value**	**% of Total**
One year or less	$2,825	4.1%	$2,238	3.3%
Over one year through five years	24,270	34.8	22,483	33.8
Over five years through ten years	20,178	28.9	19,479	29.2
Over ten years	7,516	10.8	7,787	11.7
MBS and ABS	14,882	21.4	14,623	22.0
Total fixed maturities	$69,671	100.0%	$66,610	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 March 31, 2023 was 4.2 years.

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 March 31, 2023 and December 31, 2022 that are not deemed to be other-than-temporarily impaired:

	As of March 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**
U.S. Government and agency securities	($156)	$2,794	($470)	$4,790
Residential MBS	(61)	1,216	(472)	4,434
Commercial MBS	(74)	1,860	(179)	2,179
Other MBS and ABS	(24)	617	(322)	3,817
U.S. state and municipal	(28)	1,310	(412)	3,848
Corporate and other	(472)	7,908	(2,559)	20,735
Foreign government securities	(31)	1,228	(294)	3,307
Total securities available for sale	($846)	$16,933	($4,708)	$43,110

	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**
U.S. Government and agency securities	($448)	$5,338	($329)	$2,499
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
U.S. state and municipal	(284)	4,374	(302)	1,664
Corporate and other	(1,705)	19,321	(1,948)	10,073
Foreign government securities	(123)	2,541	(282)	2,248
Total securities available for sale	($3,352)	$41,630	($3,380)	$20,708

Unrealized losses for fixed maturity securities decreased from $5.554 billion as of December 31, 2022 to $6.732 billion as of March 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 Company did not have any allowance for available for sale securities as of March 31, 2023.

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

Top 10 Issuers	As of March 31, 2023				
$ in Millions	Fixed Maturity	Equity	Short-Term	Total Exposure	% of Invested Assets
Bank of America Corp	$731	$-	$-	$731	0.71%
JP Morgan Chase & Co	714	-	-	714	0.71
Morgan Stanley	713	-	-	713	0.69
Citigroup Inc	682	-	-	682	0.66
Goldman Sachs Group Inc	656	-	-	656	0.64
Government of Brazil	463	-	167	630	0.61
Government of Canada	581	-	34	615	0.60
Government of United Kingdom	561	-	-	561	0.55
Wells Fargo & Co	476	-	-	476	0.46
Government of Australia	398	-	-	398	0.39
Total	$5,975	$-	$201	$6,176	6.02%

Top 10 Sectors	As of March 31, 2023				
$ in Millions	Fixed Maturity	Equity	Short-Term	Total Exposure	% of Invested Assets
Banking	$8,860	$5	$280	$9,145	8.92%
Foreign Government	4,123	-	618	4,741	4.62
Real Estate	776	3,332	-	4,108	4.00
Technology	2,132	494	6	2,632	2.57
Electric Utility	1,906	432	-	2,338	2.28
Insurance	1,685	77	-	1,762	1.72
Healthcare	1,190	368	-	1,558	1.52
US Municipal - State & US Territory	1,557	-	-	1,557	1.52
Independent Energy	533	783	-	1,316	1.28
Food and Beverage	1,247	47	-	1,294	1.26
Total	$24,009	$5,538	$904	$30,451	29.69%

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

As of March 31, 2023, investments in the energy sector accounted for $3.142 billion or 3.1% 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 $1.963 billion, bonds that were rated below investment grade of $394 million, publicly traded equity securities of $2 million, and natural resources partnerships and other equity method investments of $783 million. Agriculture and timber investments consist of natural resource partnerships of $24 million. In addition, the Company has direct investments in agriculture and timber of $199 million and oil and gas wells of $4 million which are included in other assets on the Consolidated Balance Sheets.

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

Unfunded Commitments	**As of March 31, 2023**		**As of December 31, 2022**	
$ in Millions	**Total**	**% of Total**	**Total**	**% of Total**
Traditional private equity	$2,355	26.8%	$2,337	27.3%
Real Estate	2,771	31.5	3,029	35.4
Private Credit	2,146	24.4	1,867	21.8
Natural resources – Energy	19	0.2	33	0.4
Natural resources – Energy transition and infrastructure	1,409	16.0	1,197	13.9
Natural resources – Timber and agriculture	15	0.2	24	0.3
Other	79	0.9	80	0.9
Total unfunded commitments	$8,794	100.0%	$8,567	100.0%

