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

# Quarter Ended December 31, 2021

***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 and twelve months ended December 31, 2021 and 2020. 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, 2021 Audited Consolidated Financial Statements located on the Company's Investor Relations website at www.libertymutualgroup.com/investors. The Company's discussions related to net income are presented in conformity with 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, civil unrest, hurricanes, hail, tornados, tsunamis, earthquakes, floods, snowfall and winter conditions); inadequacy of loss reserves; adverse developments involving asbestos, environmental or toxic tort claims and litigation; adverse developments in the cost, availability or ability to collect reinsurance; disruptions to the Company's relationships with its independent agents and brokers; financial disruption or a prolonged economic downturn; prolonged epidemic or pandemic in countries in which we operate; the performance of the Company's investment portfolios; a rise in interest rates; risks inherent in the Company's alternative investments in private limited partnerships ("LP"), limited liability companies ("LLC"), commercial mortgages and direct investments in natural resources; difficulty in valuing certain of the Company's investments; subjectivity in the determination of the amount of impairments taken on the Company's investments; unfavorable outcomes from litigation and other legal proceedings, including the effects of emerging claim and coverage issues and investigations by state and federal authorities; the Company's exposure to credit risk in certain of its business operations; the Company's inability to obtain price increases or maintain market share due to competition or otherwise; inadequacy of the Company's pricing models; changes to insurance laws and regulations; changes in the amount of statutory capital that the Company must hold to maintain its financial strength and credit ratings; regulatory restrictions on the Company's ability to change its methods of marketing and underwriting in certain areas; assessments for guaranty funds and mandatory pooling arrangements; a downgrade in the Company's claims-paying and financial strength ratings; the ability of the Company's subsidiaries to pay dividends to the Company; inflation, including inflation in medical costs and automobile and home repair costs; the cyclicality of the property and casualty insurance industry; political, legal, operational and other risks faced by the Company's international business; potentially high severity losses involving the Company's surety products; loss or significant restriction on the Company's ability to use credit scoring in the pricing and underwriting of personal lines policies; inadequacy of the Company's controls to ensure compliance with legal and regulatory standards; changes in U.S. federal, foreign or state tax laws; risks arising out of the Company's securities lending program; the Company's utilization of information technology systems and its implementation of technology innovations; difficulties with technology or data security; insufficiency of the Company's business continuity plan in the event of a disaster; the Company's ability to successfully integrate operations, personnel and technology from its acquisitions; insufficiency of the Company's enterprise risk management models and modeling techniques; the Company's ability to identify and accurately assess complex and emerging risks, and changing climate conditions. 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), the level of acceptance of the vaccines, 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.

## 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 2021 Audited Consolidated Financial Statements.*

### Consolidated Results of Operations

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Net written premium | $11,028 | $10,095 | 9.2% | $43,679 | $40,624 | 7.5% |
| Pre-tax operating income (loss) before partnerships, LLC and other equity method income | 352 | (33) | NM | 664 | 187 | NM |
| Partnerships, LLC and other equity method income | 916 | 494 | 85.4 | 3,708 | 711 | NM |
| Net realized (losses) gains | (305) | 415 | NM | (222) | 790 | NM |
| Unit linked life insurance | (31) | (51) | (39.2) | (126) | (30) | NM |
| Acquisition & integration costs | (8) | (2) | NM | (21) | (18) | 16.7 |
| Restructuring costs | (46) | (596) | (92.3) | (193) | (626) | (69.2) |
| Discontinued operations, net of tax | - | 2 | (100.0) | - | (17) | (100.0) |
| Consolidated net income | 722 | 162 | NM | 3,070 | 760 | NM |
| Less: Net income attributable to non-controlling interest | - | - | - | 2 | 2 | - |
| Net income attributable to LMHC | 722 | 162 | NM | 3,068 | 758 | NM |
| Net income attributable to LMHC excluding unrealized impact[1] | 716 | 23 | NM | 2,795 | 671 | NM |
| Cash flow provided by continuing operations | $889 | $1,542 | (42.3%) | $5,570 | $6,448 | (13.6%) |

1 Excludes unrealized gains on equity securities, unit linked life insurance, and the corresponding tax impact.
NM = Not Meaningful

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| | **2021** | **2020** | **Change (Points)** | **2021** | **2020** | **Change (Points)** |
| Combined ratio before catastrophes[1], COVID-19[2], net incurred losses attributable to prior years[3] and current accident year re-estimation[4] | 95.1% | 93.1% | 2.0 | 93.3% | 91.6% | 1.7 |
| Combined ratio[5] | 99.2% | 102.3% | (3.1) | 100.8% | 101.8% | (1.0) |

1 Catastrophes are defined as a natural catastrophe, civil unrest, 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 Includes Global Risk Solutions estimated loss activity directly related to COVID-19 in 2020.
3 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.
4 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2021 and September 30, 2020.
5 The combined ratio, expressed as a percentage, is a measure of underwriting profitability. This measure should only be used in conjunction with, and not in lieu of, underwriting income and may not be comparable to other performance measures used by the Company's competitors. The combined ratio is computed as the sum of the following property and casualty ratios: the ratio of claims and claim adjustment expense less managed care income to earned premium; the ratio of insurance operating costs plus amortization of deferred policy acquisition costs less third-party administration income and fee income (primarily related to the Company's involuntary market servicing carrier operations) and installment charges to earned premium; and the ratio of policyholder dividends to earned premium. Provisions for uncollectible premium and reinsurance are not included in the combined ratio unless related to an asbestos and environmental commutation and certain other run off. Restructuring and acquisition and integration costs are not included in the combined ratio.

| $ in Millions | As of December 31, 2021 | As of December 31, 2020 | Change |
|---|---|---|---|
| Short-term debt[1] | $473 | $330 | 43.3% |
| Long-term debt | 9,181 | 8,497 | 8.0 |
| Total debt | $9,654 | $8,827 | 9.4% |
| Unassigned equity | $28,776 | $25,708 | 11.9% |
| Accumulated other comprehensive (loss) income | (960) | 218 | NM |
| Non-controlling interest | 32 | 31 | 3.2 |
| Total equity | $27,848 | $25,957 | 7.3% |

1 Short-term debt is the current maturity of the 4.95% Notes, due May 1, 2022 and the 5.00% Notes, due June 1, 2021, respectively.
NM = Not Meaningful

**Subsequent Events**

Management has assessed material subsequent events through February 23, 2022, 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.

Liberty Mutual Metals and Mining signed an agreement in August 2021 to sell a subsidiary entity (Baralaba Coal Company) and recorded an incremental impairment of $10 million in Q4, bringing the total YTD impairment to $509 million. The transaction closed in December 2021 with a realized loss incurred of $30 million.

On June 8, 2021, it was announced that Independence Energy ("ICO") was entering into a reverse takeover of Contango Oil and Gas, a public company, through an "Up-C" structure, whereby a new publicly traded company was established (Crescent Energy, ticker CRGY) with underlying ownership split 76% to ICO and its existing shareholders, and 24% to Contango's shareholders. The merger transaction closed on December 9, 2021 at which point the Company exchanged its 31% ownership in ICO, for a 23.5% ownership in a new operating entity, Crescent Energy OpCo LLC, whose shares are exchangeable 1-for-1 with the public company. Given the change in the Company's investment to a new entity, fair value option accounting was elected and the stock price of CRGY has been volatile since trading opened, resulting in a change in fair value of ($306) million booked for Q4. This transaction furthers the evolution of our energy holdings from a direct investing model to an experienced operator that provides product expertise and geographic diversification.

On August 16, 2021, Liberty Mutual Group Inc. ("LMGI") issued $500 million of Series F Junior Subordinated Notes, due 2051 (the "Series F Notes"). Interest is payable semi-annually at a fixed rate of 4.125%. The Series F Notes may be redeemed in whole or in part three months prior to and on December 15, 2026, after which the notes may be redeemed during the three-month period prior to and on each succeeding interest reset date. The interest reset dates are on each five-year anniversary of December 15, 2021 until December 15, 2051.

On July 12, 2021, the Company announced that it has signed a definitive agreement pursuant to which Liberty Mutual would acquire State Automobile Mutual Insurance Company ("State Auto Mutual"), a super-regional insurance holding company headquartered in Columbus, Ohio. Under the terms of the agreement, State Auto Mutual members will become mutual members of Liberty Mutual and Liberty Mutual will acquire all of the publicly held shares of common stock of State Auto Financial Corporation ("STFC") for $52 per share in cash. The STFC shareholders and the State Auto Mutual members have approved the acquisition. The deal is expected to close in 2022, pending regulatory approval as well as other customary closing conditions.

On July 19, 2021, the Company announced it will be applying for regulatory approval to acquire Malaysian insurer AmGeneral Insurance Berhad ("AmGeneral"). Subject to receiving appropriate regulatory approvals, Liberty Insurance Berhad will acquire 100% shares of AmGeneral, and AmBank Group's share of the sale proceeds will be in the form of cash and consideration shares, which will result in AmBank Group holding a 30% interest in the Liberty Insurance Berhad and AmGeneral businesses. The AmGeneral and Liberty Insurance Berhad operations will, at a subsequent date, be formally merged.

On February 1, 2021, LMGI issued $800 million of Series E Junior Subordinated Notes, due 2061 (the "Series E Notes"). Interest is payable semi-annually at a fixed rate of 4.30%. The Series E Notes may be redeemed in whole or in part on February 1, 2026, after which the notes may be redeemed on any interest payment date thereafter until February 1, 2061.

The Company has offered eligible employees an early retirement option. The Company calculated the cost of irrevocable acceptances of this special termination benefit to be $577 million, which was recognized in the fourth quarter of 2020 and was reflected in restructuring costs in the Consolidated Statements of Income. A settlement loss of $172 million was accrued through the fourth quarter of 2021 due to the volume of lump sum cash payments.

On July 19, 2020, the Company entered into an agreement with an investment firm, whereby both parties contributed various energy assets into a new joint venture vehicle. The Company contributed its entire interest in Liberty Energy, LLC to the joint venture in exchange for a minority interest in the new entity ("Liberty Energy, LLC transaction"). A $231 million impairment and subsequent gain of $26 million upon finalizing the sale were reflected in the Consolidated Statements of Income.

On May 7, 2020, LMGI issued $500 million of Senior Notes due 2060 (the "2060 Notes") and LMGI exchanged $246 million par value of 2060 Notes for $29 million of its 7.00% Senior Notes due 2034, $29 million of its 6.50% Senior Notes due 2035, $20 million of its 6.50% Senior Notes due 2042, $50 million of its 4.85% Senior Notes due 2044 and $118 million of its 4.50% Senior Notes due 2049 (all such series of Senior Notes subject to the exchange offer, the "Target Notes"). Interest is payable semi-annually at a fixed rate of 3.95%. The exchanged notes are fully fungible with the 2060 Notes. The 2060 Notes mature on May 15, 2060. LMGI utilized a portion of the cash proceeds received from the issuance of the 2060 Notes for the retirement of its 5.00% Senior Notes on June 1, 2021.

Concurrently with the 2060 Notes 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 6.50% Senior Notes due 2035 and a nominal amount of its 6.50% Senior Notes due 2042.

As a consequence of the COVID-19 stay at home orders in effect throughout much of the United States and abroad, policyholders were driving fewer miles than normal. Accordingly, on April 7, 2020, the Company announced its Personal Auto Customer Relief Refund ("PACRR") plan which gave 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. The aggregate payments made under the PACRR and BOP customer support programs was $339 million. 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 June 15, 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 were 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 remained in effect for all personal auto policies in all states for losses occurring from March 16 to June 1, 2020 and reported by July 1, 2020.

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 accrued a reserve of $52 million, net of tax, for the year ended 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. During 2020, the Company booked an additional $17 million, net of tax, presented in discontinued operations in the Consolidated Statements of Income to reflect a final closing balance sheet settlement related to the sale of LLAC.

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 products distributed through brokers and independent agents globally. 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:

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Private passenger automobile | $3,627 | $3,395 | 6.8% | $14,901 | $13,869 | 7.4% |
| Homeowners | 1,958 | 1,665 | 17.6 | 7,679 | 6,800 | 12.9 |
| Global Risk Solutions specialty insurance[1] | 1,276 | 999 | 27.7 | 4,382 | 3,450 | 27.0 |
| Global Risk Solutions reinsurance | 544 | 445 | 22.2 | 2,604 | 2,205 | 18.1 |
| Commercial property[2] | 591 | 425 | 39.1 | 2,266 | 1,589 | 42.6 |
| Global Risk Solutions casualty[2,3] | 599 | 577 | 3.8 | 2,206 | 1,977 | 11.6 |
| Commercial multiple-peril[2] | 500 | 505 | (1.0) | 2,024 | 2,175 | (6.9) |
| Commercial automobile | 521 | 514 | 1.4 | 1,848 | 1,908 | (3.1) |
| Workers compensation | 366 | 432 | (15.3) | 1,618 | 1,833 | (11.7) |
| Surety | 257 | 259 | (0.8) | 1,141 | 1,133 | 0.7 |
| Global Retail Markets general liability | 232 | 211 | 10.0 | 968 | 887 | 9.1 |
| Global Risk Solutions inland marine[4] | 148 | 142 | 4.2 | 574 | 563 | 2.0 |
| Global Risk Solutions other reinsurance | 65 | 202 | (67.8) | 140 | 876 | (84.0) |
| Corporate reinsurance[5] | (17) | (9) | 88.9 | (222) | (130) | 70.8 |
| Other[6] | 361 | 333 | 8.4 | 1,550 | 1,489 | 4.1 |
| Total NWP | $11,028 | $10,095 | 9.2% | $43,679 | $40,624 | 7.5% |

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 Includes shift between underwriting systems resulting in commercial multiple-peril policies converting to casualty and commercial property in Global Risk Solutions.
3 Global Risk Solutions casualty primarily includes general liability, excess & umbrella and environmental lines of business.
4 Global Risk Solutions inland marine includes handset protection coverage for lost or damaged wireless devices.
5 NWP associated with internal reinsurance assumed into Corporate, net of corporate external placements.
6 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 December 31, 2021 was $11.028 billion, an increase of $933 million over the same period in 2020.

