



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

Quarter Ended March 31, 2020

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, 2020 and 2019. 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, 2019 Audited Consolidated Financial Statements and March 31, 2020 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).

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Cautionary Statement Regarding Forward Looking Statements

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

Some of the factors that could cause actual results to differ include, but are not limited to the following: the occurrence of catastrophic events (including terrorist acts, 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 cyclical nature 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 federal 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. 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.

The United Kingdom's withdrawal from the European Union occurred on January 31, 2020. That date also marks the beginning of a transition period during which the United Kingdom will remain in the EU's customs union and single market but will negotiate with the European Union regarding the terms of the future UK-EU relationship. The withdrawal could have a negative impact on economic conditions in the United Kingdom and could result in unintended consequences in other countries as well. The Company acknowledges that there are risks and uncertainties associated with the United Kingdom's withdrawal from the European Union and has developed a course of action related to the withdrawal but will continue to monitor the negotiations as they develop.

In December 2019, a novel coronavirus commonly referred to as "COVID-19" surfaced in Wuhan, China. The outbreak has since spread to other countries, including the United States, and efforts to contain the spread of this coronavirus have intensified and are ongoing. The outbreak and any preventative or protective actions that governments, other third parties or we may take in respect of the coronavirus may result in a continued period of

business disruption and reduced operations. The extent to which the coronavirus impacts our future results will depend on developments which are highly uncertain and cannot be predicted, including litigation developments, legislative or regulatory actions and intervention, the length and severity of the coronavirus (including of second waves) and the actions of government actors to contain the coronavirus or treat its impact, among others. Possible effects on our business and operations include: disruptions to business operations resulting from working from home or from closures of our corporate or sales offices and the offices of our agents and brokers and quarantines of employees, customers, agents, brokers and suppliers in areas affected by the outbreak; disruptions to business operations resulting from travel restrictions and reduced consumer spending on new homes or new automobiles which could reduce demand for insurance; disruptions to business operations resulting from our customers having lower payrolls and revenues which could have an impact on insurance revenue; increased claims related to trade credit, general liability, workers compensation, and event cancellation coverage, among others; executive or legislative mandates or court decisions expanding property insurance policy coverage to cover business interruptions resulting from COVID-19 notwithstanding any exclusions set forth in such policies or conditions precedent generally required for liability under such policies; and disruption of the financial markets resulting in reductions in the value of our investment portfolio. A significant rise in the number of COVID-19 infections, infections in a wide range of countries and regions, or a prolongation of the outbreak, could create an adverse economic effect on the Company.

Furthermore, as a consequence of the COVID-19 stay at home orders in effect throughout much of the United States and abroad, policyholders are driving fewer miles than normal. Accordingly, on April 7, 2020, the Company announced its Personal Auto Customer Relief Refund (“PACRR”) plan which gives personal auto insurance customers a 15% refund on two months of their annual 2020 premium. On April 23, 2020, the Company launched its Liberty Mutual Businessowners Policy (“BOP”) Refund for small commercial customers issuing a 15% refund of two months of premium for all BOP policies. In addition, late fee charges were automatically stopped and cancellations due to non-payment were temporarily paused for both personal auto and home customers from March 23 through at least May 22, 2020. The Company will work with individual customers to extend payment dates if needed and provide personalized support on an ad hoc basis. All personal auto policy coverages have been expanded to cover customers who use their personal vehicles to deliver food and medicine even though some of our standard personal auto policies typically exclude such coverage. This additional protection will remain in effect for all personal auto policies in all states for losses occurring from March 16 to May 22, 2020 and reported by July 1, 2020. The aggregate payments under the PACRR and BOP customer support programs will be approximately \$300 million.

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 2020 Unaudited Consolidated Financial Statements.

Consolidated Results of Operations

\$ in Millions	Three Months Ended March 31,		
	2020	Revised 2019 ²	Change
Net written premium	\$10,039	\$9,699	3.5%
Pre-tax operating income before partnerships, LLC and other equity method income	705	660	6.8
Partnerships, LLC and other equity method income	100	83	20.5
Net realized (losses) gains	(247)	250	NM
Unit linked life insurance	114	(61)	NM
Ironshore Inc. ("Ironshore") acquisition & integration costs	(4)	(6)	(33.3)
Restructuring costs	(2)	(2)	-
Discontinued operations, net of tax	-	(50)	(100.0)
Consolidated net income	519	669	(22.4)
Less: Net income attributable to non-controlling interest	-	-	-
Net income attributable to LMHC	519	669	(22.4)
Net income attributable to LMHC excluding unrealized impact ¹	803	465	72.7
Cash flow provided by continuing operations	\$419	\$235	78.3%

1 Excludes unrealized gains on equity securities, unit linked life insurance, and the corresponding tax impact.

2 2019 amounts were restated due to a pension accounting policy change, which is described further in Critical Accounting Estimates.
NM = Not Meaningful

	Three Months Ended March 31,		
	2020	2019	Change (Points)
Combined ratio before catastrophes ¹ and net incurred losses attributable to prior years ²	92.8%	92.9%	(0.1)
Combined ratio ³	96.3%	96.3%	-

1 Catastrophes are defined as a natural catastrophe or terror event 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.

2 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.

3 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 Ironshore acquisition and integration costs are not included in the combined ratio.

	As of March 31,	As of December 31,	
\$ in Millions	2020	Revised 2019 ¹	Change
Short-term debt	\$-	\$-	-%
Long-term debt	8,161	8,200	(0.5)
Total debt	\$8,161	\$8,200	(0.5%)
Unassigned equity	\$25,469	\$24,950	2.1%
Accumulated other comprehensive loss	(2,373)	(1,359)	74.6
Non-controlling interest	26	28	(7.1)
Total equity	\$23,122	\$23,619	(2.1%)

¹ 2019 amounts were restated due to a pension accounting policy change, which is described further in Critical Accounting Estimates.

Subsequent Events

On May 7, 2020, Liberty Mutual Group Inc. (“LMGI”) issued \$500 million of Senior Notes due 2060 (the “2060 Notes”). Interest is payable semi-annually at a fixed rate of 3.950%. The 2060 Notes mature on May 15, 2060.

On May 7, 2020, LMGI exchanged \$246 million par value of the 2060 Notes (the “2020 Exchange Offer”) for \$20 million of its 6.500% Senior Notes due 2042, \$28 million of its 7.000% Senior Notes due 2034, \$30 million of its 6.500% Senior Notes due 2035, \$50 million of its 4.850% Senior Notes due 2044, and \$118 million of its 4.500% Senior Notes due 2049 (all such series of Senior Notes subject to the exchange offer, the “Target Notes”). LMGI paid an aggregate of \$62 million cash consideration, including accrued and unpaid interest, for the Target Notes accepted for exchange.

Concurrently with such exchange offer, LMGI completed a tender offer for the Target Notes with investors not eligible to participate in the 2020 Exchange Offer for an aggregate cash consideration of \$2 million, including accrued and unpaid interest, for the tender of \$1 million of its 6.500% Senior Notes due 2035 and a nominal amount of its 6.500% Senior Notes due 2042.

Management has assessed material subsequent events through May 14, 2020, 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 partnerships, LLC and other equity method 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. PTOI before partnerships, LLC and other equity method 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 partnerships, LLC and other equity method 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 and partnerships, LLC and other equity method investment 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 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.

Beginning in March 2020, COVID-19 and related economic conditions began to have an impact on the Company's results of operations. While immaterial on the insurance operations for the first quarter, the Company anticipates there will be a meaningful impact on revenue and underwriting results in the coming quarters as a result of increased claims and related economic conditions.

On December 24, 2019, the Company’s subsidiary, Liberty UK and Europe Holdings Limited (“UKH”), entered into an agreement to sell its entire 99.99% interest in its Russian insurance affiliate, Liberty Insurance (JSC), to PJSC Sovcombank. The transaction closed on February 6, 2020.

On November 5, 2019, the Company entered into a reinsurance transaction with National Indemnity Company (“NICO”), a subsidiary of Berkshire Hathaway Inc, on a combined aggregate excess of loss agreement for certain Global Retail Markets U.S. Business Lines and Global Risk Solutions National Insurance workers compensation liabilities, commercial auto liability and general liability excluding umbrella and warranty. This agreement is defined as the NICO Casualty Reinsurance Transaction. The first layer of the contract attaches at \$300 million below applicable held reserves at inception of \$8.341 billion of combined aggregate reserves. The second layer of the contract provides adverse development coverage for \$1.000 billion above a retention equal to \$8.741 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. See the Reinsurance section for additional detail.

On October 2, 2019, the Company completed the acquisition of the business and operations of Nationale Borg, Nationale Borg Reinsurance, and AmTrust Insurance Spain. The transaction is not material to the Company.

On September 27, 2019, LMGI exchanged \$1.25 billion par value of Senior Notes due 2050 (the “2050 Notes”) for \$78 million of its 7.00% Senior Notes due 2034, \$170 million of its 6.50% Senior Notes due 2035, \$480 million of its 6.50% Senior Notes due 2042, \$436 million of its 4.85% Senior Notes due 2044, \$67 million of its 7.80% Junior Subordinated Notes due 2087 (the “2087 Notes”) and \$17 million of its 10.75% Junior Subordinated Notes due 2088. LMGI paid an aggregate of \$411 million cash consideration, including accrued and unpaid interest, for the existing

notes accepted for exchange. Interest on the 2050 Notes is payable semi-annually at a fixed rate of 3.951%. The 2050 Notes mature on October 15, 2050.