Unfunded commitments as of March 31, 2023 were $8.794 billion, an increase of $227 million over December 31, 2022. The increase is primarily reflects new commitments net of contributions related to private credit and energy transition and infrastructure, partially offset by a decrease in real estate. The unfunded energy investment commitments at March 31, 2023 and December 31, 2022 of $19 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 March 31, 2023 the amount of the liability for expected credit losses of unfunded commitments was $5 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"), SAM, State Auto Property & Casualty Insurance Company ("SPC") and Rockhill Insurance Company ("RIC") are members of the Federal Home Loan Bank ("FHLB"). On December 29, 2022, Safeco Insurance Company of America ("SICOA") and Ohio Casualty Insurance Company ("OCIC"), became members of FHLB Boston. The Company has $300 million of Federal Home Loan Bank borrowings with maturity dates through 2032. As of March 31, 2023, the outstanding Federal Home Loan Bank borrowings are fully collateralized. Ironshore Indemnity Insurance ("III") and Ironshore Specialty Insurance Company ("ISIC") memberships were cancelled on February 24th and 25th, 2020. III's membership was cancelled effective on February 9, 2022. For ISIC there is a five-year waiting period for final cancellation of membership, so the effective date of its membership cancellation will be February 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 March 31, 2023 (including cash and cash equivalents) totaled $102.579 billion.

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

Short-term debt:

$ in Millions	**As of March 31, 2023**	**As of December 31, 2022**
4.25% Notes, due 2023[1]	$547	$547
1.75% €500 Million Notes, due 2024[1]	543	-
Total short-term debt	$1,090	$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 March 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	815	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	543	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]	543	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	10,057	10,556
Unamortized discount	(433)	(437)
Long-term debt excluding unamortized debt issuance costs	9,624	10,119
Unamortized debt issuance costs	(65)	(66)
Total long-term debt	$9,559	$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 December 15, 2022, $40 million of Rockhill Holding Company ("RHC") Notes were redeemed.

On December 2, 2022, Liberty Mutual Group, Inc. ("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 State Auto Financial Corporation ("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 $1,000 million 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 months ended March 31, 2023 was $135 million, an increase of $13 million over the same period 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 March 31, 2023, the Company, through its downstream subsidiaries LMGI and LMFE, had $9.7 billion and $543 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, 2022) and 2023 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	**2022**	**2021**	**2023**	**2023**
LMIC	361%	389%	$2,090	$16
LMFIC	397%	560%	$-	$4
EICOW	400%	531%	$-	$-
SAM	2,178%	414%	$113	$-

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 three months ended March 31, 2023. Available dividend capacity as of March 31, 2023 is calculated as 2023 dividend capacity less dividends paid for the preceding 12 months. Dividends paid April 1, 2022 through March 31, 2023 for LMIC, LMFIC, EICOW and SAM were $65 million, $385 million, $330 million and zero 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 months ended March 31, 2023, LCS recorded $122 million 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 March 31, 2023**	**As of December 31, 2022**
Total long-term debt	$9,559	$10,053
Unamortized discount and debt issuance costs	(498)	(503)
Total long-term debt excluding unamortized discount and debt issuance costs	$10,057	$10,556
Total equity excluding accumulated other comprehensive income (loss)	$29,927	$30,038
Total capital excluding accumulated other comprehensive income (loss) [1]	$39,984	$40,594
Debt-to-capital capitalization excluding accumulated other comprehensive income (loss) [1]	25.2%	26.0%
Statutory surplus	$26,884	$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 25.2% at March 31, 2023 was within the Company's target range.

REINSURANCE

Reinsurance Recoverables

The Company reported reinsurance recoverables of $18.889 billion and $18.817 billion at March 31, 2023 and December 31, 2022, respectively, net of allowance for credit losses of $142 million and $140 million, respectively. Included in these balances are $1.141 billion and $1.022 billion of paid recoverables and $17.890 billion and $17.935 billion of unpaid recoverables (including retroactive reinsurance), respectively.

S&P Rating[1]	**As of December 31, 2022**			
$ in Millions	**Gross Recoverables**[2]	**Collateral Held**[3]	**Net Recoverables**[4]	**% of Total Net Recoverables**
Rated Entities				
AAA	$ -	$ -	$ -	-
AA+, AA, AA-	7,988	6,676	2,821	25%
A+, A, A-	5,118	660	4,535	40%
BBB+, BBB, BBB-	-	-	-	-
BB+ or below	-	-	-	-
Subtotal	13,106	7,336	7,356	65%
Pools & Associations				
State mandated involuntary pools and associations	2,991	-	2,991	26%
Voluntary	178	123	174	2%
Subtotal	3,169	123	3,165	28%
Non-Rated Entities[5]				
Captives & fronting companies	1,611	1,844	309	3%
Other	1,071	1,971	425	4%
Subtotal	2,682	3,815	734	7%
Grand Total	$18,957	$11,274	$11,255	100%

