



The Hanover Insurance Group, Inc.

Second Quarter 2023 Results August 3, 2023

*To be read in conjunction with the press release dated
August 2, 2023, and conference call scheduled for August 3, 2023*



Second Quarter 2023 Operating Highlights

- Combined ratio of 111.3%; combined ratio, excluding catastrophes⁽¹⁾, of 92.8%
- Catastrophe losses of \$261.6 million, or 18.5 points of the combined ratio, driven by 19 convective storms across multiple states, with hail damage representing the majority of reported losses, primarily impacting Personal Lines
- Net premiums written increase of 8.6%*, with contributions from each segment
- Renewal price increases⁽²⁾ of 15.9% in Personal Lines, including 21.7% in homeowners, as well as increases of 11.4% in Specialty and 11.3% in Core Commercial
- Rate increases⁽²⁾ of 9.8% in Personal Lines, 6.4% in Specialty, and 7.8% in Core Commercial
- Current accident year loss and loss adjustment expense (LAE) ratio, excluding catastrophes⁽³⁾, of 62.3%, was slightly above the company's expectations, primarily due to higher losses in Personal Lines, while performance in Specialty and Core Commercial beat company expectations
- Net investment income of \$87.6 million, up 24.3% from the prior-year quarter, primarily due to higher bond reinvestment rates and the continued investment of operational cashflows, as well as the benefit of higher non-recurring partnership income
- Book value per share of \$62.62, down 6.4% from March 31, 2023

*Unless otherwise stated, net premiums written growth and other growth comparisons are to the same period of the prior year

(1) See information about this and other non-GAAP measures and definitions used throughout this press release on the final pages of this document. The Hanover Insurance Group, Inc. may also be referred to as "The Hanover" or "the company" interchangeably throughout this presentation.



Second Quarter Consolidated Financial Results

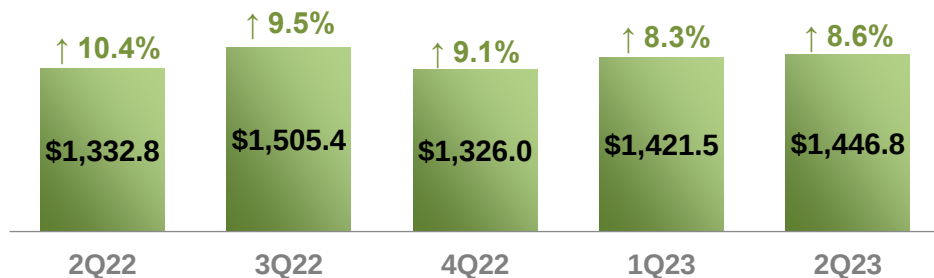
(\$ in millions, except per share amounts)	Three months ended		Six months ended	
	June 30, 2022	June 30, 2023	June 30, 2022	June 30, 2023
Net income (loss)	\$22.7	(\$69.2)	\$127.6	(\$81.2)
Per diluted/(basic) share	\$0.63	(\$1.94)	\$3.53	(\$2.27)
Operating income (loss) before interest expense and income taxes ⁽⁴⁾	\$115.0	(\$79.4)	\$269.4	(\$66.2)
Operating income (loss) after income taxes	\$83.9	(\$68.3)	\$201.6	(\$63.7)
Per diluted/(basic) share	\$2.32	(\$1.91)	\$5.58	(\$1.78)
Book value per share	\$72.33	\$62.62	\$72.33	\$62.62
Book value per share, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax ⁽⁵⁾	\$85.22	\$79.68	\$85.22	\$79.68
Shareholders' equity	\$2,576.2	\$2,237.9	\$2,576.2	\$2,237.9
Debt	\$782.0	\$782.8	\$782.0	\$782.8
Total capital	\$3,358.2	\$3,020.7	\$3,358.2	\$3,020.7
Debt/total capital	23.3%	25.9%	23.3%	25.9%
Total assets	\$13,599.7	\$14,186.7	\$13,599.7	\$14,186.7
Net income (loss) return on average equity ⁽⁶⁾	3.4%	(12.0)%	9.0%	(7.0)%
Operating income (loss) return on average equity ⁽⁶⁾	11.1%	(9.4)%	13.4%	(4.4)%



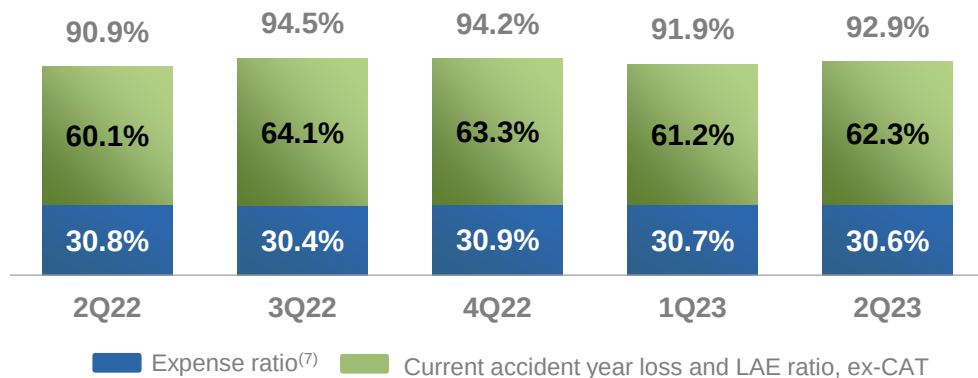
Second Quarter Underwriting Results

(\$ in millions)