On August 23, 2019, the Company completed the sale of the Venezuelan business, Seguros Caracas de Liberty Mutual, which was previously deconsolidated in 2015.

During the second quarter of 2019, the Company completed a number of debt transactions, including the issuance of a new hybrid security, redemption of the Junior Subordinated notes due 2067, and completion of a tender offer for the 2087 Notes which was financed by cash along with a senior note issuance. These transactions are described further in “Liquidity and Capital Resources”.

On May 31, 2019, the Company completed the acquisition of the U.S. Surety business (“Insko Dico”) of AmTrust Financial Services, Inc.

On March 14, 2019, the Company concluded a strategic review of certain operations and reached an agreement to sell its investment in Pembroke Managing Agency Ltd., Visionary Underwriting Agency Ltd., Ironshore Europe Designated Activity Company, and Ironshore Corporate Capital 3 Ltd. (“certain international Ironshore entities”) to Hamilton Insurance Group. The transaction closed on August 20, 2019.

On January 28, 2019, LMGI exchanged \$1 billion par value of Senior Notes due 2029 (the “2029 Notes”) for \$270 million of its 5.00% Notes due 2021, \$277 million of its 4.95% Notes due 2022 and \$453 million of its 4.25% Notes due 2023. LMGI paid an aggregate of \$40 million cash consideration, including accrued and unpaid interest, for the existing notes accepted for exchange. Interest on the 2029 Notes is payable semi-annually at a fixed rate of 4.569%. The 2029 Notes mature on February 1, 2029.

On May 1, 2018, the Company completed the sale of Liberty Life Assurance Company of Boston (“LLAC”), which provides group disability, group life, individual life and annuity products, to Lincoln Financial Group. In connection with the Company’s May 2018 sale of LLAC to Lincoln Financial Group, the Company agreed, pursuant to the master transaction agreement, to indemnify Protective Life Corporation and Protective Life Insurance Company (together with certain of their respective affiliates, “Protective”), Lincoln and other parties against certain liabilities. In late 2018, Protective initiated informal discussions with the Company regarding potential indemnification claims (the “Initial Claims”) and in 2019 the Company began an investigation and evaluation of such Initial Claims. This investigation is ongoing. On April 30, 2019, Protective delivered to the Company a formal demand for indemnification related to the Initial Claims and in addition, demands for indemnification including matters unrelated to the Initial Claims (the “New Claims”). Based on the Company’s investigation to date of the claims generally, the Company has accrued a reserve of \$52 million, net of tax, year to date December 31, 2019, presented in discontinued operations in the Consolidated Statements of Income, which is primarily related to the Initial Claims, and may be adjusted up or down as the Company’s investigation of all claims continues. The Company intends to vigorously defend all claims.

At this time, if the Initial Claims and all of the New Claims are ultimately determined to have merit and if the monetary value of those claims were equal to the amount alleged to be due, the aggregate potential liability represented by the claims would not have a material adverse effect on the financial condition of the Company, although such aggregate potential liability may be material relative to the Company’s results of operations for a single reporting period, depending on the facts and circumstances at such time.

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 coverage distributed through brokers and independent agents globally. In Q1 2020, Global Risk Solutions combined National Insurance (NI) and North America Specialty (NAS) to form a single North America segment. This includes admitted and non-admitted property and casualty in North America. Global Risk Solutions is

organized into the following market segments: Liberty Specialty Markets, North America, Global Surety, and Other Global Risk Solutions.

Overview – Consolidated

Consolidated NWP by significant line of business was as follows:

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
Private passenger automobile	\$3,471	\$3,438	1.0%
Homeowners	1,329	1,284	3.5
Global Risk Solutions reinsurance	766	595	28.7
Global Risk Solutions specialty insurance ¹	745	748	(0.4)
Commercial multiple-peril	546	551	(0.9)
Global Risk Solutions casualty ²	508	468	8.5
Commercial automobile	500	541	(7.6)
Workers compensation	498	562	(11.4)
Global Risk Solutions other reinsurance	355	214	65.9
Surety	304	248	22.6
Commercial property	244	264	(7.6)
Global Retail Markets general liability	215	207	3.9
Global Risk Solutions inland marine	142	137	3.6
Corporate reinsurance ³	53	75	(29.3)
Other ⁴	363	367	(1.1)
Total NWP	\$ 10,039	\$ 9,699	3.5%

1 Global Risk Solutions specialty insurance includes marine, energy, construction, aviation, warranty and indemnity, directors and officers, errors and omissions, trade credit, contingent lines and other.

2 Global Risk Solutions casualty primarily includes general liability, excess & umbrella and environmental lines of business.

3 NWP associated with internal reinsurance assumed into Corporate, net of corporate external placements.

4 Primarily includes NWP from allied lines, domestic inland marine, internal reinsurance, and life and health reported within Global Retail Markets.

NWP for the three months ended March 31, 2020 was \$10.039 billion, an increase of \$340 million over the same period in 2019.

Significant changes by major line of business for the three months ended March 31, 2020 include:

- Private passenger automobile NWP increased \$33 million. The increase reflects increases in new business production in U.S. personal lines as well as organic growth in Global Retail Markets' East segment, partially offset by unfavorable results in the West segment and negative impacts of foreign exchange due to the strengthening of the U.S. dollar primarily versus the Brazilian real as compared to average rates in 2019.
- Homeowners NWP increased \$45 million. The increase reflects increases in new business production and higher property retention in U.S. personal lines.
- Global Risk Solutions reinsurance NWP increased \$171 million. The increase reflects new business growth and positive rate.
- Global Risk Solutions casualty NWP increased \$40 million. The increase reflects new business growth, positive rate and ceded reinsurance program structure changes.
- Commercial automobile NWP decreased \$41 million. The decrease reflects the impact of lower retention and new business production, partially offset by positive rate in Global Risk Solutions.
- Workers compensation NWP decreased \$64 million. The decrease reflects the impact of lower retention and new business production, partially offset by positive rate in Global Risk Solutions.
- Global Risk Solutions other reinsurance increased \$141 million. The increase reflects ceded reinsurance program structure changes, partially offset by a ceded global casualty program that was effective in Q2 2019.
- Surety NWP increased \$56 million. The increase reflects new business growth primarily due to the Amtrust acquisition which closed post first quarter of 2019.

More detailed explanations of the changes in NWP by line of business are included in the related discussion of financial results for each segment.

Consolidated NWP by business was as follows:

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
Global Retail Markets	\$6,508	\$6,503	0.1%
Global Risk Solutions	3,525	3,174	11.1
Corporate and Other	6	22	(72.7)
Total NWP	\$10,039	\$9,699	3.5%
Foreign exchange effect on growth			(1.0)
NWP growth excluding foreign exchange ¹			4.5%

¹ Determined by assuming constant foreign exchange rates between periods.

Major drivers of NWP growth were as follows:

\$ in Millions	Three Months Ended March 31,			
	2020	2019	\$ Change	Points Attribution
Components of growth:				
Domestic personal automobile	2,941	2,874	67	0.7
Domestic homeowners	1,268	1,234	34	0.4
Global Retail Markets East West (ex foreign exchange) ¹	967	944	23	0.2
Global Risk Solutions reinsurance (ex foreign exchange) ¹	774	595	179	1.8
Global Risk Solutions specialty insurance (ex foreign exchange) ¹	753	748	5	0.1
Global Risk Solutions casualty (ex foreign exchange) ¹	513	468	45	0.5
Domestic workers compensation	463	511	(48)	(0.5)
Surety (ex foreign exchange) ¹	304	243	61	0.6
Commercial property (ex foreign exchange) ¹	266	288	(22)	(0.2)
Global Risk Solutions inland marine (ex foreign exchange) ¹	143	137	6	0.1
Corporate reinsurance (ex foreign exchange) ^{1,2}	53	75	(22)	(0.2)
Global Retail Markets reinsurance (ex foreign exchange) ¹	12	-	12	0.1
Other lines	1,678	1,582	96	0.9
Foreign exchange ¹	(96)	-	(96)	(1.0)
Total NWP	10,039	9,699	340	3.5

¹ Determined by assuming constant foreign exchange rates between periods.

² NWP associated with internal reinsurance assumed into Corporate, net of corporate external placements.

Consolidated NWP by geographic distribution channels was as follows:

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
U.S.	\$7,952	\$7,780	2.2%
International excluding foreign exchange ¹	2,183	1,919	13.8
Foreign exchange ¹	(96)	-	NM
Total NWP	\$10,039	\$9,699	3.5%

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

\$ in Millions	Three Months Ended March 31,		
	2020	Revised 2019⁶	Change
Revenues	\$10,457	\$10,667	(2.0%)
PTOI before catastrophes, net incurred losses attributable to prior years and partnerships, LLC and other equity method income	\$1,024	\$978	4.7
Catastrophes ¹	(306)	(279)	9.7
Net incurred losses attributable to prior years:			
- Asbestos and environmental ²	-	(3)	(100.0)
- All other ³	(13)	(36)	(63.9)
Pre-tax operating income before partnerships, LLC and other equity method income	705	660	6.8
Partnerships, LLC and other equity method income ⁴	100	83	20.5
Pre-tax operating income	805	743	8.3
Net realized (losses) gains	(247)	250	NM
Unit linked life insurance	114	(61)	NM
Ironshore acquisition & integration costs	(4)	(6)	(33.3)
Restructuring costs	(2)	(2)	-
Pre-tax income	666	924	(27.9)
Income tax expense	147	205	(28.3)
Consolidated net income from continuing operations	519	719	(27.8)
Discontinued operations, net of tax	-	(50)	(100.0)
Consolidated net income	519	669	(22.4)
Less: Net income attributable to non-controlling interest	-	-	-
Net income attributable to LMHC	519	669	(22.4)
Net income attributable to LMHC excluding unrealized impact ⁵	\$803	\$465	72.7
Cash flow provided by continuing operations	\$419	\$235	78.3%

1 Catastrophes are defined as a natural catastrophe or terror event 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.