Significant changes by major line of business for the three months ended December 31, 2021 include:

- Private passenger automobile NWP increased $232 million. The increase reflects solid retention and rate increases taken to offset rising personal lines severity trends.
- Homeowners NWP increased $293 million. The increase reflects solid retention, higher home insured values and rate increases taken to offset rising personal lines severity trends.
- Global Risk Solutions specialty insurance NWP increased $277 million. The increase reflects favorable rate, new business and the impact of internal reinsurance changes.
- Global Risk Solutions reinsurance NWP increased $99 million. The increase reflects favorable reinstatement premiums, rate and the impact of internal reinsurance changes.
- Commercial property NWP increased $166 million. The increase reflects strong new business production, favorable rate, higher retention and the impact of internal reinsurance changes.
- Global Risk Solutions other reinsurance NWP decreased $137 million. The decrease reflects the net impact of internal reinsurance changes.

NWP for the twelve months ended December 31, 2021 was $43.679 billion, an increase of $3.055 billion over the same period in 2020.

Significant changes by major line of business for the twelve months ended December 31, 2021 include:

- Private passenger automobile NWP increased $1.032 billion. The increase reflects solid retention and new business production and an increase in average written premium due to rate increases. Also adding to the increase were auto premium relief refunds in response to COVID-19 that were issued in 2020 that did not recur to the same extent in 2021 and favorable foreign exchange.
- Homeowners NWP increased $879 million. The increase reflects strong new business and retention and favorable rate.
- Global Risk Solutions specialty insurance NWP increased $932 million. The increase reflects favorable rate, strong new business and retention, and the impact of internal reinsurance changes.
- Global Risk Solutions reinsurance NWP increased $399 million. The increase reflects favorable foreign exchange, rate and the impact of internal reinsurance changes.
- Commercial property NWP increased $677 million. The increase reflects favorable rate and new business production, higher retention and the impact of internal reinsurance changes.
- Global Risk Solutions other reinsurance NWP decreased $736 million. The decrease reflects the net impact of internal reinsurance changes.

Consolidated NWP by business was as follows:

| | **Three Months Ended December 31,** | | | **Twelve Months Ended December 31,** | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Global Retail Markets | $7,237 | $6,673 | 8.5% | $29,319 | $27,401 | 7.0% |
| Global Risk Solutions | 3,831 | 3,429 | 11.7 | 14,602 | 13,346 | 9.4 |
| Corporate and Other | (40) | (7) | NM | (242) | (123) | 96.7 |
| Total NWP | $11,028 | $10,095 | 9.2% | $43,679 | $40,624 | 7.5% |
| Foreign exchange effect on growth | | | (0.3) | | | 0.6 |
| NWP growth excluding foreign exchange[1] | | | 9.5% | | | 6.9% |

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

Consolidated NWP by geographic distribution channels was as follows:

| | **Three Months Ended December 31,** | | | **Twelve Months Ended December 31,** | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| U.S. | $8,484 | $8,028 | 5.7% | $33,973 | $32,349 | 5.0% |
| International excluding foreign exchange[1] | 2,577 | 2,067 | 24.7 | 9,472 | 8,275 | 14.5 |
| Foreign exchange[1] | (33) | - | NM | 234 | - | NM |
| Total NWP | $11,028 | $10,095 | 9.2% | $43,679 | $40,624 | 7.5% |

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*

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Revenues | $12,221 | $11,796 | 3.6% | $48,200 | $43,796 | 10.1% |
| PTOI before catastrophes, COVID-19, net incurred losses attributable to prior years, current accident year re-estimation and partnerships, LLC and other equity method income | $790 | $897 | (11.9%) | $3,804 | $4,187 | (9.1%) |
| Catastrophes[1] | (143) | (359) | (60.2) | (3,057) | (2,523) | 21.2 |
| COVID-19[2] | - | (115) | (100.0) | - | (680) | (100.0) |
| Net incurred losses attributable to prior years: | | | | | | |
| - Asbestos and environmental[3] | (151) | (211) | (28.4) | (150) | (209) | (28.2) |
| - All other[4] | (163) | (442) | (63.1) | 67 | (588) | NM |
| Current accident year re-estimation[5] | 19 | 197 | (90.4) | - | - | - |
| Pre-tax operating income (loss) before partnerships, LLC and other equity method income | 352 | (33) | NM | 664 | 187 | NM |
| Partnerships, LLC and other equity method income[6] | 916 | 494 | 85.4 | 3,708 | 711 | NM |
| Pre-tax operating income | 1,268 | 461 | 175.1 | 4,372 | 898 | NM |
| Net realized (losses) gains | (305) | 415 | NM | (222) | 790 | NM |
| Unit linked life insurance | (31) | (51) | (39.2) | (126) | (30) | NM |
| Acquisition & integration costs | (8) | (2) | NM | (21) | (18) | (16.7) |
| Restructuring costs | (46) | (596) | (92.3) | (193) | (626) | (69.2) |
| Pre-tax income | 878 | 227 | NM | 3,810 | 1,014 | NM |
| Income tax expense | 156 | 67 | 132.8 | 740 | 237 | NM |
| Consolidated net income from continuing operations | 722 | 160 | NM | 3,070 | 777 | NM |
| Discontinued operations, net of tax | - | 2 | (100.0) | - | (17) | (100.0) |
| Consolidated net income | 722 | 162 | NM | 3,070 | 760 | NM |
| Less: Net income attributable to non-controlling interest | - | - | - | 2 | 2 | - |
| Net income attributable to LMHC | 722 | 162 | NM | 3,068 | 758 | NM |
| Net income attributable to LMHC excluding unrealized impact[7] | 716 | 23 | NM | 2,795 | 671 | NM |
| Cash flow provided by continuing operations | $889 | $1,542 | (42.3%) | $5,570 | $6,448 | (13.6%) |

1 Catastrophes are defined as a natural catastrophe, civil unrest, 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 Includes Global Risk Solutions estimated loss activity directly related to COVID-19 in 2020.

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

4 Net of earned premium and reinstatement premium attributable to prior years of $118 million and $271 million for the three and twelve months ended December 31, 2021, and $83 million and $301 million for the same periods in 2020.

5 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2021 and September 30, 2020.

6 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.

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

NM = Not Meaningful

| Partnerships, LLC and Other Equity Method Income | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| $ in Millions | 2021 | 2020 | Change | 2021 | 2020 | Change |
| LP, LLC and other equity method income[1] | $861 | $518 | 66.2% | $3,666 | $843 | NM |
| Direct investment in natural resources revenues[2] | 118 | 19 | NM | 252 | 142 | 77.5% |
| Direct investment in natural resources expenses[3] | (63) | (43) | 46.5% | (210) | (274) | (23.4%) |
| Partnerships, LLC and other equity method income | $916 | $494 | 85.4% | $3,708 | $711 | NM |

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.
NM = Not Meaningful

| Net Investment Income | Three Months Ended December 31, | | Twelve Months Ended December 31, | |
|---|---|---|---|---|
| $ in Millions | 2021 | 2020 | 2021 | 2020 |
| Taxable interest income | $453 | $437 | $1,785 | $1,744 |
| Tax-exempt interest income | 36 | 39 | 144 | 158 |
| Dividends | 20 | 14 | 46 | 35 |
| LP, LLC and other equity method income | 861 | 518 | 3,666 | 843 |
| Commercial mortgage loans | 22 | 23 | 84 | 86 |
| Other investment income (loss) | 5 | (3) | 12 | 5 |
| Gross investment income | 1,397 | 1,028 | 5,737 | 2,871 |
| Investment expenses[1] | (94) | (75) | (322) | (277) |
| Total net investment income | $1,303 | $953 | $5,415 | $2,594 |

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

| Net Realized (Losses) Gains<br>$ in Millions | Sales & Settlements | Impairments | Unrealized Gains (Losses) | Total |
|---|---|---|---|---|
| **Three Months Ended December 31, 2021:** | | | | |
| Fixed maturities | ($8) | ($8) | $- | ($16) |
| Equities | 52 | - | 98 | 150 |
| Derivatives | (41) | - | 4 | (37) |
| Other | (293) | (15) | (94) | (402) |
| Total | ($290) | ($23) | $8 | ($305) |
| **Three Months Ended December 31, 2020:** | | | | |
| Fixed maturities | $169 | ($3) | $- | $166 |
| Equities | 11 | - | 205 | 216 |
| Derivatives | 41 | - | 9 | 50 |
| Other | (19) | (6) | 8 | (17) |
| Total | $202 | ($9) | $222 | $415 |

| **Net Realized (Losses) Gains $ in Millions** | **Sales & Settlements** | **Impairments** | **Unrealized Gains (Losses)** | **Total** |
|---|---|---|---|---|
| **Twelve Months Ended December 31, 2021:** | | | | |
| Fixed maturities | $275 | ($13) | $- | $262 |
| Equities | 45 | - | 409 | 454 |
| Derivatives | 23 | - | 16 | 39 |
| Other | (296) | (612) | (69) | (977) |
| Total | $47 | ($625) | $356 | ($222) |
| **Twelve Months Ended December 31, 2020:** | | | | |
| Fixed maturities | $1,039 | ($46) | $- | $993 |
| Equities | 10 | - | 123 | 133 |
| Derivatives | (8) | - | (6) | (14) |
| Other | (72) | (261) | 11 | (322) |
| Total | $969 | ($307) | $128 | $790 |

| **Unrealized Gains (Losses) Related to Equity Securities[1]** | **Three Months Ended December 31,** | | | **Twelve Months Ended December 31,** | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Net gains recognized during the period on equity securities | $4 | $213 | (98.1%) | $340 | $134 | 153.7% |
| Less: Net gains (losses) recognized during the period on equity securities sold during the period | 4 | (4) | NM | 8 | (30) | NM |
| Unrealized gains recognized during the reporting period on equity securities still held at the reporting date | $- | $217 | (100.0%) | $332 | $164 | 102.8% |

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

Fourth Quarter Results:

Pre-tax operating income (loss) before partnerships, LLC and other equity method income for the three months ended December 31, 2021 was $352 million, versus ($33) million for the same period in 2020. Pre-tax operating income before catastrophes, COVID-19, net incurred losses attributable to prior years, current accident year re-estimation and partnerships, LLC and other equity method income was $790 million, a decrease of $107 million from the same period in 2020. The decrease reflects higher non-catastrophe losses in U.S. personal lines and higher expenses in Global Risk Solutions, partially offset by profit margin on earned premium driven by strong topline results in both Global Retail Markets and Global Risk Solutions and improved current accident year losses in Global Risk Solutions. Including the impact of catastrophes, net incurred losses attributable to prior years, COVID-19 and current accident year re-estimation, the change in pre-tax operating income (loss) primarily reflects the items mentioned above, higher catastrophe losses due to higher severity of events compared to 2020, offset by lower frequency of events and increased reinsurance recoveries. Also offsetting were COVID-19 related losses in Q4 2020 that did not recur in Q4 2021, lower current accident year re-estimation and lower net incurred losses attributable to prior years, primarily on casualty lines of business and from greater U.S. personal lines prior year non-catastrophe and prior year catastrophe reserve releases.

Partnerships, LLC, and other equity method income, including operating income from direct investments in natural resources, for the three months ended December 31, 2021 was $916 million, an increase of $422 million over the same period in 2020. The increase reflects favorable valuations across the LP, LLC, and other equity method investments as a result of improving market conditions, primarily driven by private capital and energy investments.

Revenues for the three months ended December 31, 2021 were $12.221 billion, an increase of $425 million over the same period in 2020. The major components of revenues are net premium earned, net investment income, net realized gains (losses), and fee and other revenues.

Net premium earned for the three months ended December 31, 2021 was $10.890 billion, an increase of $681 million over the same period in 2020. The increase primarily reflects the premium earned associated with the changes in NWP previously discussed.

Net investment income for the three months ended December 31, 2021 was $1.303 billion, an increase of $350 million over the same period in 2020. The increase reflects favorable valuations across the LP, LLC, and other equity method investments as a result of improving market conditions, primarily driven by private capital and energy investments.

Net realized (losses) gains for the three months ended December 31, 2021 were ($305) million versus $415 million for the same period in 2020. The net realized losses in the current period were primarily driven by $377 million losses on natural resource investments and $41 million losses on derivatives, partially offset by $98 million net change in equity unrealized gains and $52 million net gains on equity sales. The prior period was impacted by a $205 million net change in equity unrealized gains, $169 million of net gains on fixed maturity sales, and a $50 million net gain on derivatives.

Fee and other revenues for the three months ended December 31, 2021 were $333 million, an increase of $114 million over the same period in 2020. The increase primarily reflects higher natural resource revenues.

Claims, benefits and expenses for the three months ended December 31, 2021 were $11.258 billion, an increase of $338 million over the same period in 2020. The increase primarily reflects higher non-catastrophe losses in Global Retail Markets primarily in U.S. personal lines, higher catastrophe losses in the U.S. due to higher severity and higher expenses in Global Risk Solutions. These were partially offset by increased reinsurance recoveries related to increased catastrophe losses, lower net incurred losses attributable to prior years and favorable current year loss activity in Global Risk Solutions.