Net Premiums Written and Growth



Current Accident Year Combined Ratio, Ex-CAT



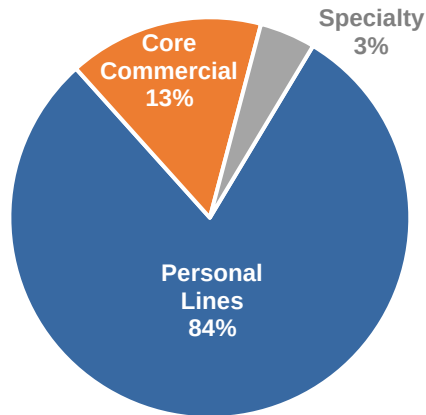
- Second quarter 2023 combined ratio of 111.3%, increased 15.1 points from the prior-year quarter, driven by catastrophe losses stemming from 19 convective storms across multiple states
 - Hail damage represented majority of reported catastrophe losses and primarily impacted Personal Lines
- Current accident year combined ratio, ex-CAT, increased 2.0 points from the prior-year quarter, and was slightly above the company's expectations for the second quarter of 2023
- Prior-year reserve development, excluding catastrophes, was immaterial in the quarter, with favorability in Specialty offsetting unfavorable development in Personal Lines
- Expense ratio improved 20-basis-points from the prior-year quarter, driven by fixed cost leverage from premium growth, and is in line with the company's full year target
- Net premiums written increased 8.6%, with contributions from each segment



Second Quarter Catastrophe Losses

CAY CAT Losses of \$261.6 million (18.5pts of CR)

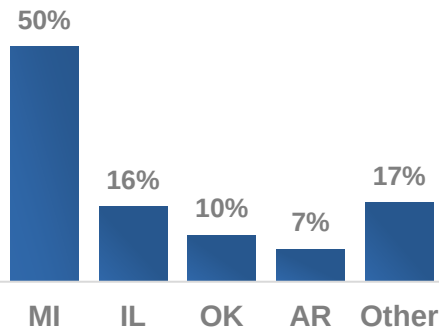
Losses by Segment



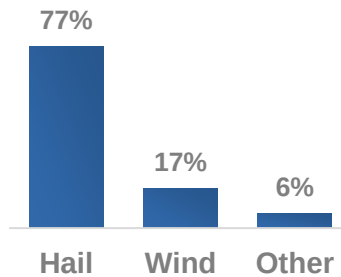
Personal Lines

CAY CAT Losses of \$210.2 million (36.4pts of CR)

PL CAT Losses by State



PL CAT Losses by Peril

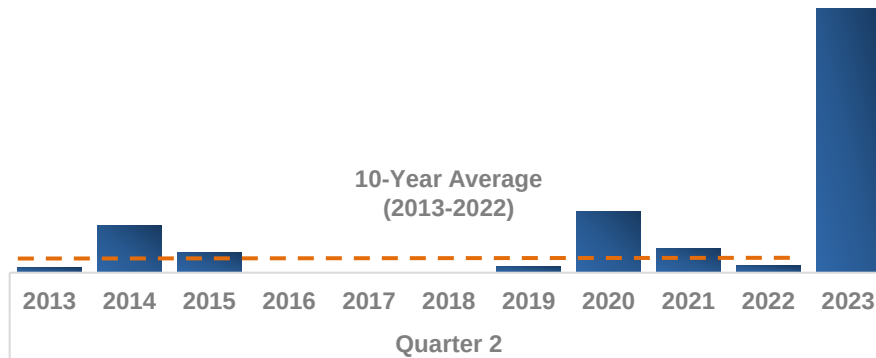


- Catastrophe losses in the second quarter were driven by 19 convective storms across multiple states
- Losses were predominately in Personal Lines, of which:
 - Approximately 50% occurred in Michigan
 - Approximately 77% were from hail damage
- Strong track record of proactively addressing and adapting to catastrophe trends leading to:
 - Lower exposure to hurricanes and coastal risks
 - Much lower concentration and vulnerability to historically exposed tornado regions
 - Significantly more diversified segment mix
- Pursuing property underwriting enhancements, pricing acceleration (see pages 12 and 13), and more assertive loss control and risk prevention measures
- Implementing the following home product changes where permissible to reduce future CAT vulnerability:
 - Increasing all-peril deductibles to specific minimum levels by coverage A limit
 - Implementing wind and hail deductibles in multiple states
 - Transitioning to an amortizing actual cash-value schedule for roofs as our standard offering



CAT Losses from Hail – Historical Trending Detail

The Hanover Homeowners Q2 Michigan CAT Hail Losses as % of Homeowners NEP

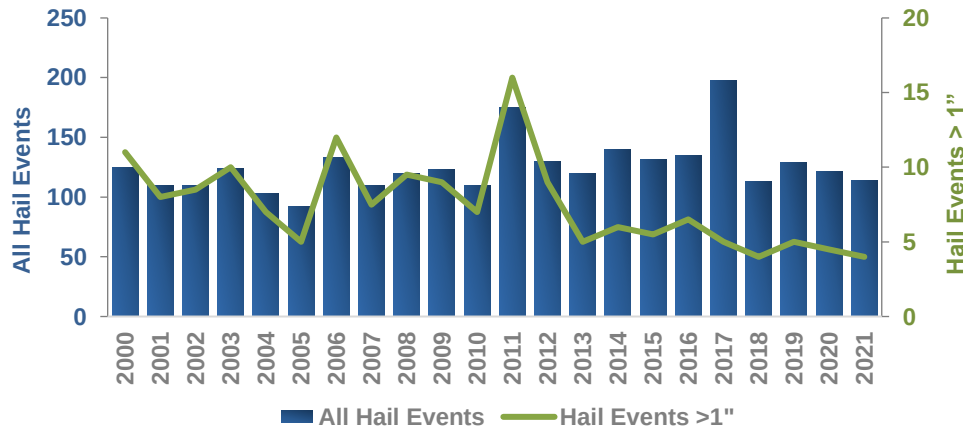


Hanover Observations

- The level of hail CAT losses experienced in Michigan during the second quarter 2023 is highly unusual
- Second quarter 2023 Michigan hail CAT losses in homeowners were more than 10x above the average for the prior ten years