2 Asbestos and environmental is gross of the related adverse development reinsurance (the “NICO Reinsurance Transaction”, which is described further in Reinsurance).

3 Net of earned premium and reinstatement premium attributable to prior years of \$8 million for the three months ended March 31, 2020, and zero for the same period in 2019.

4 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 Income and revenue and expenses from direct investments in natural resources.

5 Excludes unrealized gains on equity securities, unit linked life insurance, and the corresponding tax impact.

6 2019 amounts were restated due to a pension accounting policy change, which is described further in Critical Accounting Estimates.

NM = Not Meaningful

Partnerships, LLC and Other Equity Method Income	Three Months Ended		
	March 31,		
\$ in Millions	2020	2019	Change
LP, LLC and other equity method income ¹	\$126	\$93	35.5%
Direct investment in natural resources revenues ²	85	126	(32.5)
Direct investment in natural resources expenses ³	(111)	(136)	(18.4)
Partnerships, LLC and other equity method income	\$100	\$83	20.5%

1 Included within net investment income in the accompanying Consolidated Statements of Income.

2 Included within fee & other revenues in the accompanying Consolidated Statements of Income.

3 Included within operating costs and expenses in the accompanying Consolidated Statements of Income.

Net Investment Income	Three Months Ended	
	March 31,	
\$ in Millions	2020	2019
Taxable interest income	\$445	\$453
Tax-exempt interest income	40	46
Dividends	8	11
LP, LLC and other equity method income	126	93
Commercial mortgage loans	21	19
Other investment income	6	2
Gross investment income	646	624
Investment expenses ¹	(64)	(57)
Total net investment income	\$582	\$567

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

Net Realized Gains (Losses)	Sales & Settlements	Impairments	Unrealized (Losses) Gains	Total
\$ in Millions				
Three Months Ended March 31, 2020:				
Fixed maturities	\$328	(\$15)	\$-	\$313
Equities	30	-	(426)	(396)
Derivatives	(68)	-	(57)	(125)
Other	(28)	(11)	-	(39)
Total	\$262	(\$26)	(\$483)	(\$247)
Three Months Ended March 31, 2019:				
Fixed maturities	\$1	(\$3)	\$-	(\$2)
Equities	(9)	-	325	316
Derivatives	(8)	-	(4)	(12)
Other	(33)	(17)	(2)	(52)
Total	(\$49)	(\$20)	\$319	\$250

Unrealized (Losses) Gains Related to Equity Securities ¹	Three Months Ended March 31,		
	2020	2019	Change
\$ in Millions			
Net (losses) gains recognized during the period on equity securities	(\$426)	\$323	NM
Less: Net (losses) gains recognized during the period on equity securities sold during the period	(6)	74	NM
Unrealized (losses) gains recognized during the reporting period on equity securities still held at the reporting date	(\$420)	\$249	NM

¹ Included equities and equity like securities classified as other.

NM = Not Meaningful

Pre-tax operating income before partnerships, LLC and other equity method income for the three months ended March 31, 2020 was \$705 million, an increase of \$45 million over the same period in 2019. The increase reflects profit margin on higher earned premium and lower non-catastrophe losses. The increase was partially offset by higher catastrophe losses, the resetting of the current accident year to a higher baseline related to prior year loss indications primarily within liability lines in Global Risk Solutions, and unfavorable expenses driven by increased employee-related costs, technology investments, and advertising spend.

Partnerships, LLC, and other equity method income, including operating income from direct investments in natural resources, for the three months ended March 31, 2020 was \$100 million, an increase of \$17 million over the same period in 2019. The increase reflects more favorable valuations and distributions across the LP, LLC, and other equity method investments, primarily driven by energy investments. The increase was partially offset by less favorable valuations and distributions in private capital investments. Partnership, LLC, and other equity method income is accounted for under the equity method of accounting and is typically received and reported one month to three months following the end of the reporting period. Accordingly, the adverse impact of the recent disruption in global financial markets on income from these investments is not reflected in the Company's results for the three months ended March 31, 2020.

Revenues for the three months ended March 31, 2020 were \$10.457 billion, a decrease of \$210 million from the same period in 2019. 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, 2020 was \$9.841 billion, an increase of \$307 million over the same period in 2019. 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, 2020 was \$582 million, an increase of \$15 million over the same period in 2019. The increase reflects favorable valuations and distributions across the LP, LLC, and other equity method investments, primarily driven by energy investments. The increase was partially offset by lower earned yield.

Net realized losses for the three months ended March 31, 2020 were \$247 million versus net realized gains of \$250 million for the same period in 2019. The net realized losses in the current quarter were primarily driven by a \$426 million net change in equity unrealized losses and \$125 million net losses on derivatives. This was partially offset by \$328 million gains from fixed maturity sales. The prior period was impacted by \$323 million net change in equity unrealized gains, partially offset by a \$39 million loss upon classifying certain international Ironshore entities as held for sale.

Fee and other revenues for the three months ended March 31, 2020 were \$281 million, a decrease of \$35 million from the same period in 2019. The decrease primarily reflects lower natural resource revenues.

Claims, benefits and expenses for the three months ended March 31, 2020 were \$9.899 billion, an increase of \$225 million over the same period in 2019. The increase reflects attritional losses associated with growth, the resetting of the current accident year to a higher baseline related to prior year loss indications, primarily within liability lines in Global Risk Solutions, higher current year catastrophe losses, and unfavorable expenses driven by increased insurance

operating costs due to topline growth, employee-related costs, technology investments, and advertising spend. These were partially offset by lower non-catastrophe losses.

Income tax expense on continuing operations for the three months ended March 31, 2020 was \$147 million, a decrease of \$58 million from the same period in 2019. The Company's effective tax rate on continuing operations for the three months ended March 31, 2020 was 22%, which is consistent with the same period in 2019.

Net income attributable to LMHC for the three months ended March 31, 2020 was \$519 million, a decrease of \$150 million from the same period in 2019.

Cash flow provided by continuing operations for the three months ended March 31, 2020 was \$419 million, an increase of \$184 million over the same period in 2019. The increase reflects higher premium collections and favorable catastrophe losses paid, partially offset by unfavorable underwriting expenses and non-catastrophe paid loss activity as well as decreased investment results.

CONSOLIDATED	Three Months Ended March 31,		
	2020	2019	Change (Points)
Combined ratio before catastrophes and net incurred losses attributable to prior years			
Claims and claim adjustment expense ratio	62.3%	64.3%	(2.0)
Underwriting expense ratio	30.5	28.6	1.9
Subtotal	92.8	92.9	(0.1)
Catastrophes ¹	3.1	2.9	0.2
Net incurred losses attributable to prior years:			
- Asbestos and environmental	0.2	-	0.2
- All other ²	0.2	0.5	(0.3)
Total combined ratio³	96.3%	96.3%	-

1 Catastrophes are defined as a natural catastrophe or terror event 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.

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

3 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 Ironshore acquisition and integration costs are not included in the combined ratio.

The consolidated combined ratio before catastrophes and net incurred losses attributable to prior years for the three months ended March 31, 2020 was 92.8%, a decrease of 0.1 points from the same period in 2019. The increase in the underwriting expense ratio reflects increased employee-related costs, technology investments, and advertising spend. The decrease in the claims and claim adjustment expense ratio reflects lower current year loss activity and business mix, partially offset by the resetting of the current accident year to a higher baseline based on prior year loss indications, primarily within liability lines in Global Risk Solutions.

Including the impact of catastrophes and net incurred losses attributable to prior years, the total combined ratio for the three months ended March 31, 2020 was 96.3%, no change versus the same period in 2019. Favorability from the decreases to the combined ratio mentioned above as well as lower net incurred losses attributable to prior years were completely offset by higher current year catastrophe losses.

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 1,860 licensed employee sales representatives, 810 licensed telesales counselors, independent agents, third-party producers, the Internet, 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.

West sells property and casualty, health and life insurance products and services to individuals and businesses in Brazil, Colombia, Chile, Ecuador, 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 Thailand, Singapore, Hong Kong, Vietnam, Malaysia, India, and China. Private passenger automobile insurance is the single largest line of business.

Global Retail Markets Reinsurance consists of certain internal reinsurance programs.

On August 23, 2019, the Company completed the sale of its Venezuela operations. The Company previously deconsolidated the Venezuela operations as of September 30, 2015 due to restrictive exchange control regulations significantly impacting control of the operations.