Income tax expense on continuing operations for the three months ended December 31, 2021 was $156 million, an increase of $89 million over the same period in 2020. The Company's effective tax rate for the three months ended December 31, 2021 was 18% compared to 30% for the same period in 2020. The decrease in the effective tax rate from 2020 to 2021 was primarily due to the impact of non-U.S. operations.

Discontinued operations, net of tax, for the three months ended December 31, 2021 were zero versus $2 million for the same period in 2020. The balance in 2020 was driven by a closing balance sheet settlement related to the sale of LLAC.

Net income attributable to LMHC for the three months ended December 31, 2021 was $722 million, an increase of $560 million over the same period in 2020.

Cash flow provided by continuing operations for the three months ended December 31, 2021 was $889 million, a decrease of $653 million from the same period in 2020. The decrease reflects unfavorable paid loss activity and expenses paid in Global Retail Markets.

Year-to-date Results:

Pre-tax operating income before partnerships, LLC and other equity method income for the twelve months ended December 31, 2021 was $664 million, an increase of $477 million over the same period in 2020. Pre-tax operating income before catastrophes, COVID-19, net incurred losses attributable to prior years, and partnerships, LLC and other equity method income was $3.804 billion, a decrease of $383 million from the same period in 2020. The decrease primarily reflects higher non-catastrophe losses in U.S. personal lines, higher advertising spend and variable expenses due to increases in topline in Global Retail Markets, increased employee related costs and reinsurance costs. These were partially offset by the customer refunds that were issued in 2020 that did not recur to the same extent in 2021 in Global Retail Markets, improved current accident year losses in Global Risk Solutions and profit margin on earned premium driven by strong results in Global Retail Markets and Global Risk Solutions. Including the impact of catastrophes, net incurred losses attributable to prior years and COVID-19, the increase in pre-tax operating income primarily reflects the items mentioned above, the impact of COVID-19 related losses in 2020 that did not recur in 2021 and lower net incurred losses attributable to prior years, primarily on casualty lines of business and from greater

U.S. personal lines prior year non-catastrophe and prior year catastrophe reserve releases. These increases are partially offset by higher catastrophe losses (driven by winter ice storm events, Hurricane Ida and the Germany Floods, offset by reinsurance recoveries).

Partnerships, LLC, and other equity method income, including operating income from direct investments in natural resources, for the twelve months ended December 31, 2021 was $3.708 billion, an increase of $2.997 billion over the same period in 2020. The increase reflects favorable valuations across the LP, LLC, and other equity method investments as a result of improving market conditions, primarily driven by private capital investments.

Revenues for the twelve months ended December 31, 2021 were $48.200 billion, an increase of $4.404 billion over the same period in 2020. The major components of revenues are net premium earned, net investment income, net realized gains (losses), and fee and other revenues.

Net premium earned for the twelve months ended December 31, 2021 was $41.941 billion, an increase of $2.450 billion over the same period in 2020. The increase primarily reflects the premium earned associated with the changes in NWP previously discussed.

Net investment income for the twelve months ended December 31, 2021 was $5.415 billion, an increase of $2.821 billion over the same period in 2020. The increase reflects favorable valuations across the LP, LLC, and other equity method investments as a result of improving market conditions, primarily driven by private capital investments.

Net realized (losses) gains for the twelve months ended December 31, 2021 were ($222) million versus $790 million for the same period in 2020. The net realized losses in the current period were primarily driven by impairments and net losses on natural resource investments of $610 million and $332 million, respectively. These losses were partially offset by $409 million net change in equity unrealized gains, $275 million net gains on fixed maturity sales, and $45 net gains on equity sales. The prior period was impacted by $1.039 billion of net gains on fixed maturity sales and a $123 million net change in equity unrealized gains, partially offset by a $205 million net loss on the Liberty Energy, LLC transaction and $70 million of net losses in metals and mining.

Fee and other revenues for the twelve months ended December 31, 2021 were $1.066 billion, an increase of $145 million over the same period in 2020. The increase primarily reflects increased non-traditional revenue in Global Retail Markets, increased billing fees and higher natural resource revenues.

Claims, benefits and expenses for the twelve months ended December 31, 2021 were $44.050 billion, an increase of $1.942 billion over the same period in 2020. The increase primarily reflects higher non-catastrophe losses in Global Retail Markets, higher advertising spend and variable expenses due to increases in topline, higher catastrophe losses (due to the winter ice storm events, Hurricane Ida and the Germany Floods, offset by reinsurance recoveries), and higher attritional losses and unfavorable current accident year large losses in Global Risk Solutions. These were partially offset by the impact of COVID-19 related losses in 2020 that did not recur in 2021, favorable current year loss activity in Global Risk Solutions and lower net incurred losses attributable to prior years.

Income tax expense on continuing operations for the twelve months ended December 31, 2021 was $740 million, an increase of $503 million over the same period in 2020. The Company’s effective tax rate for the twelve months ended December 31, 2021 was 19% compared to 23% for the same period in 2020. The decrease in the effective tax rate from 2020 to 2021 was primarily driven by the disposition of a subsidiary and the impact of non-U.S. operations.

Discontinued operations, net of tax, for the twelve months ended December 31, 2021 were zero versus ($17) million for the same period in 2020. The balance in 2020 was driven by a closing balance sheet settlement related to the sale of LLAC.

Net income attributable to LMHC for the twelve months ended December 31, 2021 was $3.068 billion, an increase of $2.310 billion over the same period in 2020.

Cash flow provided by continuing operations for the twelve months ended December 31, 2021 was $5.570 billion, a decrease of $878 million from the same period in 2020. The decrease reflects unfavorable paid loss activity and expenses paid in Global Retail Markets, partially offset by higher premium collection in Global Retail Markets and Global Risk Solutions and favorable paid loss activity in Global Risk Solutions.

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **CONSOLIDATED** | **2021** | **2020** | **Change (Points)** | **2021** | **2020** | **Change (Points)** |
| **Combined ratio before catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation** | | | | | | |
| Claims and claim adjustment expense ratio | 65.5% | 62.9% | 2.6 | 63.9% | 61.9% | 2.0 |
| Underwriting expense ratio | 29.6 | 30.2 | (0.6) | 29.4 | 29.7 | (0.3) |
| Subtotal | 95.1 | 93.1 | 2.0 | 93.3 | 91.6 | 1.7 |
| Catastrophes[1] | 1.3 | 3.5 | (2.2) | 7.4 | 6.4 | 1.0 |
| COVID-19[2] | - | 1.1 | (1.1) | - | 1.7 | (1.7) |
| Net incurred losses attributable to prior years: | | | | | | |
| - Asbestos and environmental | 1.4 | 2.1 | (0.7) | 0.4 | 0.6 | (0.2) |
| - All other[3] | 1.6 | 4.4 | (2.8) | (0.3) | 1.5 | (1.8) |
| Current accident year re-estimation[4] | (0.2) | (1.9) | 1.7 | - | - | - |
| Total combined ratio[5] | 99.2% | 102.3% | (3.1) | 100.8% | 101.8% | (1.0) |

1 Catastrophes are defined as a natural catastrophe, civil unrest, 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 Includes Global Risk Solutions estimated loss activity directly related to COVID-19 in 2020.

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

4 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2021 and September 30, 2020.

5 The combined ratio, expressed as a percentage, is a measure of underwriting profitability. This measure should only be used in conjunction with, and not in lieu of, underwriting income and may not be comparable to other performance measures used by the Company's competitors. The combined ratio is computed as the sum of the following property and casualty ratios: the ratio of claims and claim adjustment expense less managed care income to earned premium; the ratio of insurance operating costs plus amortization of deferred policy acquisition costs less third-party administration income and fee income (primarily related to the Company's involuntary market servicing carrier operations) and installment charges to earned premium; and the ratio of policyholder dividends to earned premium. Provisions for uncollectible premium and reinsurance are not included in the combined ratio unless related to an asbestos and environmental commutation and certain other run off. Restructuring and acquisition and integration costs are not included in the combined ratio.

Fourth Quarter Results:

The consolidated combined ratio before catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation for the three months ended December 31, 2021 was 95.1%, an increase of 2.0 points over the same period in 2020. The increase was primarily driven by an increase in the claims and claim adjustment expense ratio due to higher non-catastrophe losses in U.S. personal lines, partially offset by higher earned premium in both Global Retail Markets and Global Risk Solutions and lower current year losses in Global Risk Solutions.

Including the impact of catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation, the total combined ratio for the three months ended December 31, 2021 was 99.2%, a decrease of 3.1 points from the same period in 2020. The decrease was driven by lower net incurred losses attributable to prior years driven by strengthening in 2020 that did not recur at the same level, lower current year catastrophe losses and the impact of COVID-19 related losses in 2020 that did not recur in 2021, partially offset by current accident year re-estimation in 2020 that did not recur in 2021 to the same extent.

Year-to-date Results:

The consolidated combined ratio before catastrophes, COVID-19 and net incurred losses attributable to prior years for the twelve months ended December 31, 2021 was 93.3%, an increase of 1.7 points over the same period in 2020. The increase was primarily driven by an increase in the claims and claim adjustment expense ratio due to higher non-catastrophe losses in U.S. personal lines, partially offset by higher earned premium and lower current year losses in Global Risk Solutions. The decrease in the underwriting expense ratio was primarily driven by higher earned premium, partially offset by increased employee related costs, higher advertising spend, and foreign exchange.

Including the impact of catastrophes, COVID-19 and net incurred losses attributable to prior years, the total combined ratio for the twelve months ended December 31, 2021 was 100.8%, a decrease of 1.0 points from the same period in 2020. The decrease was driven by the impact of COVID-19 related losses in 2020 that did not recur in 2021 and lower net incurred losses attributable to prior years driven by strengthening in 2020 that did not recur at the same level, partially offset by higher current year catastrophe losses and the changes to the combined ratio mentioned above.

## 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, 1,330 licensed telesales counselors, independent agents, third-party producers, online, and sponsored affinity groups. U.S. Business Lines serves small commercial customers through an operating model that combines local underwriting, market knowledge and service with the scale advantages of a national company.

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

East sells property and casualty, health and life insurance products and services to individuals and businesses in the Asia Market (Thailand, Singapore, Hong Kong, Vietnam), Malaysia, India, and China. Private passenger automobile insurance is the single largest line of business.

Global Retail Markets Reinsurance consists of certain internal reinsurance programs.

On July 12, 2021, the Company announced that it has signed a definitive agreement pursuant to which Liberty Mutual would acquire State Auto Mutual, a super-regional insurance holding company headquartered in Columbus, Ohio. Under the terms of the agreement, State Auto Mutual members will become mutual members of Liberty Mutual and Liberty Mutual will acquire all of the publicly held shares of common stock of STFC for $52 per share in cash. The STFC shareholders and the State Auto Mutual members have approved the acquisition. The deal is expected to close in 2022, pending regulatory approval as well as other customary closing conditions.

On July 19, 2021, the Company announced it will be applying for regulatory approval to acquire Malaysian insurer AmGeneral. Subject to receiving appropriate regulatory approvals, Liberty Insurance Berhad will acquire 100% shares of AmGeneral, and AmBank Group's share of the sale proceeds will be in the form of cash and consideration shares, which will result in AmBank Group holding a 30% interest in the Liberty Insurance Berhad and AmGeneral businesses. The AmGeneral and Liberty Insurance Berhad operations will, at a subsequent date, be formally merged.

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:

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| U.S. | $6,254 | $5,695 | 9.8% | $25,518 | $23,655 | 7.9% |
| West | 652 | 674 | (3.3) | 2,547 | 2,542 | 0.2 |
| East | 329 | 300 | 9.7 | 1,235 | 1,181 | 4.6 |
| Global Retail Markets Reinsurance | 2 | 4 | (50.0) | 19 | 23 | (17.4) |
| Total NWP | $7,237 | $6,673 | 8.5% | $29,319 | $27,401 | 7.0% |
| Foreign exchange effect on growth | | | (0.5) | | | 0.2 |
| NWP growth excluding foreign exchange[1] | | | 9.0% | | | 6.8% |

1 Determined by assuming constant foreign exchange rates between periods.

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

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Private passenger automobile | $3,627 | $3,395 | 6.8% | $14,901 | $13,869 | 7.4% |
| Homeowners | 1,958 | 1,665 | 17.6 | 7,679 | 6,800 | 12.9 |
| Commercial multiple-peril | 469 | 457 | 2.6 | 1,899 | 1,936 | (1.9) |
| Commercial automobile | 322 | 340 | (5.3) | 1,218 | 1,310 | (7.0) |
| General liability | 232 | 211 | 10.0 | 968 | 887 | 9.1 |
| Workers compensation | 123 | 126 | (2.4) | 557 | 605 | (7.9) |
| Commercial property | 144 | 145 | (0.7) | 538 | 491 | 9.6 |
| Life and health | 94 | 82 | 14.6 | 431 | 387 | 11.4 |
| Other[1] | 268 | 252 | 6.3 | 1,128 | 1,116 | 1.1 |
| Total NWP | $7,237 | $6,673 | 8.5% | $29,319 | $27,401 | 7.0% |

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.

Fourth Quarter Results:

NWP for the three months ended December 31, 2021 was $7.237 billion, an increase of $564 million over the same period in 2020. This increase was driven by:

- U.S. personal lines due to solid retention, higher home insured values and rate increases taken to offset rising personal lines severity trends.
- The East region due to higher results in private passenger auto in China, Thailand, and Hong Kong.