Number of Residential Risks/Buildings Affected by Radar Hail in U.S.*

(in millions)



Industry Insights*

- Frequency and severity of hail in the U.S. has not increased
- There is no clear trend of changing hail propensity over recent history

*Source: Gallagher Re / NOAA: Calculations are based on constant exposure data set



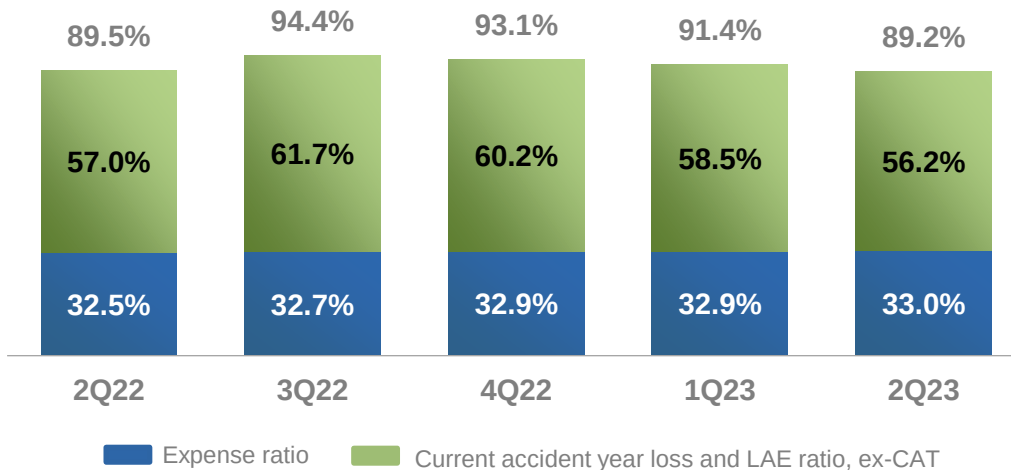
Core Commercial Underwriting Highlights

(\$ in millions)

	Three months ended June 30		Six months ended June 30	
	2022	2023	2022	2023
Net premiums written	\$454.2	\$486.8	\$980.8	\$1,052.1
<i>Growth</i>	7.7%	7.2%	8.7%	7.3%
Net premiums earned	\$480.1	\$515.6	\$954.8	\$1,023.0
Catastrophe ratio	3.7%	6.5%	3.9%	9.5%
Prior-year development ratio	(0.6)%	0.1%	(1.0)%	0.4%
Expense ratio	32.5%	33.0%	32.7%	32.9%
Combined ratio	92.6%	95.8%	92.9%	100.2%
Combined ratio, ex-CAT	88.9%	89.3%	89.0%	90.7%

- Second quarter 2023 combined ratio, ex-CAT, of 89.3%, increased 0.4 points from the prior-year quarter
- Current accident year loss and LAE ratio, ex-CAT, improved 0.8 points from the prior-year quarter, primarily due to favorable property large loss trends in commercial multiple peril

Current Accident Year Combined Ratio, Ex-CAT

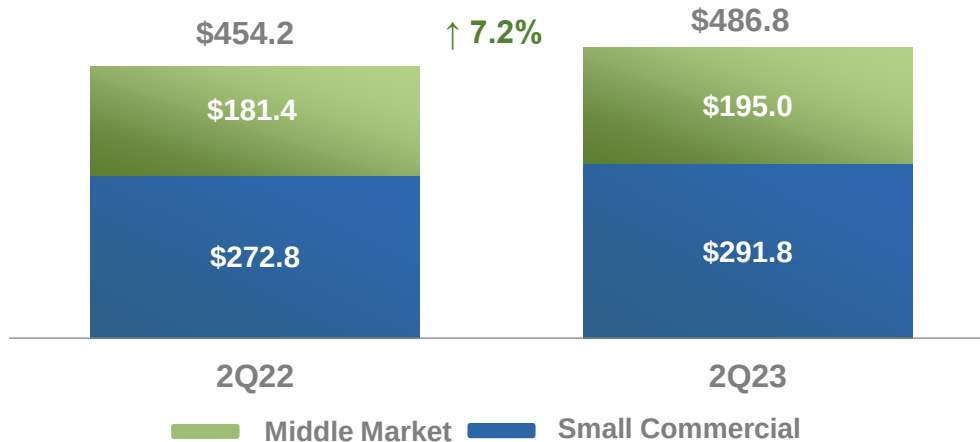




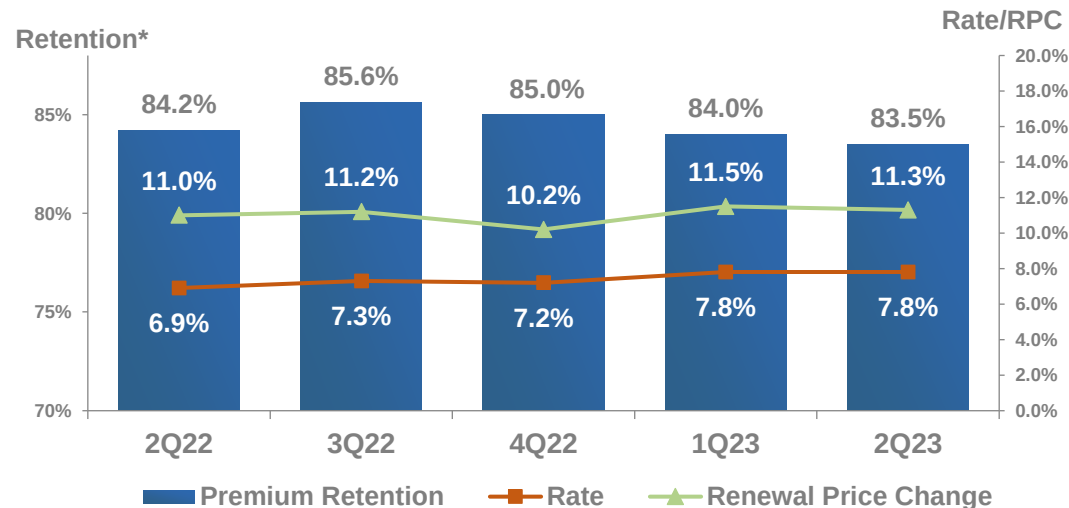
Core Commercial Growth Highlights

(\$ in millions)