On December 24, 2019, UKH entered into an agreement to sell its entire 99.99% interest in its Russian insurance affiliate, Liberty Insurance (JSC) to PJSC Sovcombank. The transaction closed on February 6, 2020.

Global Retail Markets NWP by market segment was as follows:

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
U.S.	\$5,599	\$5,559	0.7%
West	603	662	(8.9)
East	302	282	7.1
Global Retail Markets Reinsurance	4	-	NM
Total NWP	\$6,508	\$6,503	0.1%
Foreign exchange effect on growth			(1.1)
NWP growth excluding foreign exchange ¹			1.2%

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

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

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
Private passenger automobile	\$3,471	\$3,438	1.0%
Homeowners	1,329	1,284	3.5
Commercial multiple-peril	506	507	(0.2)
Commercial automobile	365	390	(6.4)
General liability	215	207	3.9
Workers compensation	192	230	(16.5)
Life and health	108	99	9.1
Commercial property	60	70	(14.3)
Other ¹	262	278	(5.8)
Total NWP	\$6,508	\$6,503	0.1%

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, 2020 was \$6.508 billion, an increase of \$5 million over the same period in 2019. The increase was led by strong results in the U.S. driven by personal property and private passenger automobile due to increases in U.S. personal lines new business production and higher property retention. Additionally, the increase was driven by private passenger automobile results in the East market, due to strong auto results in Thailand and India. This growth was partially offset by U.S. business lines driven by commercial auto and workers compensation due to lower retention and new business production, and auto results in the West region particularly in Chile, Brazil, and Ireland. In addition, this growth was offset by the negative impacts of foreign exchange due to the strengthening of the U.S. dollar primarily versus the Brazilian real as compared to average rates in 2019.

Results of Operations – Global Retail Markets

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
Revenues	\$7,007	\$7,094	(1.2%)
PTOI before catastrophes, net incurred losses attributable to prior years and current accident year re-estimation	\$851	\$774	9.9
Catastrophes ¹	(227)	(262)	(13.4)
Net incurred losses attributable to prior years	9	36	(75.0)
PTOI	\$633	\$548	15.5%

¹ Catastrophes are defined as a natural catastrophe or terror event 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.

Pre-tax operating income for the three months ended March 31, 2020 was \$633 million, an increase of \$85 million over the same period in 2019. The increase was primarily driven by profit margin on higher earned premium due to strong 2019 topline results in the U.S. and East regions. Adding to the increase were lower non-catastrophe losses due to lower auto frequency and homeowners claim activity, and lower catastrophe losses due to a decrease in severity compared to prior year. Partially offsetting the change was an increase in insurance operating expenses.

Revenues for the three months ended March 31, 2020 were \$7.007 billion, a decrease of \$87 million from the same period in 2019. The decrease reflects a decline in unrealized and realized gains due to market valuation changes on unit linked life insurance where the policyholder bears the investment risk, and a realized loss from the sale of UKH's Russian insurance affiliate, Liberty Insurance (JSC). This is partially offset by the premium earned associated with the changes in NWP previously discussed and an increase in net investment income.

Claims, benefits and expenses for the three months ended March 31, 2020 were \$6.506 billion, an increase of \$21 million over the same period in 2019. The increase was driven by insurance operating costs in the U.S. due to topline growth and an increase in employee-related costs and advertising spend. This was partially offset by lower non-catastrophe and catastrophe losses previously discussed.

GLOBAL RETAIL MARKETS	Three Months Ended March 31,		
	2020	2019	Change (Points)
Combined ratio before catastrophes and net incurred losses attributable to prior years			
Claims and claim adjustment expense ratio	61.2%	63.1%	(1.9)
Underwriting expense ratio	29.2	28.2	1.0
Subtotal	90.4	91.3	(0.9)
Catastrophes ¹	3.3	3.9	(0.6)
Net incurred losses attributable to prior years	(0.1)	(0.5)	0.4
Total combined ratio	93.6%	94.7%	(1.1)

¹ Catastrophes are defined as a natural catastrophe or terror event 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.

The Global Retail Markets combined ratio before catastrophes and net incurred losses attributable to prior years for the three months ended March 31, 2020 was 90.4%, a decrease of 0.9 points from the same period in 2019. The decrease was primarily driven by a decrease in the claims and claim adjustment expense ratio due to lower non-catastrophe losses driven by lower auto frequency and homeowners claim activity. The increase in the underwriting expense ratio was driven by an increase in employee-related costs and advertising spend.

Including the impact of catastrophes and net incurred losses attributable to prior years, the total combined ratio for the three months ended March 31, 2020 was 93.6%, a decrease of 1.1 points from the same period in 2019. Net favorability

from the drivers mentioned above and a decrease in catastrophe losses due to lower severity are partially offset by an unfavorable change in net incurred losses attributable to prior years due to 2019 catastrophe reserve releases primarily on 2018 and 2017 events.

GLOBAL RISK SOLUTIONS

Overview – Global Risk Solutions

Global Risk Solutions (“GRS”) offers a wide array of property, casualty, specialty and reinsurance coverage 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 and global reinsurance.
- North America (“NA”) – In Q1 2020, GRS combined National Insurance (NI) and North America Specialty (NAS) to form a single North America segment. This includes admitted and non-admitted property and casualty in North America.
- Global Surety – Leading global provider of contract and commercial surety bonds to businesses of all sizes.
- Other Global Risk Solutions primarily consists of internal reinsurance programs, Ironshore international entities and inland marine business.

On May 31, 2019, the Company completed the acquisition of Inco Dico of AmTrust Financial Services, Inc. The acquisition of the international surety and credit reinsurance operations of AmTrust Financial Services, Inc. closed on October 2, 2019.

On August 20, 2019, GRS disposed of certain international Ironshore entities.

Global Risk Solutions NWP by market segment was as follows:

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
Liberty Specialty Markets	\$1,372	\$1,110	23.6%
North America	1,342	1,365	(1.7)
Global Surety	291	238	22.3
Other Global Risk Solutions	520	461	12.8
Total NWP	\$3,525	\$3,174	11.1%
Foreign exchange effect on growth			(0.8)
NWP growth excluding foreign exchange ¹			11.9%

¹ Determined by assuming constant foreign exchange rates between periods.

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

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
Reinsurance	\$766	\$595	28.7%
Specialty insurance ¹	745	748	(0.4)
Casualty ²	508	468	8.5
Other reinsurance	355	214	65.9
Workers compensation	349	380	(8.2)
Surety	301	243	23.9
Commercial property	184	194	(5.2)
Inland marine ³	142	137	3.6
Commercial automobile	135	151	(10.6)
Commercial multiple-peril	40	44	(9.1)
Total NWP	\$3,525	\$3,174	11.1%

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.

NWP for the three months ended March 31, 2020 was \$3.525 billion, an increase of \$351 million over the same period in 2019.

The increase was driven by:

- Renewal rate increases across nearly all lines of business, totaling 8%;
- Amtrust acquisition which closed post first quarter of 2019;
- New business growth; and
- Ceded reinsurance program structure changes;
- Partially offset by lower retention and other reinsurance primarily due to a ceded global casualty program that was effective in Q2 2019.

Additionally, certain internal reinsurance changes in 2020 create offsetting differences amongst segments and lines.

Results of Operations – Global Risk Solutions

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
Revenues	\$3,385	\$3,122	8.4%
PTOI before catastrophes and net incurred losses attributable to prior years	\$324	\$296	9.5%
Catastrophes ¹	(79)	(17)	NM
Net incurred losses attributable to prior years ²	(31)	(73)	(57.5)
Pre-tax operating income	\$214	\$206	3.9%

1 Catastrophes are defined as a natural catastrophe or terror event 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.

2 Net of earned premium and reinstatement premium attributable to prior years of \$8 million for the three months ended March 31, 2020, and zero for the same period in 2019.

NM = Not Meaningful

Pre-tax operating income for the three months ended March 31, 2020 was \$214 million, an increase of \$8 million over the same period in 2019. The increase reflects lower net incurred losses attributable to prior years driven by strengthening in Q1 2019 that did not recur at the same level, profit margin on higher earned premium, lower current

year loss activity and higher net investment income. This is partially offset by higher current year catastrophe losses, the resetting of the current accident year to a higher baseline related to prior year loss indications primarily within liability lines, the impact of COVID-19 related losses and higher expenses.

Revenues for the three months ended March 31, 2020 were \$3.385 billion, an increase of \$263 million over the same period in 2019. The increase primarily reflects premium earned associated with the changes in NWP previously discussed and prior year net written premium growth, as well as favorable net investment income.

Claims, benefits and expenses for the three months ended March 31, 2020 were \$3.187 billion, an increase of \$237 million over the same period in 2019. The increase reflects attritional losses associated with growth, the resetting of the current accident year to a higher baseline related to prior year loss indications primarily within liability lines, higher current year catastrophe losses and the impact of COVID-19 related losses. This is partially offset by lower net incurred losses attributable to prior years driven by strengthening in Q1 2019 that did not recur at the same level and lower current year loss activity. Additionally, expenses increased over the prior year due to increased employee-related costs, higher technology investments, higher commissions due to business mix and growth and a nonrecurring benefit in 2019 from the discontinuance of the Georgia Subsequent Injury Trust Fund.