1 Standard & Poor's ratings are as of December 31, 2022.

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, 2022		
$ in Millions	Gross Recoverables[2]	Collateral Held[3]	Net Recoverables[4]
1. Berkshire Hathaway Insurance Group	$5,059	$5,900	$638
2. Swiss Re Group	1,624	545	1,083
3. Nationwide Group	1,141	1	1,140
4. Everest Re Group	842	263	630
5. Lloyd's of London	584	-	584
6. Partner Re Group	473	86	387
7. Munich Re Group	437	11	427
8. Renaissance Re Holdings Group	344	119	231
9. CUMIS Insurance Society Group	337	-	337
10. Enstar Group Ltd	309	335	5
11. Hannover Re Group	309	71	238
12. Stonefort Reinsurance S.A.	292	359	-
13. Markel Corp	277	2	275
14. Exchange Indemnity Company	245	112	134
15. Chubb Ltd.	220	132	136
State Mandated Involuntary pools and associations	2,991	-	2,991
Voluntary pools and associations	178	123	174
All Other	3,295	3,215	1,845
Total Reinsurance Recoverables	$18,957	$11,274	$11,255

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 94% 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, 2022. Collateral held against outstanding gross reinsurance recoverable balances was $11.274 billion at December 31, 2022.

The remaining 6% 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, 2022.

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 GRM U.S. 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 Global Retail Markets U.S. 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 $57 million and $53 million at March 31, 2023 and December 31, 2022, respectively. As of March 31, 2023 and December 31, 2022, deferred gains were $215 million and $218 million. Limits remaining on the contract as of March 31, 2023 were $543 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 March 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 U.S. 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 deferred gain amortization of $15 million and $15 million at March 31, 2023 and December 31, 2022, respectively. As of March 31, 2023 and December 31, 2022, deferred gains were $23 million and $26 million. Limits remaining on the contract in total, and for asbestos and environmental liabilities, respectively, were $3.177 billion and $368 million as of March 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 $3.1 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' U.S. 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 U.S. 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 U.S., 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 U.S., 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 U.S. and earthquakes covering U.S. 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, 2022, the Company renewed coverage for 90% of approximately $52 million excess of $22 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.

The Company participates in the Reinsurance to Assist Policyholders ("RAP") program, a state administered catastrophe fund that provides reimbursement to insurers for a portion of their Florida hurricane losses. Limits, premium and reimbursements from RAP apply on a per company basis. If losses fall disproportionately on one insurance entity within the Company, recovery from RAP could be less than anticipated. On July 15, 2022, the Company received coverage for 90% of approximately $5 million excess of $14 million.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with 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, including asbestos and environmental liability reserves and loss sensitive premium attributable to prior years, (2) reinsurance recoverables and associated uncollectible allowance, (3) fair value determination and other-than-temporary impairments of the investment portfolio and direct working interests in oil and gas properties, (4) valuation 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, 2022 Audited Consolidated Financial Statements and footnote 1 in the Company's March 31, 2023 Unaudited 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, 2022 Audited Consolidated Financial Statements and footnote 6 in the Company's March 31, 2023 Unaudited 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, 2022 Audited Consolidated Financial Statements and footnote 6 in the Company's March 31, 2023 Unaudited 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, 2022 Audited Consolidated Financial Statements and footnote 4 in the Company's March 31, 2023 Unaudited 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 March 31, 2023, excluding other assets, the Company reflected $9.364 billion (12.6%) as level 1 (quoted prices in active markets) primarily consisting of U.S. 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 March 31, 2023, the Company reported $62.546 billion (83.9%) as level 2, consisting primarily of fixed maturity securities. Finally, the Company reported $2.614 billion (3.5%) 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, 2022 Audited Consolidated Financial Statements and footnote 9 in the Company's March 31, 2023 Unaudited 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, 2022 Audited Consolidated Financial Statements and footnote 3 in the Company's March 31, 2023 Unaudited 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 March 31, 2023, the Company has two reporting units – Global 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 $21 million of intangibles impairments related to Ironshore distribution channel in 2022.

For additional discussion, please refer to footnote 1 in the Company's December 31, 2022 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 insurance loss reserves, unearned premiums, employee benefits, net unrealized gains and losses on investments, and deferred policy acquisition costs.

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. For the three-month period ended March 31, 2023, changes in market conditions resulted in a $37 million partial release of the valuation allowance**.** The establishment and partial release of this valuation allowance were allocated to other comprehensive income.

For additional discussion, please refer to footnote 8 in the Company's December 31, 2022 Audited Consolidated Financial Statements and footnote 7 in the Company's March 31, 2023 Unaudited 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, 2022 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 78th on the Fortune 100 list of largest corporations in the U.S. based on 2021 revenue. As of December 31, 2022, LMHC had $160.316 billion in consolidated assets, $138.108 billion in consolidated liabilities, and $50.0 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 50,000 people in 29 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 web site at www.libertymutualgroup.com/investors