Net Premiums Written and Growth



- Net premiums written growth of 7.2% in the second quarter of 2023, driven by:
 - Growth of 7.0% in small commercial, and 7.5% in middle market, propelled by strong pricing
- Renewal price increases of 11.3%, driven by rate, as well as insurance-to-value and other exposure adjustments
 - Healthy rate increases of 7.8% in the quarter
 - Achieved property renewal price change of 12.6%, up from 11.4% in the first quarter of 2023
 - A slight decrease in retention reflects the impact of middle market property underwriting actions



* Retention is defined as the ratio of net retained premium for the noted period to the premium available to renew over the same period



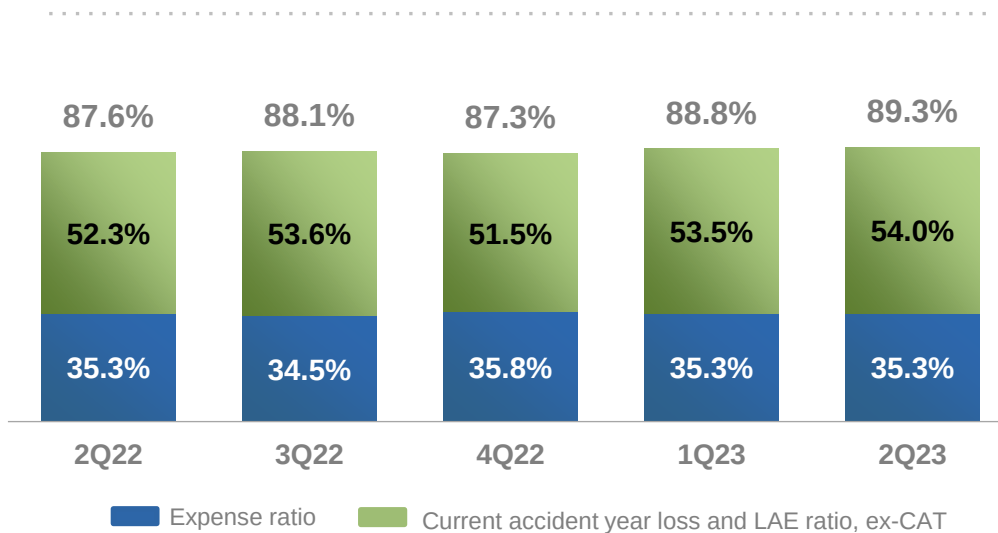
Specialty Underwriting Highlights

(\$ in millions)

	Three months ended June 30		Six months ended June 30	
	2022	2023	2022	2023
Net premiums written	\$302.3	\$325.4	\$605.1	\$649.7
<i>Growth</i>	14.0%	7.6%	11.7%	7.4%
Net premiums earned	\$293.5	\$319.8	\$577.3	\$631.5
Catastrophe ratio	2.2%	2.8%	2.5%	4.8%
Prior-year development ratio	(0.4)%	(3.7)%	(2.5)%	(4.7)%
Expense ratio	35.3%	35.3%	35.4%	35.3%
Combined ratio	89.4%	88.4%	88.6%	89.2%
Combined ratio, ex-CAT	87.2%	85.6%	86.1%	84.4%

- Second quarter 2023 combined ratio, ex-CAT, of 85.6%, decreased 1.6 points from the prior-year quarter
- Net favorable prior-year reserve development, excluding catastrophes, of \$11.7 million, or 3.7 points, driven primarily by professional and executive lines claims-made business
- Current accident year loss and LAE ratio, ex-CAT, increased 1.7 points from the prior-year quarter
 - The increase from the prior-year quarter reflects prudently increased loss selections in certain liability coverages, as well as a comparison to an unusually low level of losses in specialty property lines in the second quarter of 2022
 - The second quarter 2023 ratio is in line with the company's expectations

Current Accident Year Combined Ratio, Ex-CAT





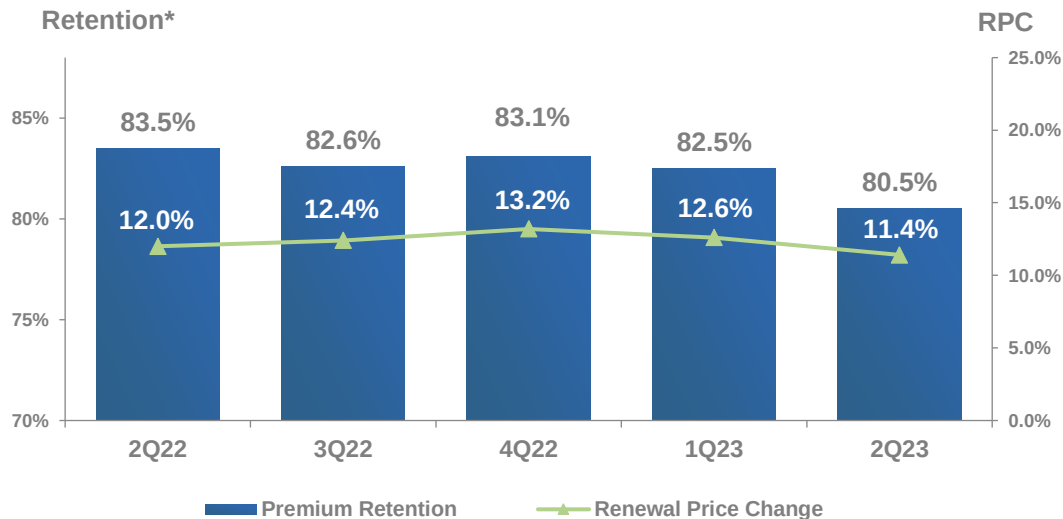
Specialty Growth Highlights

(\$ in millions)