	Three Months Ended March 31,		
	2020	2019	Change (Points)
GLOBAL RISK SOLUTIONS			
Combined ratio before catastrophes and net incurred losses attributable to prior years			
Claims and claim adjustment expense ratio	65.6%	67.1%	(1.5)
Underwriting expense ratio	31.1	30.2	0.9
Dividend ratio	0.1	0.1	-
Subtotal	96.8	97.4	(0.6)
Catastrophes ¹	2.6	0.6	2.0
Net incurred losses attributable to prior years ²	1.1	2.5	(1.4)
Total combined ratio	100.5%	100.5%	-

1 Catastrophes are defined as a natural catastrophe or terror event 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.

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

The Global Risk Solutions combined ratio before catastrophes and net incurred losses attributable to prior years for the three months ended March 31, 2020 was 96.8%, a decrease of 0.6 points from the same period in 2019. The decrease in the claims and claim adjustment expense ratio was primarily driven by lower current year loss activity as well as business mix, partially offset by the resetting of the current accident year to a higher baseline related to prior year loss indications primarily within liability lines and the impact of COVID-19 related losses. The increase in the underwriting expense ratio was primarily driven by increased employee-related costs, higher technology investments, higher commissions due to business mix and a nonrecurring benefit in 2019 from the discontinuance of the Georgia Subsequent Injury Trust Fund, partially offset by higher earned premium.

Including the impact of catastrophes and net incurred losses attributable to prior years, the total combined ratio for the three months ended March 31, 2020 was 100.5%, no change versus the same period in 2019. Favorability from the decreases to the combined ratio mentioned above as well as lower net incurred losses attributable to prior years driven by strengthening in Q1 2019 that did not recur at the same level were completely offset by higher current year catastrophe losses.

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.
- 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 and pre-2019 risks on U.S. homeowners business covered by externally ceded homeowners’ quota share reinsurance treaties.
- 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 LP, LLC and other equity method investments.
- Fee and other revenues include revenues from certain wholly owned 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 LP, LLC and other equity method investments.
- The results of LLAC presented as discontinued operations to the extent there have been adjustments since the 2018 sale.

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

\$ in Millions	Three Months Ended March 31,		
	2020	2019	Change
Reinsurance, net	\$53	\$75	(29.3%)
Workers compensation ¹	(43)	(48)	(10.4)
Other	(4)	(5)	(20.0)
Total NWP	\$6	\$22	(72.7%)

1 Booked as billed adjustment.

NWP for the three months ended March 31, 2020 was \$6 million, a decrease of \$16 million from the same period in 2019. The decrease reflects the reinsurance line of business driven primarily by lower assumed premium due to lower pricing on internal catastrophe treaties.

Results of Operations – Corporate and Other

\$ in Millions	Three Months Ended March 31,		
	2020	Revised 2019 ⁵	Change
Revenues	\$65	\$451	(85.6%)
Pre-tax operating loss before catastrophes, net incurred losses attributable to prior years, and partnerships, LLC and other equity method income	(\$151)	(\$92)	64.1%
Catastrophes ¹	-	-	-
Net incurred losses attributable to prior years:			
-Asbestos and environmental ²	-	(3)	(100.0)
-All other ³	9	1	NM
Pre-tax operating loss before partnerships, LLC and other equity method income	(142)	(94)	51.1
Partnerships, LLC and other equity method income ⁴	100	83	20.5
Pre-tax operating loss	(\$42)	(\$11)	NM

1 Catastrophes are defined as a natural catastrophe or terror event 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

2 Asbestos and environmental is gross of the NICO Reinsurance Transaction.

3 Net of earned premium attributable to prior years of zero for the three months ended March 31, 2020 and 2019.

4 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 Income and revenue and expenses from the production and sale of oil and gas.

5 2019 amounts were restated due to a pension accounting policy change, which is described further in Critical Accounting Estimates.
NM = Not Meaningful

Pre-tax operating loss for the three months ended March 31, 2020 was \$42 million, an increase of \$31 million over the same period in 2019. The increase primarily reflects lower net investment income, higher employee-related costs and technology investments, and unfavorable incurred losses attributable to prior years on casualty lines ceded from the businesses as a part of the NICO Casualty Reinsurance Transaction, partially offset by favorable development related to internal reinsurance and favorable litigation expenses.

Revenues for the three months ended March 31, 2020 were \$65 million, a decrease of \$386 million from the same period in 2019. The major components of revenues are net premium earned, net investment income (including LP, LLC and other equity method investments), net realized gains (losses), and fee and other revenues.

Net premium earned for the three months ended March 31, 2020 was (\$24) million, a decrease of \$15 million from the same period in 2019. The decrease primarily reflects the reinsurance earnings impact of various pricing changes on internal and external catastrophe treaties.

Net investment income for the three months ended March 31, 2020 was \$90 million, a decrease of \$11 million from the same period in 2019. The decrease reflects lower earned yield in 2020 as compared to the same period in 2019.

Net realized losses for the three months ended March 31, 2020 were \$99 million versus net realized gains of \$223 million for the same period in 2019. The net realized losses in the current quarter were primarily driven by a \$308 million net change in equity unrealized losses and \$125 net losses on derivatives. This was partially offset by \$328 million of gains from fixed maturity sales. The prior period was impacted by \$268 million net change in equity unrealized gains.

Fee and other revenues for the three months ended March 31, 2020 were \$98 million, a decrease of \$38 million from the same period in 2019. The decrease was primarily driven by lower natural resource revenues.

Claims, benefits and expenses for the three months ended March 31, 2020 were \$206 million, a decrease of \$33 million from the same period in 2019. The decrease primarily reflects favorable development related to internal reinsurance, favorable litigation expenses, and lower natural resources expenses, partially offset by higher employee-related costs, technology investments, and unfavorable incurred losses attributable to prior years on casualty lines ceded from the businesses as a part of the NICO Casualty Reinsurance Transaction.

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, 2020 and December 31, 2019:

Invested Assets by Type \$ in Millions	As of March 31, 2020		As of December 31, 2019	
	Carrying Value	% of Total	Carrying Value	% of Total
Fixed maturities, available for sale, at fair value	\$63,758	78.5%	\$64,606	79.7%
Equity securities, at fair value	1,706	2.1	2,140	2.6
LP, LLC and other equity method investments	6,902	8.5	6,811	8.4
Commercial mortgage loans	2,071	2.5	1,981	2.4
Short-term investments	229	0.3	222	0.3
Other investments	438	0.5	407	0.5
Cash and cash equivalents	6,159	7.6	4,969	6.1
Total invested assets	\$81,265	100.0%	\$81,136	100.0%

Total invested assets as of March 31, 2020 were \$81.265 billion, an increase of \$129 million or 0.16% over December 31, 2019. The increase was primarily related to an increase in cash and cash equivalents partially offset by a decrease in fixed maturities.

Fixed maturities as of March 31, 2020 were \$63.758 billion, a decrease of \$848 million or 1.3% from December 31, 2019. The decrease was primarily related to the unfavorable impact of widening credit spreads partially offset by the favorable impact of the decrease in treasury rates. As of March 31, 2020, included in fixed maturities are commitments to purchase various residential mortgage-backed securities at a cost and fair value of \$1.327 billion and \$1.344 billion, respectively.

Equity securities as of March 31, 2020 were \$1.706 billion (\$1.697 billion common stock and \$9 million preferred stock) versus \$2.140 billion as of December 31, 2019 (\$2.130 billion common stock and \$10 million preferred stock), a decrease of \$434 million or 20.3% from December 31, 2019. Of the \$1.697 billion of common stock at March 31, 2020, \$555 million relates to securities associated with non-guaranteed unit linked life insurance where the policyholder bears the investment risk. The decrease in total equity securities is primarily due to the unfavorable impact of market movement.

The following table summarizes the Company's LP, LLC and other equity method investments as of March 31, 2020 and December 31, 2019:

LP, LLC and other equity method investments \$ in Millions	As of March 31, 2020		As of December 31, 2019	
	Carrying Value	% of Total	Carrying Value	% of Total
Traditional private equity	\$3,229	46.8%	\$3,154	46.3%
Natural resources – Energy	384	5.6	399	5.9
Natural resources – Other ¹	770	11.2	780	11.5
Real estate	1,167	16.9	1,134	16.6
Private credit	755	10.9	715	10.5
Other	597	8.6	629	9.2
Total LP, LLC and other equity method investments	\$6,902	100.0%	\$6,811	100.0%

¹ Included in Natural Resources – Other is \$163 million and \$183 million of investments in metals & mining as of March 31, 2020 and December 31, 2019 respectively, \$128 million and \$125 million of investments in agriculture and timber as of March 31, 2020 and December 31, 2019 respectively, and \$479 million and \$472 million of investments in power and renewables as of March 31, 2020 and December 31, 2019 respectively.

Commercial mortgage loans as of March 31, 2020 were \$2.071 billion (net of \$2 million of loan loss reserves or 0.10% of the outstanding loan portfolio), an increase of \$90 million or 4.5% over December 31, 2019. The increase is primarily driven by \$150 million in funding, partially offset by \$60 million in principal reductions. The entire commercial loan portfolio is U.S.-based. The number of loans in the portfolio decreased from 4,090 at December 31, 2019 to 4,018 at March 31, 2020.

Cash and cash equivalents as of March 31, 2020 were \$6.159 billion, an increase of \$1.190 billion or 23.9% over December 31, 2019. The increase primarily reflects an increase in cash from operating, investing, and financing activities.