Partially offsetting the premium increase was:

- The impact of foreign exchange as many international currencies weakened versus the U.S. dollar, most notably the euro and Brazilian real.

Year-to-date Results:

NWP for the twelve months ended December 31, 2021 was $29.319 billion, an increase of $1.918 billion over the same period in 2020. This increase was driven by:

- U.S. personal lines due to solid retention and new business production and an increase in average written premium due to rate increases in private passenger auto and personal property.
- 2020 results included $307 million of premium relief refunds in U.S. personal lines and business lines, as well as in select West region markets. These refunds did not reoccur this year.

- The impact of foreign exchange as many international currencies strengthened versus the U.S. dollar, primarily the euro and the Chinese yuan.

Partially offsetting the premium increase was:

- U.S. business lines due to lower new and renewal business results.

***Results of Operations – Global Retail Markets***

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Revenues | $7,690 | $7,379 | 4.2% | $30,008 | $28,471 | 5.4% |
| PTOI before catastrophes, net incurred losses attributable to prior years and current accident year re-estimation | $597 | $747 | (20.1%) | $2,794 | $3,507 | (20.3%) |
| Catastrophes[1] | (376) | (286) | 31.5 | (2,339) | (2,100) | 11.4 |
| Net incurred losses attributable to prior years | 182 | 157 | 15.9 | 451 | 132 | NM |
| Current accident year re-estimation[2] | - | 197 | (100.0) | - | - | - |
| Pre-tax operating income | $403 | $815 | (50.6%) | $906 | $1,539 | (41.1%) |

1 Catastrophes are defined as a natural catastrophe, civil unrest, 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 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2020.

NM = Not Meaningful

Fourth Quarter Results:

Pre-tax operating income for the three months ended December 31, 2021 was $403 million, a decrease of $412 million from the same period in 2020. Pre-tax operating income before catastrophes, net incurred losses attributable to prior years, and current accident year re-estimation was $597 million, a decrease of $150 million from the same period in 2020. The decrease was driven by higher non-catastrophe losses in the U.S. primarily in personal auto due to increased frequency and severity and personal property due to higher severity, partially offset by profit margin on earned premium. Inflationary trends have been a primary driver of the increase in severity in the quarter as auto severity was impacted by higher used car prices and upward pressure on repairable trends, and property was impacted by increasing material and labor costs. Including the impact of catastrophes, net incurred losses attributable to prior years, and current accident year re-estimation, the decrease was driven by higher catastrophe losses in the U.S. due to higher severity of events compared to 2020, partially offset by fewer events in the period. The decrease was also driven by current accident year re-estimation in 2020 due to favorability in U.S. auto liability recognized in the fourth quarter, related to lower frequency trends throughout the year. Partially offsetting the decrease were greater U.S. prior year non-catastrophe and prior year catastrophe reserve releases in the period for 2021 versus 2020.

Revenues for the three months ended December 31, 2021 were $7.690 billion, an increase of $311 million over the same period in 2020. The increase was driven by higher earned premiums due to the topline impacts previously discussed. Partially offsetting the increase in revenue was lower net investment income.

Claims, benefits, and expenses for the three months ended December 31, 2021 were $7.257 billion, an increase of $744 million over the same period in 2020. The increase was primarily driven by higher non-catastrophe losses in U.S. personal lines. Adding to the increase were higher catastrophe losses in the U.S. due to higher severity of events compared to 2020, higher advertising spend, and increased spend on independent adjustors due to higher utilization. Partially offsetting the increase were greater U.S. prior year non-catastrophe and prior year catastrophe reserve releases in the period for 2021 versus 2020 and favorable personnel expense driven by lower staffing levels.

Year-to-date Results:

Pre-tax operating income for the twelve months ended December 31, 2021 was $906 million, a decrease of $633 million from the same period in 2020. Pre-tax operating income before catastrophes and net incurred losses attributable to prior years was $2.794 billion, a decrease of $713 million from the same period in 2020. The decrease was driven by higher non-catastrophe losses across all three regions, primarily in personal auto and personal property, as auto frequency and homeowner claims have returned to near pre-pandemic levels, partially offset by profit margin on earned premium and the customer refunds that were issued in 2020 that did not recur to the same extent in 2021. Including the impact of catastrophes and net incurred losses attributable to prior years, the decrease was driven by higher catastrophe losses in the U.S. due to higher severity of events compared to 2020, partially offset by fewer events in the year. Contributing to the large increase in catastrophe losses were the winter ice storm events that caused extremely low temperatures and power outages across many southern U.S. states and Hurricane Ida that hit the U.S. in August. Partially offsetting the decrease were greater prior year catastrophe and non-catastrophe reserve releases in the U.S. in 2021 versus 2020 and prior year non-catastrophe reserve releases in the West, particularly in the Western European Market.

Revenues for the twelve months ended December 31, 2021 were $30.008 billion, an increase of $1.537 billion over the same period in 2020. The increase was driven by the increase in earned premiums due to the topline impacts previously discussed. Partially offsetting the increase in revenue was lower net investment income.

Claims, benefits, and expenses for the twelve months ended December 31, 2021 were $28.961 billion, an increase of $2.035 billion over the same period in 2020. The increase was driven by higher non-catastrophe losses across all three regions and higher advertising, increased spend on independent adjustors due to higher utilization and variable expenses in the U.S. due to the increase in topline. Adding to the increase were higher catastrophe losses in the U.S. primarily due to the winter ice storm events in February and Hurricane Ida. Partially offsetting the decrease were greater prior year catastrophe and non-catastrophe reserve releases in the U.S. in 2021 versus 2020 and prior year non-catastrophe reserve releases in the West, particularly in the Western European Market.

| | **Three Months Ended December 31,** | | | **Twelve Months Ended December 31,** | | |
|---|---|---|---|---|---|---|
| **GLOBAL RETAIL MARKETS** | **2021** | **2020** | **Change (Points)** | **2021** | **2020** | **Change (Points)** |
| **Combined ratio before catastrophes, net incurred losses attributable to prior years and current accident year re-estimation** | | | | | | |
| Claims and claim adjustment expense ratio | 66.2% | 62.2% | 4.0 | 64.0% | 60.2% | 3.8 |
| Underwriting expense ratio | 27.9 | 30.1 | (2.2) | 28.4 | 29.4 | (1.0) |
| Subtotal | 94.1 | 92.3 | 1.8 | 92.4 | 89.6 | 2.8 |
| Catastrophes[1] | 5.1 | 4.1 | 1.0 | 8.2 | 7.8 | 0.4 |
| Net incurred losses attributable to prior years | (2.5) | (2.2) | (0.3) | (1.6) | (0.5) | (1.1) |
| Current accident year re-estimation[2] | - | (2.8) | 2.8 | - | - | - |
| Total combined ratio | 96.7% | 91.4% | 5.3 | 99.0% | 96.9% | 2.1 |

1 Catastrophes are defined as a natural catastrophe, civil unrest, 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 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2020.

Fourth Quarter Results:

The Global Retail Markets combined ratio before catastrophes, net incurred losses attributable to prior years, and current accident year re-estimation for the three months ended December 31, 2021 was 94.1%, an increase of 1.8 points over the same period in 2020. The increase was driven by an increase in the claims and claim adjustment expense ratio due to higher non-catastrophe losses in U.S. private passenger auto and personal property and increased spend on independent adjustors due to higher utilization. The increase in the claims and claim adjustment expense ratio was partially offset by a decrease in the underwriting expense ratio, primarily driven by earned premium growth and favorable personnel expense driven by lower staffing levels.

Including the impact of catastrophes, net incurred losses attributable to prior years, and current accident year re-estimation the total combined ratio for the three months ended December 31, 2021 was 96.7%, an increase of 5.3 points over the same period in 2020. The increase was driven by current accident year re-estimation in 2020 due to favorability in U.S. auto liability recognized in the fourth quarter, related to lower frequency trends throughout the year. Adding to the increase were higher catastrophe losses in the U.S. due to higher severity of events compared to 2020, partially offset by fewer events in the period. Partially offsetting the decrease were greater prior year non-catastrophe and prior year catastrophe reserve releases in the U.S. in the period for 2021 versus 2020.

Year-to-date Results:

The Global Retail Markets combined ratio before catastrophes and net incurred losses attributable to prior years for the twelve months ended December 31, 2021 was 92.4%, an increase of 2.8 points over the same period in 2020. The increase was driven by an increase in the claims and claim adjustment expense ratio due to higher non-catastrophe losses across all three regions, most notably U.S. personal auto and personal property. Partially offsetting this increase is a decrease in the underwriting expense ratio, primarily driven by earned premium growth due to the previously mentioned topline impacts.

Including the impact of catastrophes and net incurred losses attributable to prior years, the total combined ratio for the twelve months ended December 31, 2021 was 99.0%, an increase of 2.1 points over the same period in 2020. The increase is primarily driven by the previously mentioned increase in catastrophe losses due to an increase in severity of events, partially offset by greater prior year catastrophe and non-catastrophe reserve releases in the U.S. in 2021 versus 2020 and prior year non-catastrophe reserve releases in the West.

## GLOBAL RISK SOLUTIONS

***Overview – Global Risk Solutions***

Global Risk Solutions ("GRS") offers a wide array of property, casualty, specialty and reinsurance products and services distributed through brokers and independent agents globally. The segments for Global Risk Solutions are as follows:

- Liberty Specialty Markets ("LSM") – Includes most Global Risk Solutions business outside of North America along with global reinsurance.
- North America ("NA") – North America includes admitted and non-admitted property and casualty.
- Global Surety – A global leader providing surety guarantees to businesses ranging from multinational to local in most industry segments.
- Other Global Risk Solutions primarily consists of internal reinsurance programs, Ironshore international entities and a large global inland marine program.

Global Risk Solutions NWP by market segment was as follows:

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Liberty Specialty Markets | $1,743 | $1,344 | 29.7% | $6,729 | $5,119 | 31.5% |
| North America | 1,626 | 1,489 | 9.2 | 6,041 | 5,558 | 8.7 |
| Global Surety | 246 | 241 | 2.1 | 1,102 | 1,083 | 1.8 |
| Other Global Risk Solutions | 216 | 355 | (39.2) | 730 | 1,586 | (54.0) |
| Total NWP | $3,831 | $3,429 | 11.7% | $14,602 | $13,346 | 9.4% |
| Foreign exchange effect on growth | | | 0.0 | | | 1.4 |
| NWP growth excluding foreign exchange[1] | | | 11.7% | | | 8.0% |

1 Determined by assuming constant foreign exchange rates between periods.

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

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Specialty insurance[1] | $1,276 | $999 | 27.7% | $4,382 | $3,450 | 27.0% |
| Reinsurance | 544 | 445 | 22.2 | 2,604 | 2,205 | 18.1 |
| Casualty[2,3] | 599 | 577 | 3.8 | 2,206 | 1,977 | 11.6 |
| Commercial property[3] | 447 | 280 | 59.6 | 1,728 | 1,098 | 57.4 |
| Surety | 254 | 256 | (0.8) | 1,134 | 1,122 | 1.1 |
| Workers Compensation | 268 | 306 | (12.4) | 1,079 | 1,218 | (11.4) |
| Commercial automobile | 199 | 174 | 14.4 | 630 | 598 | 5.4 |
| Inland marine[4] | 148 | 142 | 4.2 | 574 | 563 | 2.0 |
| Other reinsurance | 65 | 202 | (67.8) | 140 | 876 | (84.0) |
| Commercial multiple-peril[3] | 31 | 48 | (35.4) | 125 | 239 | (47.7) |
| Total NWP | $3,831 | $3,429 | 11.7% | $14,602 | 13,346 | 9.4% |

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 shift between underwriting systems resulting in commercial multiple-peril policies converting to casualty and commercial property.
4 Includes handset protection coverage for lost or damaged wireless devices.

Fourth Quarter Results:

NWP for the three months ended December 31, 2021 was $3.831 billion, an increase of $402 million over the same period in 2020.

The increase was driven by:

- Renewal rate increases across most lines of business, totaling 11%;
- Higher new business premium;
- Increase in retention of six points driven by areas with improved underwriting

Partially offset by:

- Lower workers compensation premium due to competitive market conditions; and
- Increase in ceded reinsurance due to higher volume

Additionally, internal reinsurance changes in 2021 created offsetting differences amongst segments and lines.

Year-to-date Results:

NWP for the twelve months ended December 31, 2021 was $14.602 billion, an increase of $1.256 billion over the same period in 2020.

The increase was driven by:

- Renewal rate increases across most lines of business, totaling 12%;
- Higher new business premium;
- Increase in retention of five points driven by areas with improved underwriting;
- Higher reinstatement premium;
- Favorable foreign exchange due to weakening of the U.S. dollar

Partially offset by:

- Lower workers compensation premium due to competitive market conditions and return audit premiums versus positive audit premiums in the prior year; and
- Ceded reinsurance program changes resulting in higher cessions due to more coverage being purchased and higher volume

Additionally, internal reinsurance changes in 2021 created offsetting differences amongst segments and lines.