Net Premiums Written and Growth



- Net premiums written growth of 7.6% in the second quarter 2023, driven primarily by renewal price increases, particularly in property
- Renewal price increases remain healthy at 11.4%, driven by increases in property including 23% in Hanover specialty industrial and 14% in marine, our two largest property lines in Specialty
 - Experienced pricing deceleration in professional and executive lines, particularly in management liability, consistent with prevailing market conditions. The line continues to deliver outstanding profitability.



* Retention is defined as the ratio of net retained premium for the noted period to the premium available to renew over the same period

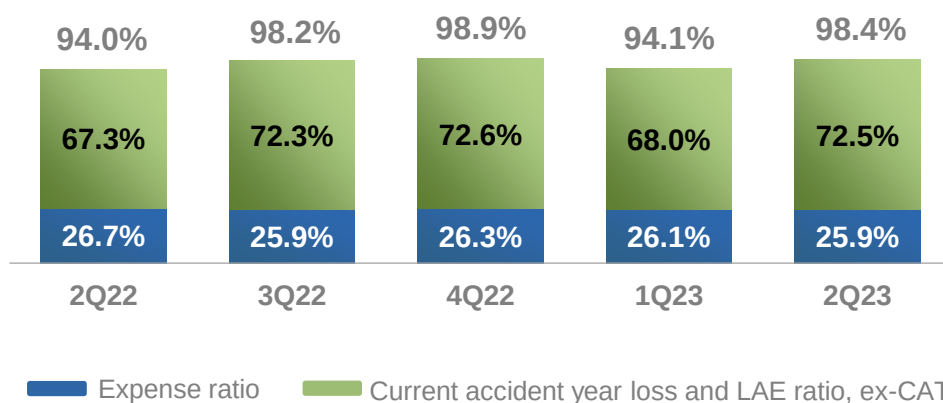


Personal Lines Underwriting Highlights

(\$ in millions)

	Three months ended June 30		Six months ended June 30	
	2022	2023	2022	2023
Net premiums written	\$576.3	\$634.6	\$1,059.2	\$1,166.5
Growth	10.7%	10.1%	10.4%	10.1%
Net premiums earned	\$520.2	\$576.3	\$1,025.5	\$1,137.2
Catastrophe ratio	10.2%	38.0%	6.9%	27.2%
Prior-year development ratio	(1.0)%	1.6 %	0.8 %	1.8 %
Expense ratio	26.7%	25.9%	26.9%	26.0%
Combined ratio	103.2%	138.0%	100.2%	125.3%
Combined ratio, ex-CAT	93.0%	100.0%	93.3%	98.1%

Current Accident Year Combined Ratio, Ex-CAT



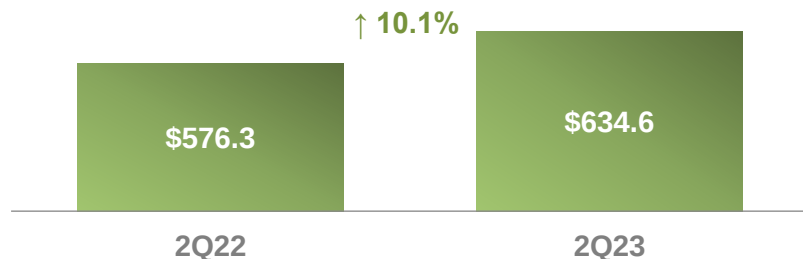
- Second quarter 2023 combined ratio, ex-CAT, of 100.0%, increased 7.0 points from the prior-year quarter, primarily due to an increase in the loss ratio
- Current accident year loss and LAE ratio, ex-CAT, increased 5.2 points from the prior-year quarter, primarily driven by inflationary pressure on auto and homeowners property and, to a lesser extent, pressure on liability coverages in auto and unusually high large fire losses in homeowners
- The expense ratio of 25.9% decreased by 0.8 points from the prior-year quarter, primarily attributable to fixed cost leverage from premium growth and lower performance-based agency compensation
- Net unfavorable prior-year reserve development, excluding catastrophes, of \$9.3 million, or 1.6 points, driven by liability coverages



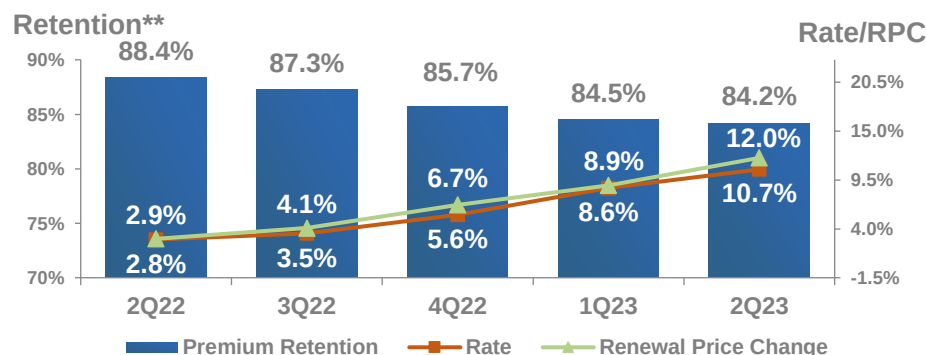
Personal Lines Growth Highlights

(\$ in millions)