The following tables summarize the Company's available for sale portfolio by security type as of March 31, 2020 and December 31, 2019:

\$ in Millions	As of March 31, 2020			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. government and agency securities	\$8,500	\$423	(\$11)	\$8,912
Residential MBS ¹	6,820	231	(3)	7,048
Commercial MBS	4,785	307	(31)	5,061
Other MBS and ABS ²	5,149	29	(297)	4,881
U.S. state and municipal	7,947	487	(25)	8,409
Corporate and other	25,632	433	(836)	25,229
Foreign government securities	4,035	206	(23)	4,218
Total securities available for sale	\$62,868	\$2,116	(\$1,226)	\$63,758

1 Mortgage-backed securities ("MBS")

2 Asset-backed securities ("ABS")

\$ in Millions	As of December 31, 2019			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. government and agency securities	\$9,041	\$145	(\$6)	\$9,180
Residential MBS	6,166	105	(6)	6,265
Commercial MBS	4,410	131	(5)	4,536
Other MBS and ABS	5,134	48	(31)	5,151
U.S. state and municipal	8,429	497	(7)	8,919
Corporate and other	24,784	844	(47)	25,581
Foreign government securities	4,756	230	(12)	4,974
Total securities available for sale	\$62,720	\$2,000	(\$114)	\$64,606

The following table summarizes the Company's mortgage and asset-backed fixed maturity portfolio by credit quality as of March 31, 2020:

Mortgage & Asset-Backed Fixed Maturities by Credit Quality ¹	As of March 31, 2020							
	AAA	AA	A	BBB	BB	B or Lower	Total	% of Total
\$ in Millions								
Residential MBS	\$7,031	\$3	\$11	\$-	\$-	\$3	\$7,048	41.5%
Commercial MBS	4,852	115	51	30	13	-	5,061	29.8%
Other MBS and ABS	3,294	534	369	451	186	47	4,881	28.7%
Total	\$15,177	\$652	\$431	481	\$199	\$50	\$16,990	100%
% of Total	89.3%	3.8%	2.5%	2.8%	1.2%	0.4%	100%	

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

Approximately 69% 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 89% of the holdings are rated AAA. Included in the commercial mortgage-backed securities at March 31, 2020, were \$3.840 billion in Agency CMBS and \$1.221 billion Non-agency CMBS. Included in the Other MBS and ABS at March 31, 2020 were \$984 million AAA rated SBA Loans. The commercial mortgage-backed securities portfolio is well diversified and of high quality with approximately 96% 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, 2020 and December 31, 2019:

U.S. State and Municipal by Credit Quality ¹	As of March 31, 2020			As of December 31, 2019		
	Fair Value	% of Total	Average Credit Rating	Fair Value	% of Total	Average Credit Rating
\$ in Millions						
State general obligation	\$1,413	16.9%	AA	\$1,539	17.2%	AA
Local general obligation	1,229	14.6	AA	1,365	15.3	AA
Revenue	5,680	67.5	AA	5,929	66.5	AA
Pre-refunded	87	1.0	AAA	86	1.0	AAA
Total U.S. state and municipal	\$8,409	100%	AA	\$8,919	100.0%	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, 2020 and December 31, 2019 were \$87 million and \$86 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, 2020 and December 31, 2019:

Fixed Maturities by Credit Quality ¹	As of March 31, 2020		As of December 31, 2019	
	Fair Value	% of Total	Fair Value	% of Total
\$ in Millions				
AAA	\$26,316	41.3%	\$25,592	39.6%
AA+, AA, AA-	8,908	14.0	9,419	14.6
A+, A, A-	13,242	20.8	12,163	18.8
BBB+, BBB, BBB-	12,178	19.1	13,696	21.2
Total investment grade	60,644	95.2	60,870	94.2
BB+, BB, BB-	1,747	2.7	2,030	3.2
B+, B, B-	1,159	1.8	1,449	2.2
CCC or lower	153	0.2	192	0.3
Unrated ²	55	0.1	65	0.1
Total below-investment grade	3,114	4.8	3,736	5.8
Total fixed maturities	\$63,758	100.0%	\$64,606	100.0%

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

2 Bank loans acquired as part of Ironshore acquisition.

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, 2020.

The following table summarizes available for sale fixed maturity securities by contractual maturity at March 31, 2020 and December 31, 2019. 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 Maturity by Maturity Date	As of March 31, 2020		As of December 31, 2019	
	Fair Value	% of Total	Fair Value	% of Total
\$ in Millions				
One year or less	\$3,301	5.2%	\$3,462	5.4%
Over one year through five years	22,442	35.2	21,930	33.9
Over five years through ten years	13,744	21.6	15,309	23.7
Over ten years	7,281	11.4	7,953	12.3
MBS and ABS	16,990	26.6	15,952	24.7
Total fixed maturities	\$63,758	100.0%	\$64,606	100.0%

During 2020, 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, 2020 was 4.0 years.

The following tables summarize the Company's gross unrealized losses and fair value of fixed income and equity securities by the length of time that individual securities have been in a continuous unrealized loss position as of March 31, 2020 and December 31, 2019 that are not deemed to be other-than-temporarily impaired:

	As of March 31, 2020			
\$ 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	(\$11)	\$1,420	\$ -	\$ -
Residential MBS	(3)	54	-	25
Commercial MBS	(30)	714	(1)	15
Other MBS and ABS	(245)	3,230	(52)	343
U.S. state and municipal	(25)	1,138	-	-
Corporate and other	(784)	12,676	(52)	207
Foreign government securities	(23)	373	-	33
Total securities available for sale	(\$1,121)	\$19,605	(\$105)	\$623

	As of December 31, 2019			
\$ 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	(\$5)	\$949	(\$1)	\$152
Residential MBS	(4)	575	(2)	493
Commercial MBS	(5)	409	-	43
Other MBS and ABS	(16)	1,204	(15)	534
U.S. state and municipal	(7)	681	-	4
Corporate and other	(28)	1,715	(19)	421
Foreign government securities	(11)	769	(1)	142
Total securities available for sale	(\$76)	\$6,302	(\$38)	\$1,789

Unrealized losses for fixed maturity securities increased from \$114 million as of December 31, 2019 to \$1.226 billion as of March 31, 2020. 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 has concluded that the gross unrealized losses of fixed maturity securities as of March 31, 2020 are temporary.

The following tables summarize the Company's issuer and sector exposure¹ as of March 31, 2020:

Top 10 Issuers	As of March 31, 2020				
\$ in Millions	Fixed Maturity	Equity	Short-Term	Total Exposure	% of Invested Assets
Government of Brazil	\$527	\$-	\$-	\$527	0.65%
Bank of America Corp	510	-	-	510	0.63
JP Morgan Chase & Co	414	-	-	414	0.51
Citigroup Inc	405	-	-	405	0.50
New York State Dormitory Authority	404	-	-	404	0.50
Morgan Stanley	385	-	-	385	0.47
Government of United Kingdom	380	-	3	383	0.46
Government of Canada	323	-	2	325	0.40
Government of Spain	322	-	-	322	0.40
Goldman Sachs Group Inc	319	-	-	319	0.39
Total	\$3,989	\$-	\$5	\$3,994	4.91%

Top 10 Sectors	As of March 31, 2020				
\$ in Millions	Fixed Maturity	Equity	Short-Term	Total Exposure	% of Invested Assets
Banking	\$6,018	\$2	\$100	\$6,120	7.53%
Foreign Government	3,222	-	22	3,244	3.99
US Municipal – State & US Territory	2,151	-	-	2,151	2.65
Technology	1,785	202	5	1,992	2.45
Electric Utility	1,632	287	2	1,921	2.37
REITS	539	1,194	1	1,734	2.13
US Municipal – Local Govt	1,544	-	-	1,544	1.90
Pharmaceuticals	1,301	8	15	1,324	1.63
Insurance	1,125	70	6	1,201	1.48
Healthcare	934	101	1	1,036	1.27
Total	\$20,251	\$1,864	\$152	\$22,267	27.40%

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

As of March 31, 2020, investments in the energy sector accounted for \$1.984 billion or 2.4% 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*). These individual energy sub-sectors are not material enough at an individual level to appear within the top 10 rankings in the sector table above. Energy investments consist of investment grade bonds of \$1.449 billion, bonds that were rated below investment grade of \$148 million, and natural resources partnerships and other equity method investments of \$387 million. In addition, the Company has direct investments in oil and gas wells of \$1.119 billion which are included in other assets on the Consolidated Balance Sheets. Agriculture and timber investments consist of natural resource partnerships of \$128 million. In addition, the Company has direct investment in agriculture and timber of \$325 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, 2020 and December 31, 2019:

Unfunded Commitments	As of March 31, 2020		As of December 31, 2019	
	Total	% of Total	Total	% of Total
\$ in Millions				
Traditional private equity	\$1,235	34.9%	\$1,160	32.4%
Natural resources – Energy	118	3.3	119	3.3
Natural resources – Other ¹	198	5.6	223	6.2
Real estate	797	22.5	796	22.2
Private credit	1,092	30.9	1,168	32.6
Other	99	2.8	116	3.3
Total unfunded commitments	\$3,539	100.0%	\$3,582	100.0%

¹ Includes power and renewables, and agriculture and timber commitments.