***Results of Operations – Global Risk Solutions***

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Revenues | $3,962 | $3,593 | 10.3% | $15,018 | $13,791 | 8.9% |
| PTOI before catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation | $516 | $397 | 30.0% | $2,037 | $1,418 | 43.7% |
| Catastrophes[1] | 14 | (73) | NM | (1,168) | (423) | NM |
| COVID-19[2] | - | (115) | (100.0) | - | (680) | (100.0) |
| Net incurred losses attributable to prior years[3] | (271) | (212) | 27.8 | (253) | (315) | (19.7) |
| Current accident year re-estimation[4] | 19 | - | NM | - | - | NM |
| Pre-tax operating income (loss) | $278 | ($3) | NM | $616 | $- | NM |

1 Catastrophes are defined as a natural catastrophe, civil unrest, 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 Includes estimated loss activity directly related to COVID-19 in 2020.

3 Net of earned premium and reinstatement premium attributable to prior years of $118 million and $271 million for the three and twelve months ended December 31, 2021, and $83 million and $301 million for the same periods in 2020.

4 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2021.

NM = Not Meaningful

Fourth Quarter Results:

Pre-tax operating income (loss) for the three months ended December 31, 2021 was $278 million versus ($3) million for the same period in 2020. Pre-tax operating income before catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation for the three months ended December 31, 2021 was $516 million, an increase of $119 million over the same period in 2020. The increase reflects an improved current accident year loss ratio due to rate in excess of loss trend, favorable current year loss activity, and profit margin on higher earned premium. The increase was partially offset by higher expenses driven by investments in technology and operations to support profitable growth, increases in employee related costs and unfavorable current year large losses due to activity in Q4 2021 versus adjustments in Q4 2020 on losses that occurred earlier in 2020. Including the impact of catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation, the change in pre-tax operating income (loss) was due to the drivers mentioned above, favorable catastrophe losses driven by releases in Q4 2021 versus strengthening in Q4 2020 on events that occurred earlier in each respective year and COVID-19 related losses in Q4 2020. Additionally, the current accident year loss ratio was reset to reflect more favorable loss expectations in Specialty lines, primarily due to rate in excess of loss trend. These increases were partially offset by higher unfavorable development on net incurred losses attributable to prior years.

Revenues for the three months ended December 31, 2021 were $3.962 billion, an increase of $369 million over the same period in 2020. The increase primarily reflects premium earned associated with the changes in NWP previously discussed.

Claims, benefits and expenses for the three months ended December 31, 2021 were $3.684 billion, an increase of $85 million over the same period in 2020. The increase reflects attritional losses due to growth, higher unfavorable development on net incurred losses attributable to prior years, higher expenses driven by investments in technology and operations to support profitable growth and increases in employee related costs and higher current accident year large loss activity. These increases were partially offset by favorable current year catastrophe losses, COVID-19 related losses in Q4 2020, and favorable current year loss activity.

Year-to-date Results:

Pre-tax operating income for the twelve months ended December 31, 2021 was $616 million, versus $0 for the same period in 2020. Pre-tax operating income before catastrophes, COVID-19, and net incurred losses attributable to prior year for the twelve months ended December 31, 2021 was $2.037 billion, an increase of $619 million over the same period in 2020. The increase reflects an improved current accident year loss ratio due to rate in excess of loss trend, favorable current year loss activity, favorable foreign exchange and profit margin on higher earned premium partially offset by unfavorable current accident year large losses and higher expenses driven by investments in technology and operations to support profitable growth and increases in employee related costs. Including the impact of catastrophes, COVID-19 and net incurred losses attributable to prior years, the change in pre-tax operating income was due to the drivers mentioned above, COVID-19 related losses in 2020 and lower unfavorable development on incurred losses attributable to prior years, partially offset by higher catastrophe losses driven by the winter ice storm events, Hurricane Ida and the Germany Floods.

Revenues for the twelve months ended December 31, 2021 were $15.018 billion, an increase of $1.227 billion over the same period in 2020. The increase primarily reflects premium earned associated with the changes in NWP previously discussed, partially offset by lower net investment income.

Claims, benefits and expenses for the twelve months ended December 31, 2021 were $14.397 billion, an increase of $594 million over the same period in 2020. The increase reflects attritional losses due to growth, unfavorable current accident year large losses, higher current year catastrophe losses and unfavorable expenses driven by investments in technology and operations to support profitable growth and increases in employee related costs. These increases were partially offset by the impact of COVID-19 related losses in 2020, favorable current year loss activity and lower unfavorable development on incurred losses attributable to prior years.

| | **Three Months Ended December 31,** | | | **Twelve Months Ended December 31,** | | |
|---|---|---|---|---|---|---|
| **GLOBAL RISK SOLUTIONS** | **2021** | **2020** | **Change (Points)** | **2021** | **2020** | **Change (Points)** |
| **Combined ratio before catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation** | | | | | | |
| Claims and claim adjustment expense ratio | 61.3% | 64.7% | (3.4) | 61.9% | 65.2% | (3.3) |
| Underwriting expense ratio | 29.9 | 29.1 | 0.8 | 29.7 | 30.1 | (0.4) |
| Dividend ratio | 0.1 | 0.1 | - | 0.1 | 0.1 | - |
| Subtotal | 91.3 | 93.9 | (2.6) | 91.7 | 95.4 | (3.7) |
| Catastrophes[1] | (0.4) | 2.3 | (2.7) | 8.7 | 3.5 | 5.2 |
| COVID-19[2] | - | 3.6 | (3.6) | - | 5.6 | (5.6) |
| Net incurred losses attributable to prior years[3] | 7.8 | 6.5 | 1.3 | 1.8 | 2.4 | (0.6) |
| Current accident year re-estimation[4] | (0.5) | - | (0.5) | - | - | - |
| Total combined ratio | 98.2% | 106.3% | (8.1) | 102.2% | 106.9% | (4.7) |

1 Catastrophes are defined as a natural catastrophe, civil unrest, 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 Includes estimated loss activity directly related to COVID-19 in 2020.
3 Net of earned premium and reinstatement premium attributable to prior years.
4 Re-estimation of the current accident year loss reserves for the nine months ended September 30, 2021.

Fourth Quarter Results:

The Global Risk Solutions combined ratio before catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation for the three months ended December 31, 2021 was 91.3%, a decrease of 2.6 points from the same period in 2020. The decrease in the claims and claim adjustment expense ratio was primarily driven by an improved current accident year loss ratio due to rate in excess of loss trend and favorable current year loss activity, partially offset by unfavorable current year large losses due to activity in Q4 2021 versus adjustments in Q4 2020 on losses that occurred earlier in 2020. The increase in the underwriting expense ratio was primarily driven by investments in technology and operations to support profitable growth, increases in employee related costs and foreign exchange partially offset by higher earned premium.

Including the impact of catastrophes, COVID-19, net incurred losses attributable to prior years and current accident year re-estimation, the total combined ratio for the three months ended December 31, 2021 was 98.2%, a decrease of 8.1 points from the same period in 2020. The change was driven by the decreases to the combined ratio mentioned above, favorable catastrophe losses driven by releases in Q4 2021 versus strengthening in Q4 2020 on events that occurred earlier in each respective year and COVID-19 related losses in Q4 2020. Additionally, the current accident year loss ratio was reset to reflect more favorable loss expectations in Specialty lines primarily due to rate in excess of loss trend. These increases were partially offset by higher unfavorable development on net incurred losses attributable to prior years.

Year-to-date Results:

The Global Risk Solutions combined ratio before catastrophes, COVID-19 and net incurred losses attributable to prior years for the twelve months ended December 31, 2021 was 91.7%, a decrease of 3.7 points from the same period in 2020. The decrease in the claims and claim adjustment expense ratio was primarily driven by an improved current accident year loss ratio due to rate in excess of loss trend and favorable current year loss activity partially offset by higher current year large losses. The decrease in the underwriting expense ratio was primarily driven by higher earned premium partially offset by investments in technology and operations to support profitable growth, increases in employee related costs and foreign exchange.

Including the impact of catastrophes, COVID-19 and net incurred losses attributable to prior years the total combined ratio for the twelve months ended December 31, 2021 was 102.2%, a decrease of 4.7 points from the same period in 2020. The change was driven by the decreases to the combined ratio mentioned above, COVID-19 related losses in 2020 and lower unfavorable development on incurred losses attributable to prior years, partially offset by higher catastrophe losses driven by the winter ice storm events, Hurricane Ida and the Germany Floods.

## CORPORATE AND OTHER

***Overview – Corporate and Other***

Corporate and Other includes the following significant items:

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

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

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

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

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

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

- Interest expense on the Company's outstanding debt.

- Certain risks of its businesses that the Company reinsures as part of its risk management program and pre-2019 and post-2020 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 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. On July 19, 2020, the Company entered into an agreement with an investment firm, whereby both parties contributed various energy assets into a new joint venture vehicle. The Company contributed its entire interest in Liberty Energy, LLC to the joint venture in exchange for a minority interest in the new entity. A $231 million impairment and subsequent gain of $26 million upon finalizing the sale were reflected in the Consolidated Statements of Income. On June 8, 2021, it was announced that Independence Energy ("ICO") was entering into a reverse takeover of Contango Oil and Gas, a public company, through an "Up-C" structure, whereby a new publicly traded company was established (Crescent Energy, ticker CRGY) with underlying ownership split 76% to ICO and its existing shareholders, and 24% to Contango's shareholders. The merger transaction closed on December 9, 2021 at which point the Company exchanged its 31% ownership in ICO, for a 23.5% ownership in a new operating entity, Crescent Energy OpCo LLC, whose shares are exchangeable 1-for-1 with the public company. Given the change in the Company's investment to a new entity, fair value option accounting was elected and the stock price of CRGY has been volatile since trading opened, resulting in a change in fair value of ($306) million booked for Q4. This transaction furthers the evolution of our energy holdings from a direct investing model to an experienced operator that provides product expertise and geographic diversification.

- The results of LLAC are 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:

| | Three Months Ended December 31, | | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **2021** | **2020** | **Change** | **2021** | **2020** | **Change** |
| Reinsurance, net | ($17) | ($9) | 88.9% | ($222) | ($130) | 70.8% |
| Workers compensation[1] | (25) | - | NM | (18) | 10 | NM |
| Other | 2 | 2 | - | (2) | (3) | (33.3) |
| Total NWP | ($40) | ($7) | NM | ($242) | ($123) | 96.7% |

1 Booked as billed adjustment.
NM = Not Meaningful

Fourth Quarter Results:

NWP for the three months ended December 31, 2021 was ($40) million, a decrease of $33 million from the same period in 2020. The decrease is driven by the booked as billed adjustment and the reinsurance line of business driven by shifting the purchase of the homeowners quota share reinsurance treaty to Corporate.

Year-to-date Results:

NWP for the twelve months ended December 31, 2021 was ($242) million, a decrease of $119 million from the same period in 2020. The decrease reflects the reinsurance line of business driven by external property placements, including shifting the purchase of the homeowners quota share reinsurance treaty to Corporate, and reinstatement premium as a result of the losses recognized on Hurricane Ida.

***Results of Operations – Corporate and Other***

| $ in Millions | Three Months Ended December 31, 2021 | 2020 | Change | Twelve Months Ended December 31, 2021 | 2020 | Change |
|---|---|---|---|---|---|---|
| Revenues | $569 | $824 | (30.9%) | $3,174 | $1,534 | 106.9% |
| Pre-tax operating loss before catastrophes, net incurred losses attributable to prior years, and partnerships, LLC and other equity method loss | ($323) | ($247) | 30.8 | ($1,027) | ($738) | 39.2 |
| Catastrophes[1] | 219 | - | NM | 450 | - | NM |
| Net incurred losses attributable to prior years: | | | | | | |
| -Asbestos and environmental[2] | (151) | (211) | (28.4) | (150) | (209) | (28.2) |
| -All other[2,3] | (74) | (387) | (80.9) | (131) | (405) | (67.7) |
| Pre-tax operating loss before partnerships, LLC and other equity method loss | (329) | (845) | (61.1) | (858) | (1,352) | (36.5) |
| Partnerships, LLC and other equity method income [4] | 916 | 494 | 85.4 | 3,708 | 711 | NM |
| Pre-tax operating income (loss) | $587 | ($351) | NM | $2,850 | ($641) | NM |

1 Catastrophes are defined as a natural catastrophe, civil unrest, 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, which is described further in “Reinsurance”.

3 Net of earned premium attributable to prior years of zero for the three and twelve months ended December 31, 2021 and 2020.

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.

NM = Not Meaningful

Fourth Quarter Results:

Pre-tax operating income (loss) for the three months ended December 31, 2021 was $587 million, versus ($351) million for the same period in 2020. Pre-tax operating loss before catastrophes, net incurred losses attributable to prior years, and partnerships, LLC and other equity method income was $323 million, an increase of $76 million over the same period in 2020. The increase in loss was driven by increased employee related costs and external non-CAT placements driven by the homeowners quota share reinsurance treaty moving to Corporate. Including the impact of catastrophes, net incurred losses attributable to prior years, and partnerships, LLC and other equity method income, the increase in pre-tax operating income is primarily driven by higher partnership, LLC and other equity method income due to private capital and energy investments, increased reinsurance recoveries related to increased catastrophe losses and lower incurred losses attributable to prior years, specifically due to internally assumed casualty lines and strengthening on casualty run-off reserves in 2020 that did not recur to the same extent in 2021.

Revenues for the three months ended December 31, 2021 were $569 million, a decrease of $255 million from the same period in 2020. The major components of revenues are net premium earned, net investment income (including LP, LLC and other equity method investments), net realized gains, and fee and other revenues.

Net premium earned for the three months ended December 31, 2021 was ($61) million, a decrease of $20 million from the same period in 2020. The decrease primarily reflects the reinsurance earnings impact of various property catastrophe placements, reinstatement premium and shifting the purchase of the homeowners quota share reinsurance treaty to Corporate.