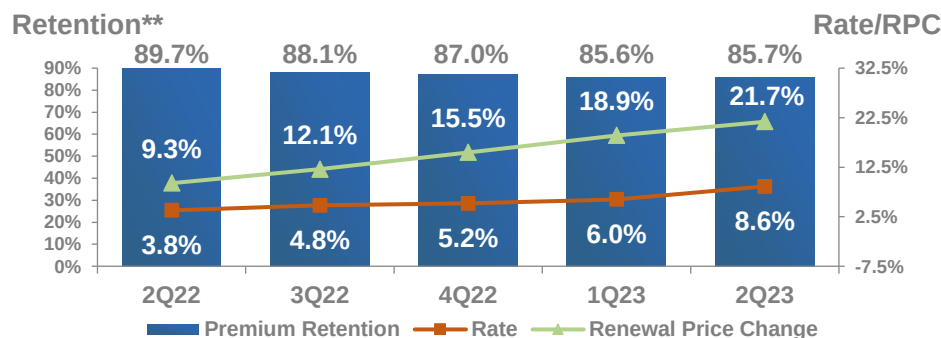
Net Premiums Written and Growth



Personal Auto



Homeowners



- Second quarter 2023 net premiums written growth of 10.1%, driven by robust pricing increases
- Renewal price increases of 15.9%, including 21.7% in homeowners and 12.0% in auto, outpacing the company's original expectations
- Retention remains strong around 85%, underscoring the continued hard market in Personal Lines
- We expect further implementation of accelerated rate filings and exposure adjustments, supported by the hard market, will result in:
 - Homeowners renewal price change* of approximately 27% by the end of the year, which is about nine points above the company's original expectation
 - Personal auto renewal price change* of approximately 13% to 14% in the second half of the year, which is about three to four points above the company's original expectation

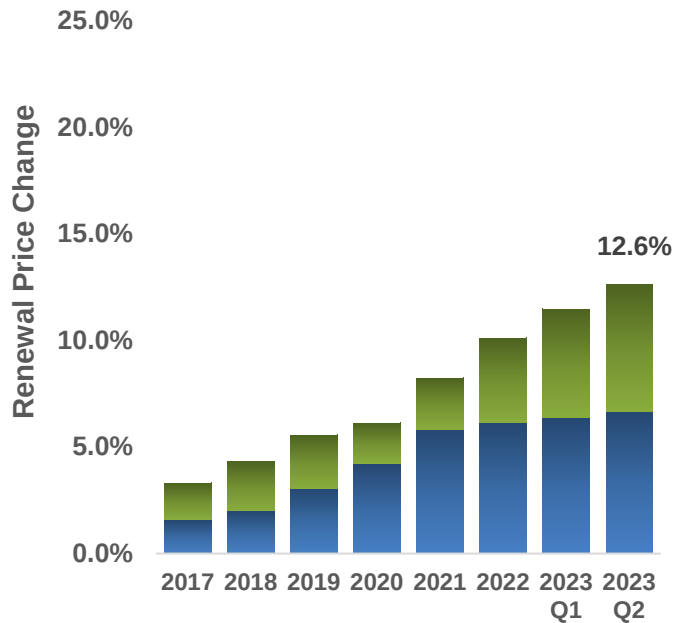
*A part of renewal price change is subject to regulatory approvals and competitive dynamics
 **Retention is defined as the ratio of net retained policies for the noted period to those policies available to renew over the same period and includes policies that were cancelled and rewritten.



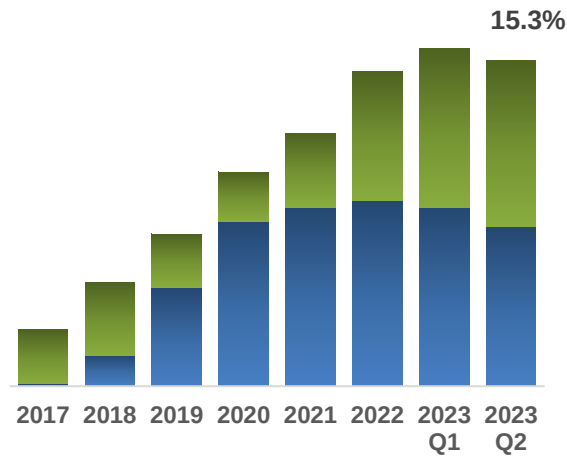
Successfully Executing on Pricing Levers in Property