Unfunded commitments as of March 31, 2020 were \$3.539 billion, a decrease of \$43 million from December 31, 2019. The decrease is primarily driven by contributions offset by new commitments to traditional private equity partnerships, real estate investments, and private credit. The \$118 million unfunded energy investment commitments as of March 31, 2020 included \$95 million related to energy partnerships and \$23 million related to direct investments in oil and gas wells. The \$119 million unfunded energy investment commitments as of December 31, 2019 included \$96 million related to energy partnerships and \$23 million related to direct investments in oil and gas wells.

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:

- A \$250 million repurchase agreement for a three-year period, which terminates December 1, 2020. At March 31, 2020, no funds were borrowed under the facility.
- A \$250 million repurchase agreement with an expiration date of November 24, 2020. At March 31, 2020, no funds were borrowed under the facility.
- LMIC, Peerless Insurance Company ("PIC"), Liberty Mutual Fire Insurance Company ("LMFIC") and Employers Insurance Company of Wausau ("EICOW") are members of the Federal Home Loan Bank. The Company has \$300 million of Federal Home Loan Bank borrowings with maturity dates in 2032. As of March 31, 2020, the outstanding Federal Home Loan Bank borrowings are fully collateralized. Ironshore Indemnity Insurance ("IIP") and Ironshore Specialty Insurance Company ("ISIC") memberships were cancelled on February 24th and 25th, 2020, respectively, however there is a five-year waiting period requirement, so the effective date of these membership cancellations 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, 2020 (including cash and cash equivalents) totaled \$81.265 billion.

Debt outstanding as of March 31, 2020 and December 31, 2019 was as follows:

Short-term debt:

\$ in Millions	As of March 31, 2020	As of December 31, 2019
Short-term debt	\$ -	\$ -

Long-term debt:

\$ in Millions	As of March 31, 2020	As of December 31, 2019
5.00% Notes, due 2021	\$330	\$330
4.95% Notes, due 2022	473	473
4.25% Notes, due 2023	547	547
1.75% €500 Million Notes, due 2024	549	561
3.625% €500 Million Junior Subordinated notes, due 2059 ¹	549	561
8.50% Surplus notes, due 2025	140	140
2.75% €750 Million Notes, due 2026	822	842
7.875% Surplus notes, due 2026	227	227
7.625% Notes, due 2028	3	3
4.569% Notes, due 2029	1,000	1,000
3.91% - 4.25% Federal Home Loan Bank Borrowings, due 2032	300	300
7.00% Notes, due 2034	153	153
6.50% Notes, due 2035	301	301
7.50% Notes, due 2036	19	19
7.80% Junior Subordinated notes, due 2087 ²	437	437
10.75% Junior Subordinated notes, due 2088 ³	35	35
6.50% Notes, due 2042	270	270
4.85% Notes, due 2044	614	614
4.50% Notes, due 2049	350	350
3.951% Notes, due 2050	1,248	1,248
7.697% Surplus notes, due 2097	260	260
Subtotal	8,627	8,671
Unamortized discount	(427)	(431)
Long-term debt excluding unamortized debt issuance costs	8,200	8,240
Unamortized debt issuance costs	(39)	(40)
Total long-term debt	\$8,161	\$8,200

1 The par value call date and final fixed rate interest payment date is May 23, 2024, subject to certain requirements

2 The par value call date and final fixed rate interest payment date is March 15, 2037, subject to certain requirements.

3 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 September 27, 2019, LMGI exchanged \$1.25 billion par value of the 2050 Notes for \$78 million of its 7.00% Senior Notes due 2034, \$170 million of its 6.50% Senior Notes due 2035, \$480 million of its 6.50% Senior Notes due 2042, \$436 million of its 4.85% Senior Notes due 2044, \$67 million of the 2087 Notes and \$17 million of its 10.75% Junior Subordinated Notes due 2088. LMGI paid an aggregate of \$411 million cash consideration, including accrued and unpaid interest, for the existing notes accepted for exchange. Interest on the 2050 Notes is payable semi-annually at a fixed rate of 3.951%. The 2050 Notes mature on October 15, 2050.

On June 11, 2019, LMGI issued \$350 million of Senior Notes due 2049 (the “2049 Notes”). Interest is payable semi-annually at a fixed rate of 4.50%. The 2049 Notes mature on June 15, 2049.

On June 7, 2019, LMGI tendered \$196 million of the 2087 Notes. LMGI paid an aggregate of \$247 million cash consideration, including accrued and unpaid interest, for the tender of the 2087 Notes.

On May 23, 2019, LMGI redeemed \$300 million Junior Subordinated Notes due 2067 (the redeemed “2067 Notes”). LMGI terminated the two interest rate swap transactions with respect to the redeemed 2067 Notes. LMGI paid \$43 million for the early termination of the swap transactions.

On May 23, 2019, LMGI issued €500 million of Series D Junior Subordinated notes (the “Series D Notes”) scheduled for redemption on May 23, 2059. The Series D Notes have a par value call date of May 23, 2024 (the “First Call Date”) and may be redeemed in whole or in part on each date falling on the fifth anniversary thereafter (the “Reset Period”). Interest is payable annually at a fixed rate of 3.625% up to but excluding the first call date. In the event the Series D Notes are not redeemed on the First Call Date, interest will be payable annually at a rate equal to the relevant Euro 5 Year Swap rate plus 3.700% per year (the “Margin”) in respect of the Reset Period commencing on the First Call Date and each subsequent Reset Period, up to but excluding May 23, 2044 (the “Step-up Date”). In the event the Series D Notes are not redeemed on or before the Step-up Date, interest will be payable annually, including the Step-up Date but excluding the stated maturity, in respect of each Reset Period between the Step-up Date and the stated maturity, the relevant Euro 5 Year Swap Rate plus the Margin plus 1.00% per year. LMGI has the right to defer interest payments on the Series D Notes for a period up to ten years. Interest compounds during periods of deferral.

On January 28, 2019, LMGI exchanged \$1 billion par value of the 2029 Notes for \$270 million of its 5.00% Notes due 2021, \$277 million of its 4.95% Notes due 2022 and \$453 million of its 4.25% Notes due 2023. LMGI paid an aggregate of \$40 million cash consideration, including accrued and unpaid interest, for the existing notes accepted for exchange. Interest on the 2029 Notes is payable semi-annually at a fixed rate of 4.569%. The 2029 Notes mature on February 1, 2029.

Interest Expense

Consolidated interest expense for the three months ended March 31, 2020 was \$107 million, a decrease of \$3 million from the same period in 2019.

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, 2020, the Company, through its downstream subsidiaries LMGI and LMFE, had \$7.1 billion and \$549 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 nondisapproval of the domiciliary insurance regulatory authority. Insurance subsidiaries owned directly by LMGI are LMIC, Liberty Mutual Personal Insurance Company (“LMPICO”), LMFIC and EICOW. 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. Changes in the extraordinary dividend regulation of the domiciliary states of LMIC, LMFIC and EICOW could negatively affect LMGI’s ability to pay principal and interest on its debt, as could a redomestication or merger of LMIC, LMPICO, LMFIC or EICOW to a different domiciliary state.

The authorized control level risk-based capital (as of December 31, 2019) and 2020 available dividend capacity prior to needing regulatory approval for LMIC, LMFIC and EICOW were as follows:

\$ in Millions	RBC Ratio¹		Dividend Capacity²	Dividends Paid³
RBC Ratios and Dividend Capacity	2019	2018	2020	2020
LMIC	388%	399%	\$1,641	\$16
LMFIC	502%	494%	\$183	\$4
EICOW	468%	454%	\$181	\$-

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, 2020. Available dividend capacity as of March 31, 2020 is calculated as 2020 dividend capacity less dividends paid for the preceding 12 months. Dividends paid April 1, 2019 through March 31, 2020 for LMIC, LMFIC and EICOW were \$65 million, \$15 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 June 25, 2024. 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, 2020, LCS recorded \$82 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, 2020	Revised As of December 31, 2019²
Total debt	\$8,161	\$8,200
Unamortized discount and debt issuance costs	(466)	(471)
Total debt excluding unamortized discount and debt issuance costs	\$8,627	\$8,671
Total equity excluding accumulated other comprehensive loss	\$25,495	\$24,978
Total capital excluding accumulated other comprehensive loss ¹	\$34,122	\$33,649
Debt-to-capital capitalization excluding accumulated other comprehensive loss ¹	25.3%	25.8%
Statutory surplus	\$20,246	\$20,538

1 Excludes unamortized discount and debt issuance costs

2 2019 amounts were restated due to a pension accounting policy change, which is described further in Critical Accounting Estimates.

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. 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) of 25.3% at March 31, 2020 was within the Company's target range.

REINSURANCE

Reinsurance Recoverables

The Company reported reinsurance recoverables of \$15.859 billion and \$15.928 billion at March 31, 2020 and December 31, 2019, respectively, net of allowance for doubtful accounts of \$98 million and \$126 million, respectively. Included in these balances are \$1.059 billion and \$1.063 billion of paid recoverables and \$14.898 billion and \$14.991 billion of unpaid recoverables (including retroactive reinsurance), respectively.