Net investment income for the three months ended December 31, 2021 was $834 million, an increase of $367 million over the same period in 2020. The increase reflects favorable valuations across the LP, LLC, and other equity method investments as a result of improving market conditions, primarily driven by private capital and energy investments.

Net realized (losses) gains for the three months ended December 31, 2021 were ($335) million, versus $367 million for the same period in 2020. The net realized losses in the current period were primarily driven by $463 million net losses on natural resource investments, partially offset by $60 million net change in equity unrealized gains and $49 million net gains on equity sales. The prior period was impacted by $166 million net gains on fixed maturity sales, $133 million net change in equity unrealized gains, $41 million net gains on derivatives, and $30 million net change in unrealized on natural resource investments.

Fee and other revenues for the three months ended December 31, 2021 were $131 million, an increase of $100 million over the same period in 2020. The increase was primarily driven by higher natural resource revenues.

Claims, benefits and expenses for the three months ended December 31, 2021 were $317 million, a decrease of $491 million from the same period in 2020. The decrease primarily reflects increased reinsurance recoveries related to increased catastrophe losses and lower incurred losses attributable to prior years, as mentioned previously. These were partially offset by higher employee related costs.

Year-to-date Results:

Pre-tax operating income (loss) for the twelve months ended December 31, 2021 was $2.850 billion, versus ($641) million for the same period in 2020. Pre-tax operating loss before catastrophes, net incurred losses attributable to prior years, and partnerships, LLC and other equity method income was $1.027 billion, an increase of $289 million over the same period in 2020. The increase in loss was driven by increased employee related costs, increased reinsurance costs and shifting the purchase of the homeowners quota share reinsurance treaty to Corporate, partially offset by higher net investment income excluding partnerships, LLC and other equity method income. Including the impact of catastrophes, net incurred losses attributable to prior years, and partnerships, LLC and other equity method income, the change in pre-tax operating income (loss) is primarily driven by higher partnership, LLC and other equity method income, increased reinsurance recoveries related to increased catastrophe losses, and lower incurred losses attributable to prior years, specifically due to internally assumed casualty lines in 2020 that did not recur to the same extent in 2021 and increased reinsurance recoveries related to prior year catastrophes.

Revenues for the twelve months ended December 31, 2021 were $3.174 billion, an increase of $1.640 billion over the same period in 2020. The major components of revenues are net premium earned, net investment income (including LP, LLC and other equity method investments), net realized gains, and fee and other revenues.

Net premium earned for the twelve months ended December 31, 2021 was ($302) million, a decrease of $196 million from the same period in 2020. The decrease primarily reflects shifting the purchase of the homeowners quota share reinsurance treaty to Corporate, the reinsurance earnings impact of property catastrophe placements and reinstatement premium.

Net investment income for the twelve months ended December 31, 2021 was $3.551 billion, an increase of $2.911 billion over the same period in 2020. The increase reflects favorable valuations and distributions across the LP, LLC, and other equity method investments as a result of improving market conditions, primarily driven by private capital investments.

Net realized (losses) gains for the twelve months ended December 31, 2021 were ($368) million, versus $796 million for the same period in 2020. The net realized losses in the current period were primarily driven by $610 million of impairments on natural resource investments and $264 million loss on natural resource investments. These were partially offset by $291 million net change in equity unrealized gains and $275 million of net gains on fixed maturity sales. The prior period was impacted by $1.039 billion of net gains on fixed maturity sales and a $108 million net change in equity unrealized gains, partially offset by a $205 million net loss on the Liberty Energy, LLC transaction and a $70 million loss on the sale of metals and mining investments.

Fee and other revenues for the twelve months ended December 31, 2021 were $293 million, an increase of $89 million over the same period in 2020. The increase was primarily driven by higher natural resource revenues.

Claims, benefits and expenses for the twelve months ended December 31, 2021 were $692 million, a decrease of $687 million from the same period in 2020. The decrease primarily reflects increased reinsurance recoveries related to increased catastrophe losses, lower incurred losses attributable to prior years, as previously mentioned and lower natural resource expenses. These were partially offset by increased reinsurance costs, shifting the purchase of homeowners quota share reinsurance treaty to Corporate and increased employee related costs.

## INVESTMENTS

### *General*

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

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

### *Invested Assets (including cash and cash equivalents)*

The following table summarizes the Company's invested assets by asset category as of December 31, 2021 and December 31, 2020:

| **Invested Assets by Type** | **As of December 31, 2021** | | **As of December 31, 2020** | |
|---|---|---|---|---|
| **$ in Millions** | **Carrying Value** | **% of Total** | **Carrying Value** | **% of Total** |
| Fixed maturities, available for sale, at fair value | $73,106 | 70.8% | $71,301 | 75.9% |
| Equity securities, at fair value | 3,034 | 2.9 | 2,572 | 2.7 |
| LP, LLC and other equity method investments | 11,134 | 10.8 | 8,664 | 9.2 |
| Mortgage loans | 2,659 | 2.6 | 2,219 | 2.4 |
| Short-term investments | 218 | 0.2 | 276 | 0.3 |
| Other investments | 2,267 | 2.3 | 723 | 0.8 |
| Cash and cash equivalents | 10,777 | 10.4 | 8,224 | 8.7 |
| Total invested assets | $103,195 | 100.0% | $93,979 | 100.0% |

Total invested assets as of December 31, 2021 were $103.195 billion, an increase of $9.216 billion or 9.8% over December 31, 2020. The increase was primarily related to an increase in cash and cash equivalents, LP, LLC and other equity method investments, and fixed maturities.

Fixed maturities as of December 31, 2021 were $73.106 billion, an increase of $1.805 billion or 2.5% over December 31, 2020. The increase was primarily related to additional investments in U.S. treasuries and corporate bonds, partially offset by unfavorable impact of the increase in treasury rates. As of December 31, 2021, included in fixed maturities are commitments to purchase various residential mortgage-backed securities at a cost and fair value of $1.021 billion.

Equity securities as of December 31, 2021 were $3.034 billion ($3.023 billion common stock and $11 million preferred stock) versus $2.572 billion as of December 31, 2020 ($2.562 billion common stock and $10 million preferred stock), an increase of $462 million or 18.0% over December 31, 2020. Of the $3.023 billion of common stock at December 31, 2021, $805 million relates to securities associated with non-guaranteed unit linked life insurance where the policyholder bears the investment risk.

The following table summarizes the Company's LP, LLC and other equity method investments as of December 31, 2021 and December 31, 2020:

| **LP, LLC and other equity method investments** | **As of December 31, 2021** | | **As of December 31, 2020** | |
|---|---|---|---|---|
| **$ in Millions** | **Carrying Value** | **% of Total** | **Carrying Value** | **% of Total** |
| Traditional private equity | $5,535 | 49.8% | $3,764 | 43.4% |
| Real Estate | 2,065 | 18.5 | 1,494 | 17.2 |
| Private Credit | 1,237 | 11.1 | 805 | 9.3 |
| Natural resources – Energy | 794 | 7.1 | 1,233 | 14.2 |
| Natural resources – Other[1] | 873 | 7.8 | 793 | 9.2 |
| Other | 630 | 5.7 | 575 | 6.7 |
| Total LP, LLC and other equity method investments[2] | $11,134 | 100.0% | $8,664 | 100.0% |

1 Included in Natural Resources – Other is $9 million and $112 million of investments in metals & mining as of December 31, 2021 and December 31, 2020 respectively, $132 million and $135 million of investments in agriculture and timber as of December 31, 2021 and December 31, 2020 respectively, and $732 million and $546 million of investments in energy transition and infrastructure as of December 31, 2021 and December 31, 2020, respectively.

2 Included in total LP, LLC, and other equity method investments are $614 million and $147 million of limited partnership investments where the Company has elected fair value option of as of December 31, 2021 and 2020, respectively.

Mortgage loans as of December 31, 2021 were $2.659 billion (net of $2 million of loan loss reserves or 0.1% of the outstanding loan portfolio), an increase of $440 million or 19.8% over December 31, 2020. The increase is primarily driven by $1.479 billion in funding and a $3 million decrease to the loan loss reserve partially offset by $1.042 billion in principal reductions. The entire mortgage loan portfolio is U.S.-based. The number of loans in the portfolio decreased from 3,717 at December 31, 2020 to 3,285 at December 31, 2021.

Cash and cash equivalents as of December 31, 2021 were $10.777 billion, an increase of $2.553 billion or 31.0% over December 31, 2020. The increase primarily reflects an increase in cash from operating and financing activities.

The following tables summarize the Company’s available for sale portfolio by security type as of December 31, 2021 and December 31, 2020:

| | As of December 31, 2021 | | | |
|---|---|---|---|---|
| $ in Millions | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value |
| U.S. government and agency securities | $11,421 | $78 | ($43) | $11,456 |
| Residential MBS [1] | 5,287 | 100 | (19) | 5,368 |
| Commercial MBS | 4,045 | 190 | (19) | 4,216 |
| Other MBS and ABS [2] | 5,535 | 49 | (33) | 5,551 |
| U.S. state and municipal | 8,255 | 537 | (12) | 8,780 |
| Corporate and other | 31,986 | 847 | (197) | 32,636 |
| Foreign government securities | 5,051 | 132 | (84) | 5,099 |
| Total securities available for sale | $71,580 | $1,933 | ($407) | $73,106 |

1 Mortgage-backed securities (“MBS”)
2 Asset-backed securities (“ABS”)

| | As of December 31, 2020 | | | |
|---|---|---|---|---|
| $ in Millions | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value |
| U.S. government and agency securities | $7,056 | $159 | ($6) | $7,209 |
| Residential MBS | 5,755 | 206 | (2) | 5,959 |
| Commercial MBS | 4,407 | 328 | (8) | 4,727 |
| Other MBS and ABS | 5,229 | 118 | (35) | 5,312 |
| U.S. state and municipal | 8,549 | 740 | (2) | 9,287 |
| Corporate and other | 31,876 | 1,957 | (55) | 33,778 |
| Foreign government securities | 4,742 | 290 | (3) | 5,029 |
| Total securities available for sale | $67,614 | $3,798 | ($111) | $71,301 |

The following table summarizes the Company's mortgage and asset-backed fixed maturity portfolio by credit quality as of December 31, 2021:

| **Mortgage & Asset-Backed Fixed Maturities by Credit Quality**[1] | **As of December 31, 2021** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **$ in Millions** | **AAA** | **AA** | **A** | **BBB** | **BB** | **B or Lower** | **Total** | **% of Total** |
| Residential MBS | $5,358 | $- | $7 | $- | $- | $3 | $5,368 | 35.5% |
| Commercial MBS | 3,672 | 119 | 251 | 75 | 99 | - | 4,216 | 27.8% |
| Other MBS and ABS | 2,689 | 835 | 950 | 706 | 300 | 71 | 5,551 | 36.7% |
| Total | $11,719 | $954 | $1,208 | $781 | $399 | $74 | $15,135 | 100.0% |
| % of Total | 77.4% | 6.3% | 8.0% | 5.2% | 2.6% | 0.5% | 100.0% | |

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

Approximately 57.5% 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 77.4% of the holdings are rated AAA. Included in the commercial mortgage-backed securities at December 31, 2021, were $3.210 billion in Agency CMBS and $1.006 billion Non-agency CMBS. Included in the Other MBS and ABS at December 31, 2021 were $391 million AAA rated SBA Loans. The commercial mortgage-backed securities portfolio is well diversified and of high quality with approximately 87.1% 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 December 31, 2021 and December 31, 2020:

| **U.S. State and Municipal by Credit Quality**[1] | **As of December 31, 2021** | | | **As of December 31, 2020** | | |
|---|---|---|---|---|---|---|
| **$ in Millions** | **Fair Value** | **% of Total** | **Average Credit Rating** | **Fair Value** | **% of Total** | **Average Credit Rating** |
| State general obligation | $1,969 | 22.4% | AA | $2,168 | 23.3% | A |
| Local general obligation | 1,735 | 19.8 | AA | 1,738 | 18.7 | AA |
| Revenue | 4,971 | 56.6 | A | 5,271 | 56.8 | AA |
| Pre-refunded | 105 | 1.2 | AAA | 110 | 1.2 | AAA |
| Total U.S. state and municipal | $8,780 | 100.0% | AA | $9,287 | 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 December 31, 2021 and December 31, 2020 were $105 million and $110 million, respectively, of pre-refunded bonds, which are bonds for which states or municipalities have established irrevocable trusts, which were created to satisfy their responsibility for payments of principal and interest.

The following table summarizes the Company's allocation of fixed maturities by credit quality as of December 31, 2021 and December 31, 2020:

| **Fixed Maturities by Credit Quality[1]** | **As of December 31, 2021** | | **As of December 31, 2020** | |
|---|---|---|---|---|
| **$ in Millions** | **Fair Value** | **% of Total** | **Fair Value** | **% of Total** |
| AAA | $25,739 | 35.2% | $22,756 | 32.0% |
| AA+, AA, AA- | 9,168 | 12.5 | 10,006 | 14.0 |
| A+, A, A- | 16,754 | 22.9 | 15,764 | 22.1 |
| BBB+, BBB, BBB- | 15,992 | 21.9 | 17,127 | 24.0 |
| Total investment grade | 67,653 | 92.5 | 65,653 | 92.1 |
| BB+, BB, BB- | 2,869 | 3.9 | 3,078 | 4.3 |
| B+, B, B- | 2,216 | 3.0 | 2,211 | 3.1 |
| CCC or lower | 237 | 0.4 | 315 | 0.4 |
| Unrated[2] | 131 | 0.2 | 44 | 0.1 |
| Total below-investment grade | 5,453 | 7.5 | 5,648 | 7.9 |
| Total fixed maturities | $73,106 | 100.0% | $71,301 | 100.0% |

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

The Company's holdings of below investment grade securities primarily consist of an actively managed diversified portfolio of high yield securities and leveraged loans within the domestic insurance portfolios and investments in emerging market sovereign and corporate debt primarily in support of the Company's international insurance operations. Overall, the average credit quality rating stands at A+ as of December 31, 2021.