Achieving Highest Property Renewal Price Change in Years

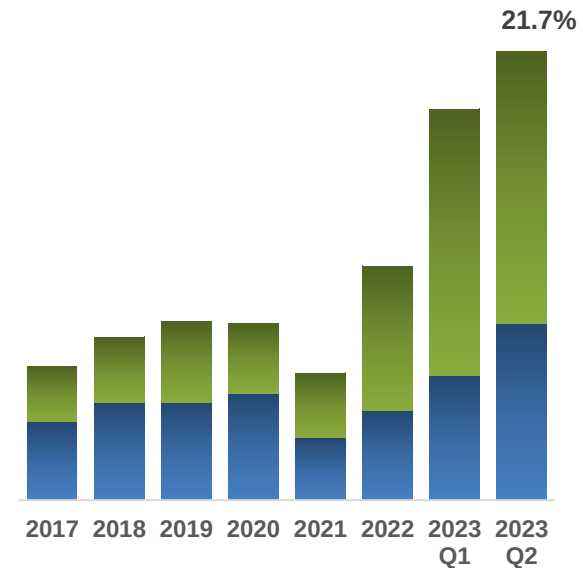
Core CL Property



Specialty Property Offerings



Homeowners



Components of Renewal Price Change

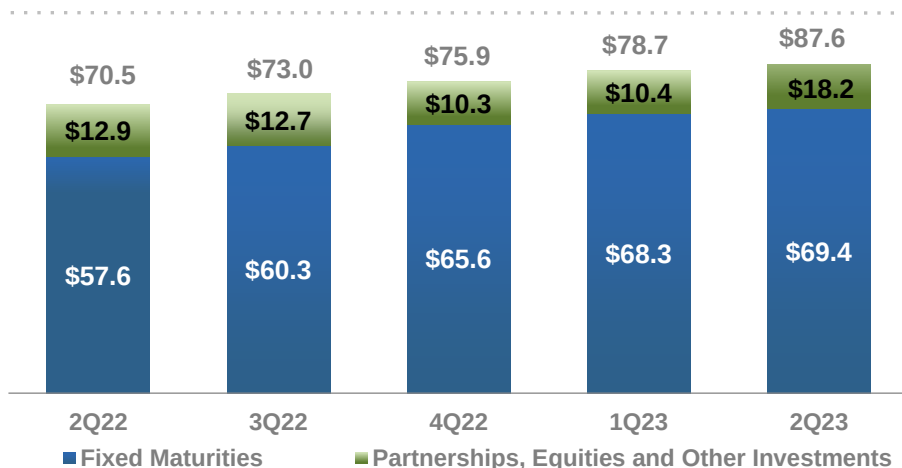
■ Rate ■ Exposure



Net Investment Income Trends

(\$ in millions)

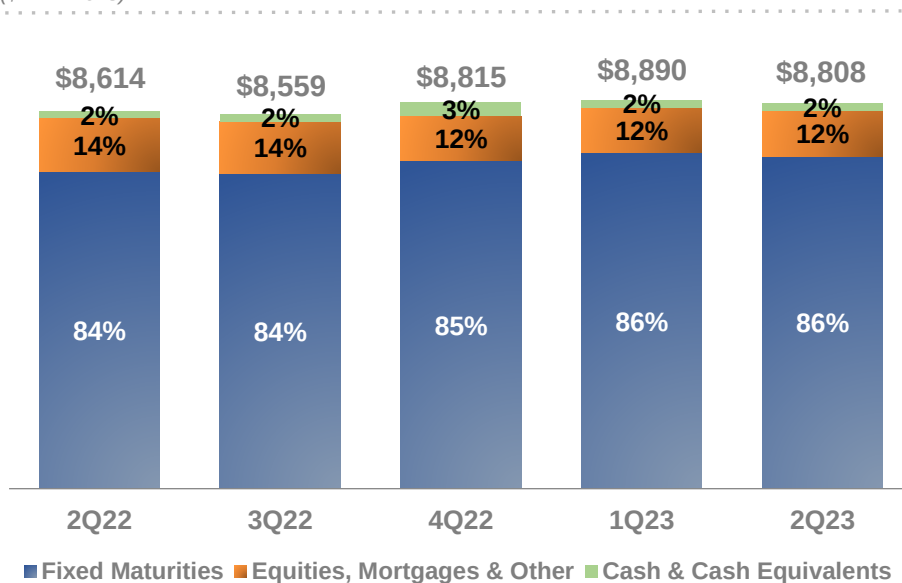
Net Investment Income*



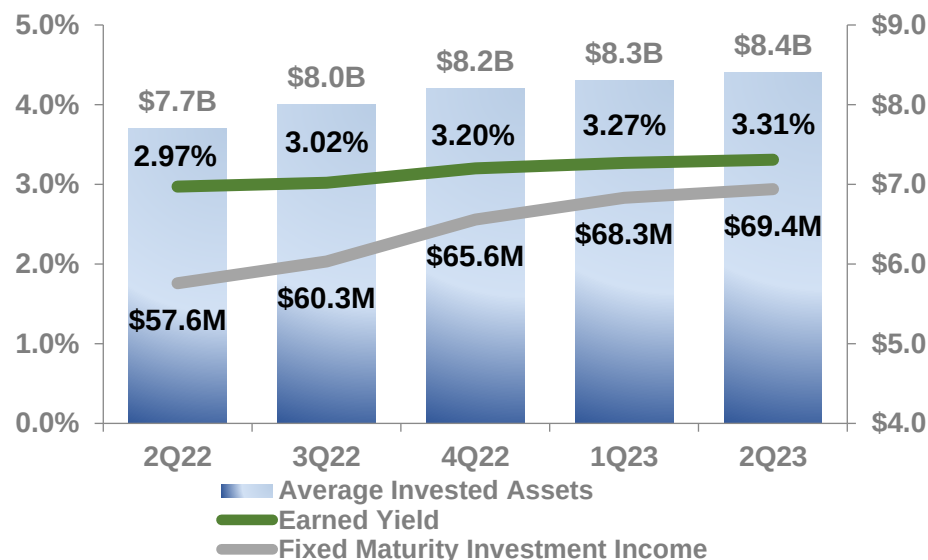
- Net investment income of \$87.6 million, up 24.3% from the prior-year quarter, due to higher bond reinvestment rates and the continued investment of operational cashflows, as well as the benefit from higher non-recurring income from a real estate sale in an older tax credit partnership
- Expect higher interest rates to provide meaningful tailwind in 2023 and beyond

(\$ in millions)

Cash and Invested Assets



Fixed Maturity Investment Portfolio Trends



* Net investment income from partnerships, equities and other investments are presented net of investment expenses