S&P Rating ¹	As of December 31, 2019			
	Gross Recoverables ²	Collateral Held ³	Net Recoverables ⁴	% of Total Net Recoverables
\$ in Millions				
<u>Rated Entities</u>				
AAA	\$ -	\$ -	\$ -	-
AA+, AA, AA-	6,462	5,970	2,156	22%
A+, A, A-	4,385	267	4,130	42%
BBB+, BBB, BBB-	(1)	-	(1)	-
BB+ or below	1	-	1	-
Subtotal	10,847	6,237	6,286	64%
<u>Pools & Associations</u>				
State mandated involuntary pools and associations	2,832	-	2,832	28%
Voluntary	187	119	182	2%
Subtotal	3,019	119	3,014	30%
<u>Non-Rated Entities</u> ⁵				
Captives & fronting companies	1,381	1,499	247	2%
Other	807	1,310	390	4%
Subtotal	2,188	2,809	637	6%
Grand Total	\$16,054	\$9,165	\$9,937	100%

1 Standard & Poor's ratings are as of December 31, 2019.

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. If the collateral held for a reinsurer 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, 2019		
	Gross Recoverables ²	Collateral Held ³	Net Recoverables ⁴
\$ in Millions			
1. Berkshire Hathaway Insurance Group	\$4,047	\$5,150	\$176
2. Nationwide Group	1,322	-	1,321
3. Swiss Re Group	1,220	666	929
4. Everest Re Group	595	110	485
5. Munich Re Group	425	10	419
6. Alleghany Corp	397	-	397
7. Lloyd's of London	329	-	329
8. UPINSCO	317	386	-
9. CUMIS Insurance Society Group	276	-	276
10. Builders Reinsurance S.A.	269	344	-
11. Partner Re Group	249	30	219
12. Exchange Indemnity Company	244	116	130
13. Horseshoe Re Ltd.	242	521	3
14. Markel Corp	217	2	216
15. Hannover Re Group	170	23	148
State Mandated Involuntary pools and associations	2,832	-	2,832
Voluntary pools and associations	187	119	182
All Other	2,716	1,688	1,875
Total Reinsurance Recoverables	\$16,054	\$9,165	\$9,937

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. If the collateral held for a reinsurer is greater than the gross recoverable, net recoverables are reported as \$0.

Approximately 94% 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, 2019. Collateral held against outstanding gross reinsurance recoverable balances was \$9.165 billion at December 31, 2019.

The remaining 6% of the Company's net reinsurance recoverable balance is well diversified. No single reinsurer rated B++ or below by A.M. Best or below A- by 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, 2019.

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 \$8.341 billion of combined aggregate reserves. The second layer of the contract provides adverse development coverage for \$1.000 billion above a retention equal to \$8.741 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 Income 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.

The Company reported deferred gain amortization of \$2 million and zero for the three and twelve months ended March 31, 2020 and December 31, 2019, respectively. As of March 31, 2020 and December 31, 2019, deferred gains were \$37 million and zero. Limits remaining on the contract as of March 31, 2020 were \$789 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 \$3.0055 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 sublimit were \$461 million and \$0, respectively, as of March 31, 2020.

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. 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.

The Company reported the net position of the contract as a loss of \$3 million and \$13 million as of March 31, 2020 and December 31, 2019, respectively. Limits remaining on the contracts in total, and for asbestos and environmental liabilities sublimits, were \$3.150 billion and \$812 million, respectively, as of March 31, 2020.

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, 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 \$500 million of retained loss in the United States, Canada and the Caribbean, excluding certain reinsurance exposures; 2) aggregate excess of loss programs; 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 \$360 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.

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, 2019, the Company renewed coverage for 90% of approximately \$67 million excess of \$24 million. Recoveries from FHCF inure to the sole benefit of the Company. If the Company fails to recover as anticipated from FHCF there could be an adverse effect on the Company's business, financial condition or results of operations.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with 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 investments in natural resources, (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, 2019 Audited Consolidated Financial Statements and footnote 1 in the Company's March 31, 2020 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, 2019 Audited Consolidated Financial Statements and footnote 6 in the Company's March 31, 2020 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.

For additional discussion, please refer to footnote 6 in the Company's December 31, 2019 Audited Consolidated Financial Statements and footnote 6 in the Company's March 31, 2020 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 estimated uncollectible reinsurance recoverables. 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. Accordingly, the establishment of reinsurance recoverables and the related allowance for uncollectible reinsurance recoverables is also an inherently uncertain process involving estimates. Changes in these estimates could result in additional charges to the accompanying Consolidated Statements of Income.

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 Income 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, 2019 Audited Consolidated Financial Statements and footnote 4 in the Company's March 31, 2020 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, 2020, excluding other assets, the Company reflected \$10.416 billion (15.8%) 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, 2020, the Company reported \$54.537 billion (82.5%) as level 2, consisting primarily of fixed maturity securities. Finally, the Company reported \$1.155 billion (1.7%) 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, 2019 Audited Consolidated Financial Statements and footnote 9 in the Company's March 31, 2020 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 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.

The Company is required to review its oil and gas properties when facts and circumstances indicate the possible existence of impairment. When a property's carrying value is greater than the expected future cash flows, impairment

expense is recognized to the extent that the carrying value of the property exceeds its estimated fair market value. In employing the discounted cash flow method described, key inputs include commodity prices, locational basis difference, production, project development costs and the discount rate which are based on management's expectations about outcomes with respect to these variables. Unproved properties are assessed at least annually to determine whether impairment has occurred. As of March 31, 2020, the global commodity price volatility has challenged all energy industry segments. This downward price volatility has been driven by a sharp reduction in demand related to stay-at-home restrictions put in place globally in response to the COVID-19 pandemic as well as an unprecedented increase in supply resulting from tensions in the oil and gas market. Consequently, the Company has concluded these events may indicate a possible impairment. As a result, the Company prepared multiple undiscounted cash flow scenarios for their oil and gas properties based on the most recent property and market information. These undiscounted cash flow scenarios were then compared to the carrying amounts of these assets. Based on this analysis and the lack of credibility on any one point in the range of potential outcomes compared to another, the Company did not book any impairments for the three months ended March 31, 2020. The Company will continue to monitor changes in the energy market and refine its estimate in future reporting periods.

For additional discussion, please refer to footnote 1 in the Company's December 31, 2019 Audited Consolidated Financial Statements and footnote 3 in the Company's March 31, 2020 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, 2020, 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.

In 2019, a goodwill impairment of \$33 million was recognized related to the sale of Pembroke Managing Agency Ltd. The Company recognized a syndicate capacity impairment of \$98 million in 2019. In addition, \$52 million of syndicate capacity was included in the sale of Pembroke Managing Agency Ltd. The Company had no material goodwill or intangible asset impairments recognized in 2020.

For additional discussion, please refer to footnote 1 in the Company's December 31, 2019 Audited Consolidated Financial Statements.

Deferred Income Taxes

The income tax provision is calculated under the liability method. 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, net operating losses, employee benefits, accrued expenses, deferred policy acquisition costs, net unrealized gains and losses on investments, intangibles, equalization reserves and fixed assets.

The Company's effective tax rate on continuing operations differs from the U.S. Federal statutory rate of 21% primarily due to the impact of non-U.S. operations partially offset by tax-exempt investment income.

For additional discussion, please refer to footnote 8 in the Company's December 31, 2019 Audited Consolidated Financial Statements and footnote 7 in the Company's March 31, 2020 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. Effective January 1, 2016, 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.

Effective January 1, 2020, the Company has elected a change to its method of calculating the market-related value of assets used to determine the expected return on plan assets component of net periodic pension cost. The Company previously calculated market-related value for its pension plan by recognizing changes in the fair value of plan assets over a period of five years on all classes of assets. As a result of the change in accounting method, the Company will no longer recognize changes in fair value for the asset classes, such as investment grade fixed income securities and derivatives in the Immunizing Portfolio over five years. Instead, changes in the fair value of these assets will be recognized immediately for purposes of the market-related value. However, the Company will continue to recognize changes in the fair value of the asset classes in the Growth Portfolio over a five-year period. These assets include public equities, private equity, common collective trust funds, non-investment grade fixed income, and emerging market fixed income. The change is preferable to better align pension assets and liabilities with the investment policy designed for the Immunizing Portfolio to hedge the Plan's liability risks, specifically to offset changes in the Plan's liability value due to market-related risk factors such as change in interest rate and credit spreads. Comparative financial statements of prior years have been adjusted to apply the new methodology retrospectively. The change resulted in a \$9 million change to 2019 AOCI and unassigned funds and a \$9 million decrease in prepaid pension expense and accrued postretirement and pension benefits on the December 31, 2019 Balance Sheet for a net impact of \$2 million on net income for the three months ended March 31, 2019.

The adjustment is comprised of the difference between the net actuarial loss within AOCI before and after the change in methodology. The estimated impact on fiscal year 2020 expense of the MRVA methodology change compared to the current method will result in an overall decrease of \$90 million.

For additional discussion, please refer to footnote 9 in the Company's December 31, 2019 Audited Consolidated Financial Statements and footnote 8 in the Company's March 31, 2020 Unaudited 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 fourth largest property and casualty insurer in the U.S. based on 2019 direct written premium. The Company also ranks 75th on the Fortune 100 list of largest corporations in the U.S. based on 2018 revenue. As of December 31, 2019, LMHC had \$133.635 billion in consolidated assets, \$110.016 billion in consolidated liabilities, and \$43.228 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.

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

LMHC employs over 45,000 people in 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.