The following table summarizes available for sale fixed maturity securities by contractual maturity at December 31, 2021 and December 31, 2020. 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 December 31, 2021** | | **As of December 31, 2020** | |
|---|---|---|---|---|
| **$ in Millions** | **Fair Value** | **% of Total** | **Fair Value** | **% of Total** |
| One year or less | $3,888 | 5.3% | $2,720 | 3.8% |
| Over one year through five years | 25,658 | 35.1 | 24,732 | 34.7 |
| Over five years through ten years | 19,803 | 27.1 | 18,790 | 26.4 |
| Over ten years | 8,622 | 11.8 | 9,061 | 12.7 |
| MBS and ABS | 15,135 | 20.7 | 15,998 | 22.4 |
| Total fixed maturities | $73,106 | 100.0% | $71,301 | 100.0% |

During 2021, after taking into consideration changes in investment opportunities and its view of the current and prospective business and economic environment, the Company has made only minor adjustments to the average duration of its investment portfolio. The average duration of the investment portfolio as of December 31, 2021 was 4.3 years.

The following tables summarize the Company's gross unrealized losses and fair value of fixed income securities by the length of time that individual securities have been in a continuous unrealized loss position as of December 31, 2021 and December 31, 2020 that are not deemed to be other-than-temporarily impaired:

| | As of December 31, 2021 | | | |
|---|---|---|---|---|
| **$ 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 | ($32) | $6,373 | ($11) | $326 |
| Residential MBS | (16) | 1,755 | (3) | 126 |
| Commercial MBS | (5) | 431 | (14) | 152 |
| Other MBS and ABS | (20) | 2,993 | (13) | 95 |
| U.S. state and municipal | (11) | 916 | (1) | 29 |
| Corporate and other | (143) | 9,264 | (54) | 1,111 |
| Foreign government securities | (55) | 1,978 | (29) | 453 |
| Total securities available for sale | ($282) | $23,710 | ($125) | $2,292 |

| | As of December 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 | ($6) | $797 | $- | $- |
| Residential MBS | (2) | 283 | - | 3 |
| Commercial MBS | (5) | 329 | (3) | 17 |
| Other MBS and ABS | (26) | 850 | (9) | 328 |
| U.S. state and municipal | (2) | 92 | - | - |
| Corporate and other | (31) | 1,278 | (24) | 282 |
| Foreign government securities | (3) | 300 | - | 4 |
| Total securities available for sale | ($75) | $3,929 | ($36) | $634 |

Unrealized losses for fixed maturity securities increased from $111 million as of December 31, 2020 to $407 million as of December 31, 2021. 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 December 31, 2021 are temporary.

The following tables summarize the Company's issuer and sector exposure[1] as of December 31, 2021:

| **Top 10 Issuers** | **As of December 31, 2021** | | | | |
|---|---|---|---|---|---|
| **$ in Millions** | **Fixed Maturity** | **Equity** | **Short-Term** | **Total Exposure** | **% of Invested Assets** |
| Bank of America Corp | $697 | $- | $- | $697 | 0.68% |
| JP Morgan Chase & Co | 670 | - | - | 670 | 0.65 |
| Government of United Kingdom | 641 | - | - | 641 | 0.61 |
| Morgan Stanley | 620 | - | - | 620 | 0.60 |
| Goldman Sachs Group Inc | 618 | - | - | 618 | 0.60 |
| Citigroup Inc | 584 | - | - | 584 | 0.57 |
| Banco Santander | 493 | - | - | 493 | 0.48 |
| Government of Canada | 453 | - | - | 453 | 0.44 |
| Government of Brazil | 444 | - | - | 444 | 0.43 |
| New York State Dormitory Authority | 441 | - | - | 441 | 0.43 |
| Total | $5,661 | $- | $- | $5,661 | 5.49% |

| **Top 10 Sectors** | **As of December 31, 2021** | | | | |
|---|---|---|---|---|---|
| **$ in Millions** | **Fixed Maturity** | **Equity** | **Short-Term** | **Total Exposure** | **% of Invested Assets** |
| Banking | $8,508 | $2 | $180 | $8,690 | 8.42% |
| Foreign Government | 3,844 | - | 2 | 3,846 | 3.73 |
| REITS | 983 | 2,161 | 2 | 3,146 | 3.05 |
| Technology | 2,061 | 293 | - | 2,354 | 2.28 |
| US Municipal - State & US Territory | 2,015 | - | - | 2,015 | 1.96 |
| Electric Utility | 1,537 | 396 | - | 1,933 | 1.87 |
| US Municipal - Local Govt | 1,718 | - | - | 1,718 | 1.66 |
| Insurance | 1,407 | 80 | 1 | 1,488 | 1.44 |
| Healthcare | 1,120 | 238 | 1 | 1,359 | 1.32 |
| Independent Energy | 445 | 796 | - | 1,241 | 1.20 |
| Total | $23,638 | $3,966 | $186 | $27,790 | 26.93% |

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

As of December 31, 2021, investments in the energy sector accounted for $3.207 billion or 3.1% of total invested assets. The energy sector is comprised of investments in the following sub-sectors: independent energy, integrated energy, midstream, oil field services, and refining (*classification per Bloomberg Barclays Industry Groups*). Energy investments consist of investment grade bonds of $1.942 billion, bonds that were rated below investment grade of $467 million, publicly traded equity securities of $3 million, and natural resources partnerships and other equity method investments of $795 million. Agriculture and timber investments consist of natural resource partnerships of $132 million. In addition, the Company has direct investments in agriculture and timber of $188 million and oil and gas wells of $4 million which are included in other assets on the Consolidated Balance Sheets.

The following table summarizes the Company's unfunded commitments as of December 31, 2021 and December 31, 2020:

| **Unfunded Commitments** | **As of December 31, 2021** | | **As of December 31, 2020** | |
|---|---|---|---|---|
| **$ in Millions** | **Total** | **% of Total** | **Total** | **% of Total** |
| Traditional private equity | $1,614 | 23.3% | $1,394 | 29.2% |
| Real Estate | 2,499 | 36.1 | 1,267 | 26.5 |
| Private Credit | 1,983 | 28.7 | 1,499 | 31.4 |
| Natural resources – Energy | 38 | 0.6 | 67 | 1.4 |
| Natural resources – Other[1] | 721 | 10.4 | 374 | 7.8 |
| Other | 62 | 0.9 | 176 | 3.7 |
| Total unfunded commitments | $6,917 | 100.0% | $4,777 | 100.0% |

1 Includes energy, transition and infrastructure, and agriculture and timber commitments.

Unfunded commitments as of December 31, 2021 were $6.917 billion, an increase of $2.140 billion over December 31, 2020. The increase is primarily driven by new commitments net of contributions related to real estate and private credit investments. The unfunded energy investment commitments at December 31, 2021 and December 31, 2020 of $38 million and $67 million, respectively, related to energy partnerships.

## LIQUIDITY AND CAPITAL RESOURCES

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

- LMIC, Peerless Insurance Company ("PIC"), Liberty Mutual Fire Insurance Company ("LMFIC") 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 December 31, 2021, the outstanding Federal Home Loan Bank borrowings are fully collateralized. Ironshore Indemnity Insurance ("III") and Ironshore Specialty Insurance Company ("ISIC") initiated cancellation of their memberships on February 24th and 25th, 2020, respectively.

Net cash flows are generally invested in marketable securities while keeping a certain amount in cash and short-term investments to meet unpredictable cash obligations. The Company monitors the duration of these investments, and purchases and sales are executed with the objective of having adequate cash available to satisfy its maturing liabilities. As the Company's investment strategy focuses on overall asset and liability durations, and not specific cash flows, asset sales may be required to satisfy obligations or rebalance asset portfolios. The Company's invested assets as of December 31, 2021 (including cash and cash equivalents) totaled $103.195 billion.

Debt outstanding as of December 31, 2021 and December 31, 2020 was as follows:

Short-term debt:

| **$ in Millions** | **As of December 31, 2021** | **As of December 31, 2020** |
|---|---|---|
| Short-term debt[1] | $473 | $330 |

1 Short-term debt is the current maturity of the 4.95% Notes, due May 1, 2022 and the 5.00% Notes, due June 1, 2021, respectively.

Long-term debt:

| $ in Millions | As of December 31, 2021 | As of December 31, 2020 |
|---|---|---|
| 4.95% Notes, due 2022[1] | $ - | $473 |
| 4.25% Notes, due 2023 | 547 | 547 |
| 1.75% €500 Million Notes, due 2024 | 568 | 612 |
| 8.50% Surplus notes, due 2025 | 140 | 140 |
| 2.75% €750 Million Notes, due 2026 | 853 | 917 |
| 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 | 124 | 124 |
| 6.50% Notes, due 2035 | 271 | 271 |
| 7.50% Notes, due 2036 | 19 | 19 |
| 6.50% Notes, due 2042 | 250 | 250 |
| 4.85% Notes, due 2044 | 564 | 564 |
| 4.50% Notes, due 2049 | 232 | 232 |
| 3.951% Notes, due 2050 | 1,248 | 1,248 |
| 4.125% Junior Subordinated notes, due 2051[2] | 500 | - |
| 3.625% €500 Million Junior Subordinated notes, due 2059[3] | 568 | 612 |
| 3.95% Notes, due 2060 | 746 | 746 |
| 4.30% Junior Subordinated notes, due 2061[4] | 800 | - |
| 7.80% Junior Subordinated notes, due 2087[5] | 437 | 437 |
| 10.75% Junior Subordinated notes, due 2088[6] | 35 | 35 |
| 7.697% Surplus notes, due 2097 | 260 | 260 |
| Subtotal | 9,692 | 9,017 |
| Unamortized discount | (453) | (472) |
| Long-term debt excluding unamortized debt issuance costs | 9,239 | 8,545 |
| Unamortized debt issuance costs | (58) | (48) |
| Total long-term debt | $9,181 | $8,497 |

1 Short-term debt is the current maturity of the 4.95% Notes, due May 1, 2022 and the 5.00% Notes, due June 1, 2021, respectively.

2 The par value call date is three months prior to and on December 15, 2026, after which the notes are callable at par during the three-month period prior to and on each succeeding interest reset date.

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

4 The par value call date is February 1, 2026 after which the notes are callable at par on each subsequent interest payment date.

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

6 The par value call date and final fixed rate interest payment date is June 15, 2038, subject to certain requirements.

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

***Debt Transactions***

On August 16, 2021, LMGI issued $500 million of Series F Junior Subordinated Notes, due 2051 (the "Series F Notes"). Interest is payable semi-annually at a fixed rate of 4.125%. The Series F Notes may be redeemed in whole or in part three months prior to and on December 15, 2026, after which the notes may be redeemed during the three-month period prior to and on each succeeding interest reset date. The interest reset dates are on each five-year anniversary of December 15, 2021 until December 15, 2051.

On June 1, 2021, $330 million of LMGI 5.00% Notes were paid at maturity.

On February 1, 2021, LMGI issued $800 million of Series E Junior Subordinated Notes, due 2061 (the "Series E Notes"). Interest is payable semi-annually at a fixed rate of 4.30%. The Series E Notes may be redeemed in whole or in part on February 1, 2026, after which the notes may be redeemed on any interest payment date thereafter until February 1, 2061.

On May 7, 2020, LMGI issued $500 million of 2060 Senior Notes and LMGI exchanged $246 million par value of 2060 Senior Notes for $29 million of its 7.00% Senior Notes due 2034, $29 million of its 6.50% Senior Notes due 2035, $20 million of its 6.50% Senior Notes due 2042, $50 million of its 4.85% Senior Notes due 2044 and $118 million of its 4.50% Senior Notes due 2049. Interest is payable semi-annually at a fixed rate of 3.95%. The exchanged notes are fully fungible with the 2060 Notes. The 2060 Notes mature on May 15, 2060. LMGI utilized a portion of the cash proceeds received from the issuance of the 2060 Notes for the retirement of its 5.00% Senior Notes on June 1, 2021.

Concurrently with the 2060 Notes 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 6.50% Senior Notes due 2035 and a nominal amount of its 6.50% Senior Notes due 2042.

***Interest Expense***

Consolidated interest expense for the three and twelve months ended December 31, 2021 was $122 million and $476 million respectively, an increase of $9 million and $35 million over the same periods in 2020.

***Holding Company Liquidity and Capital Resources***

The Company conducts substantially all of its operations through its wholly owned insurance and service company subsidiaries, and therefore is primarily dependent on dividends, distributions, loans or other payments of funds from these entities to meet its current and future obligations. However, the subsidiaries are separate and distinct legal entities and have no obligation to make funds available to the Company, whether in the form of loans, dividends or other distributions. As of December 31, 2021, the Company, through its downstream subsidiaries LMGI and LMFE, had $8.2 billion and $569 million, respectively, of debt outstanding, excluding discount and issuance costs.

The insurance subsidiaries' ability to pay dividends is restricted under applicable insurance law and regulations and may only be paid from unassigned surplus. Under the insurance laws of the domiciliary states of the insurance subsidiaries, an insurer may make an ordinary dividend payment if its surplus as regards to policyholders, following such dividend, is reasonable in relation to its outstanding liabilities, is adequate to its financial needs and does not exceed the insurer's unassigned surplus. However, no insurer may pay an extraordinary dividend without the approval or non disapproval of the domiciliary insurance regulatory authority. Insurance subsidiaries owned directly by LMGI are LMIC, Liberty Mutual Personal Insurance Company ("LMPICO"), LMFIC 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, 2021) and 2022 available dividend capacity prior to needing regulatory approval for LMIC, LMFIC and EICOW were as follows:

| $ in Millions | RBC Ratio[1] | | Dividend Capacity[2] | Dividends Paid[3] |
|---|---|---|---|---|
| **RBC Ratios and Dividend Capacity** | **2021** | **2020** | **2022** | **2021** |
| LMIC | 389% | 354% | $2,130 | $65 |
| LMFIC | 560% | 525% | $87 | $15 |
| EICOW | 531% | 488% | $83 | $- |

1 Authorized control level risk-based capital as defined by the NAIC.
2 Represents the estimated maximum allowable dividend without prior regulatory approval in the state of domicile.
3 Dividends paid represent amounts paid during the twelve months ended December 31, 2021. Available dividend capacity as of December 31, 2021 is calculated as 2022 dividend capacity less dividends paid for the preceding 12 months

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 and twelve months ended December 31, 2021, LCS recorded $110 million and $327 million, respectively, in pre-tax income.
- Approximately $80 million of annual dividends related to non-redeemable perpetual preferred stock issuances by LMIC and LMFIC.

| $ in Millions | As of December 31, 2021 | As of December 31, 2020 |
|---|---|---|
| Total long-term debt | $9,181 | $8,497 |
| Unamortized discount and debt issuance costs | (511) | (520) |
| Total long-term debt excluding unamortized discount and debt issuance costs | $9,692 | $9,017 |
| | | |
| Total equity excluding accumulated other comprehensive (loss) income | $28,808 | $25,739 |
| | | |
| Total capital excluding accumulated other comprehensive (loss) income[1] | $38,500 | $34,756 |
| | | |
| Debt-to-capital capitalization excluding accumulated other comprehensive (loss) income[1] | 25.2% | 25.9% |
| | | |
| Statutory surplus | $26,481 | $22,830 |

1 Excludes unamortized discount and debt issuance costs

The total debt-to-capital capitalization ratio excluding accumulated other comprehensive loss is calculated by dividing (a) total debt excluding unamortized discount and debt issuance costs by (b) total capital excluding accumulated other comprehensive (loss) income. Net unrealized gains and losses on investments can be significantly impacted by both interest rate movements and other economic factors. Accordingly, in the opinion of the Company's management, the debt-to-total capital ratio calculated on this basis provides another useful metric for investors to understand the Company's financial leverage position. The Company's ratio of debt-to-capital (excluding accumulated other comprehensive (loss) income of 25.2% at December 31, 2021 was within the Company's target range.

## REINSURANCE

***Reinsurance Recoverables***

The Company reported reinsurance recoverables of $17.776 billion and $16.163 billion at December 31, 2021 and December 31, 2020, respectively, net of allowance for doubtful accounts of $123 million and $113 million, respectively. Included in these balances are $874 million and $1.145 billion of paid recoverables and $17.025 billion and $15.131 billion of unpaid recoverables (including retroactive reinsurance), respectively.

The year-to-date $1.613 billion increase in the reported reinsurance recoverables, net of allowance for doubtful accounts, primarily reflects increasing recoveries on inforce reinsurance protection for the casualty lines portfolios and cessions of catastrophe related loss activity on our core property catastrophe covers.

| **S&P Rating[1]** | **As of December 31, 2021** | | | |
|---|---|---|---|---|
| **$ in Millions** | **Gross Recoverables[2]** | **Collateral Held[3]** | **Net Recoverables[4]** | **% of Total Net Recoverables** |
| **Rated Entities** | | | | |
| AAA | $ - | $ - | $ - | - |
| AA+, AA, AA- | 7,313 | 8,869 | 2,379 | 23% |
| A+, A, A- | 4,906 | 489 | 4,469 | 42% |
| BBB+, BBB, BBB- | - | - | - | - |
| BB+ or below | - | - | - | - |
| Subtotal | 12,219 | 9,358 | 6,848 | 65% |
| **Pools & Associations** | | | | |
| State mandated involuntary pools and associations | 2,856 | - | 2,856 | 27% |
| Voluntary | 186 | 121 | 181 | 2% |
| Subtotal | 3,042 | 121 | 3,037 | 29% |
| **Non-Rated Entities[5]** | | | | |
| Captives & fronting companies | 1,567 | 1,722 | 322 | 3% |
| Other | 1,071 | 1,637 | 334 | 3% |
| Subtotal | 2,638 | 3,359 | 656 | 6% |
| Grand Total | $17,899 | $12,838 | $10,541 | 100% |

1 Standard & Poor's ratings are as of December 31, 2021.

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

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

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

5 Reinsurers not rated by Standard & Poor's.

| **Reinsurance Groups[1]** | **As of December 31, 2021** | | |
|---|---|---|---|
| **$ in Millions** | **Gross Recoverables[2]** | **Collateral Held[3]** | **Net Recoverables[4]** |
| 1. Berkshire Hathaway Insurance Group | $4,394 | $8,027 | $241 |
| 2. Swiss Re Group | 1,538 | 608 | 959 |
| 3. Nationwide Group | 1,226 | - | 1,226 |
| 4. Everest Re Group | 742 | 212 | 550 |
| 5. Lloyd's of London | 537 | - | 537 |
| 6. Munich Re Group | 421 | 20 | 407 |
| 7. Alleghany Corp | 404 | 2 | 404 |
| 8. Partner Re Group | 376 | 56 | 321 |
| 9. Enstar Group Ltd | 366 | 343 | 24 |
| 10. CUMIS Insurance Society Group | 332 | - | 332 |
| 11. UPINSCO | 291 | 390 | - |
| 12. Builders Reinsurance S.A. | 270 | 359 | - |
| 13. Hannover Re Group | 261 | 50 | 213 |
| 14. Exchange Indemnity Company | 256 | 122 | 136 |
| 15. Markel Corp | 233 | 2 | 232 |
| State Mandated Involuntary pools and associations | 2,856 | - | 2,856 |
| Voluntary pools and associations | 186 | 121 | 181 |
| All Other | 3,210 | 2,526 | 1,922 |
| Total Reinsurance Recoverables | $17,899 | $12,838 | $10,541 |

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

Approximately 94% 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, 2021. Collateral held against outstanding gross reinsurance recoverable balances was $12.838 billion at December 31, 2021.

The remaining 6% of the Company’s net reinsurance recoverable balance is well diversified. No single reinsurer rated below A- or not rated by A.M. Best or Standard & Poor’s accounts for more than 1% of GAAP equity. In addition, the average net reinsurance recoverable balance from individual reinsurers rated below A- or not rated by A.M. Best and Standard & Poor’s was approximately $1 million as of December 31, 2021.

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

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

***Adverse Development Reinsurance***

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

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

Since the NICO Casualty Reinsurance Transaction is accounted for as retroactive reinsurance in the Company’s GAAP Consolidated Financial Statements, to the extent there is unfavorable development of losses covered by this reinsurance, an additional reinsurance benefit is recognized in the Consolidated Statements of 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.

As the aggregate development on the contract has exceeded the original pre-tax loss of $173 million, deferred gains are now being recorded. The Company reported deferred gain amortization of $37 million and $25 million at December 31, 2021 and December 31, 2020, respectively. As of December 31, 2021 and December 31, 2020, deferred gains were $226 million and $240 million, respectively. Limits remaining on the contract as of December 31, 2021 were $551 million.

In conjunction with the Ironshore acquisition and effective May 1, 2017, the Company entered into a reinsurance transaction with NICO on a combined aggregate excess of loss agreement providing coverage for substantially all of Ironshore’s reserves related to losses occurring prior to January 1, 2017. The first layer of the contract transfers $400 million of held reserves at inception, for which the Company established reinsurance recoverables on the Consolidated Balance Sheet. The second layer of the contract provides adverse development coverage for 95% of $500 million above a retention equal to $3.006 billion, minus paid losses between January 1, 2017 and May 1, 2017, which retention approximates the total held reserves on the covered business on Ironshore’s opening balance sheet. The contract includes a sublimit of $277 million for certain construction liability liabilities. The Company paid NICO consideration of $550 million, including interest accrued at the time of the settlement. The contract is accounted for on a prospective basis. Limits remaining on the contracts in total, and for construction liability liabilities, respectively, were $411 million and zero as of December 31, 2021.

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 $92 million and $4 million as of December 31, 2021 and December 31, 2020, respectively. Limits remaining on the contracts in total, and for asbestos and environmental liabilities, respectively, were $3.259 billion and $464 million as of December 31, 2021.

***Non Catastrophe Reinsurance***

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

***Catastrophe Reinsurance***

The Company has property catastrophe reinsurance coverage for its domestic business and certain specialty operations including: 1) hurricanes and earthquake reinsurance covering a substantial portion of $3.1 billion of loss in excess of $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.

***Catastrophe Bond Reinsurance***

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

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

***Florida Hurricane Catastrophe Fund***

The Company participates in the Florida Hurricane Catastrophe Fund ("FHCF"), a state-mandated catastrophe fund that provides reimbursement to insurers for a portion of their Florida hurricane losses. FHCF resources may be insufficient to meet the obligations of FHCF. Limits, premium and reimbursements from FHCF apply on a per company basis. If losses fall disproportionately on one insurance entity within the Company, recovery from FHCF could be less than anticipated. On June 1, 2021, the Company renewed coverage for 90% of approximately $50 million excess of $20 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 working interests in oil and gas properties, (4) valuation of goodwill and intangible assets, (5) deferred income tax valuation allowance, and (6) pension and postretirement benefit obligations.

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

For additional discussion, please refer to footnote 1 in the Company's December 31, 2021 Audited Consolidated Financial Statements.

**Unpaid Claims and Claim Adjustment Expenses**

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

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

For additional discussion, please refer to footnote 6 in the Company's December 31, 2021 Audited Consolidated Financial Statements.

**Asbestos and Environmental**

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

For additional discussion, please refer to footnote 6 in the Company's December 31, 2021 Audited Consolidated Financial Statements.

**Reinsurance Recoverables**

Amounts recoverable from reinsurers are estimated in a manner consistent with the claim liability associated with the reinsured business. The Company evaluates and monitors the financial condition of its reinsurers under voluntary reinsurance arrangements to minimize its exposure to significant losses from reinsurer insolvencies. The Company reports its reinsurance recoverables net of an allowance for 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, 2021 Audited Consolidated Financial Statements.

**Fair Value Determination**

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

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

Regarding fair value measurements, as of December 31, 2021, excluding other assets, the Company reflected $14.350 billion (18.5%) 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 December 31, 2021, the Company reported $60.465 billion (77.9%) as level 2, consisting primarily of fixed maturity securities. Finally, the Company reported $2.829 billion (3.6%) 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, 2021 Audited Consolidated Financial Statements.

**Impairment Losses on Investments**

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

The Company 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 comparable and analyses, commodity prices, and discounted cash flows and a realized loss is recognized for the excess, if any, of the investment's carrying value over its estimated fair value.

For additional discussion, please refer to footnote 1 in the Company's December 31, 2021 Audited Consolidated Financial Statements.

**Goodwill and Intangible Assets**

Goodwill is tested for impairment at least annually using either a qualitative or a quantitative process. Election of the approach can be made at the reporting unit level. The reporting unit has the option to skip the qualitative test and move directly to completion of the quantitative process. As of December 31, 2021, the Company has two reporting units – Global Retail Markets and Global Risk Solutions.

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

The Company had no material goodwill or intangible asset impairments recognized in 2021.

For additional discussion, please refer to footnote 1 in the Company's December 31, 2021 Audited Consolidated Financial Statements.

**Deferred Income Taxes**

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

No additional income taxes have been provided for any undistributed foreign earnings or outside basis differences as these amounts continue to be indefinitely reinvested. Determining the amount of any related unrecognized deferred tax liability is not practicable.

As of December 31, 2021, the U.S. Treasury Department and the Internal Revenue Service ("IRS") are still in the process of issuing various regulations in accordance with the Tax Cuts and Jobs Act of 2017. Accordingly, future adjustments to the financial statements may be necessary as regulations are issued and the 2021 tax returns are filed with the IRS and foreign tax authorities.

Global intangible low-taxed income ("GILTI") is treated by the Company as a period expense.

For additional discussion, please refer to footnote 8 in the Company's December 31, 2021 Audited Consolidated Financial Statements.

**Pension and Postretirement Benefit Obligations**

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

The discount rate assumption used to determine the benefit obligations was based on a yield curve approach where the cash flows related to the benefit plans' liability stream were discounted at an interest rate specifically applicable to the timing of the cash flows. 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.

For additional discussion, please refer to footnote 9 in the Company's December 31, 2021 Audited Consolidated Financial Statements.

**ABOUT THE COMPANY**

Boston-based LMHC, the parent corporation of the Liberty Mutual Insurance group of entities, is a diversified global insurer and fourth largest property and casualty insurer in the U.S. based on 2020 direct written premium. The Company also ranks 71st on the Fortune 100 list of largest corporations in the U.S. based on 2020 revenue. As of December 31, 2021, LMHC had $156.043 billion in consolidated assets, $128.195 billion in consolidated liabilities, and $48.200 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.