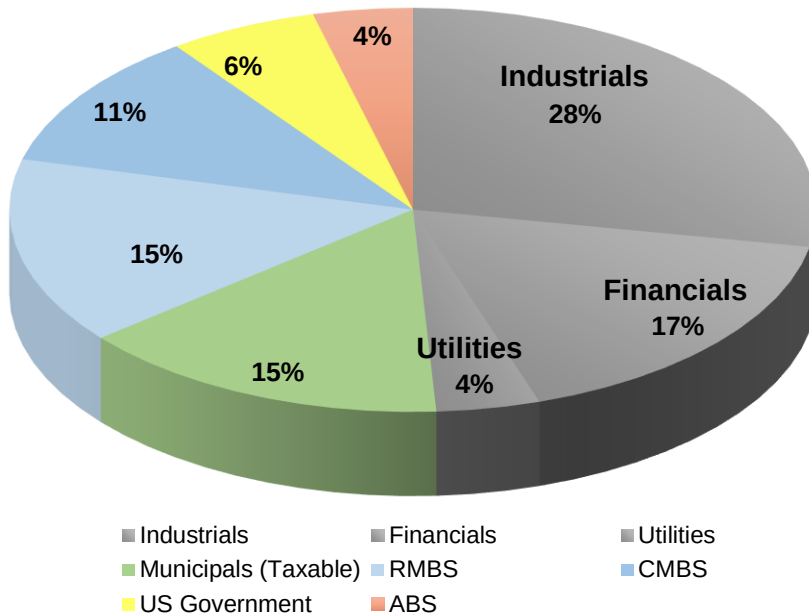


Investment Portfolio – Total Invested Assets and Cash of \$8.8 Billion

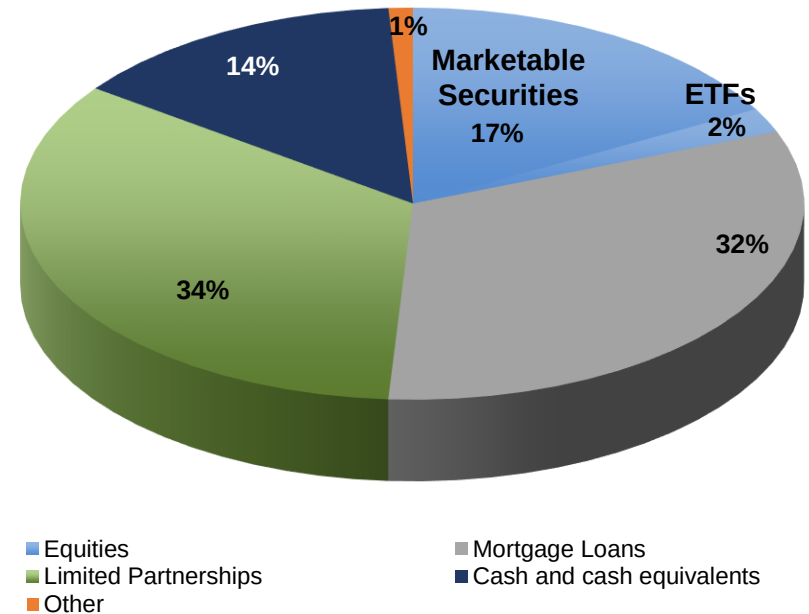
As of June 30, 2023

High quality, well-diversified investment portfolio

Fixed Maturities: \$7.6 Billion



Equities, Cash and Other: \$1.2 Billion



High-quality, well-laddered fixed income portfolio

- 95% of fixed maturity securities are investment grade
- Weighted average quality: A+
- Duration: 4.1 years



About The Hanover

The Hanover Insurance Group, Inc. is the holding company for several property and casualty insurance companies, which together constitute one of the largest insurance businesses in the United States. The company provides exceptional insurance solutions through a select group of independent agents and brokers. Together with its agent partners, The Hanover offers standard and specialized insurance protection for small and mid-sized businesses, as well as for homes, automobiles, and other personal items. For more information, please visit hanover.com.



Forward-Looking Statements

Certain statements in this document and comments made by management may be “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, may be forward-looking statements. Words such as, but not limited to, “believes,” “anticipates,” “expect,” “may,” “projects,” “projections,” “plan,” “likely,” “potential,” “targeted,” “forecasts,” “should,” “could,” “continue,” “outlook,” “guidance,” “modeling,” “target profitability,” “target margins,” “moving forward,” “confident,” “will,” and other similar expressions are intended to identify forward-looking statements. Forward-looking statements by their nature address matters that are, to different degrees, uncertain. The company cautions investors that any such forward-looking statements are estimates, beliefs, expectations and/or projections that involve significant judgment, and that historical results, trends and forward-looking statements are not guarantees and are not necessarily indicative of future performance. Actual results could differ materially from those anticipated.

These statements include, but are not limited to, the company's statements regarding:

- The company's outlook and its ability to achieve components or the sum of the respective period guidance on its future results of operations including: the combined ratio, excluding catastrophe losses; catastrophe losses; net investment income; growth of net premiums written and/or net premiums earned in total or by line of business; expense ratio; operating return on equity; interest rate assumptions, renewal price change, rate, and/or the effective tax rate;
- The company's ability to deliver on expectations set forth related to target margins, target returns and/or return to target profitability in total or by line of business;
- The company's ability to deliver on its long-term targets, including, but not limited to, return on equity;
- The lingering impacts of the global pandemic (“Pandemic”) and general economic and sociopolitical conditions on the company's operating and financial results, including, but not limited to, the impact on the company's investment portfolio, changes in claims frequency as a result of fluctuations in economic activity, and/or severity from higher cost of repairs due to, among other things, supply chain disruptions and inflation;
- Uses of capital for share repurchases, special or ordinary cash dividends, business investments or growth, or otherwise, and outstanding shares in future periods as a result of various share repurchase mechanisms, capital management framework, especially in the current environment, and overall comfort with liquidity and capital levels;
- Variability of catastrophe losses due to risk concentrations, changes in weather patterns including climate change, and severe weather including wildfires, hurricanes, terrorism, civil unrest, winter storms, tornados, riots or other events, as well as the complexity in estimating losses from large catastrophe events due to delayed reporting of the existence, nature or extent of losses or where “demand surge,” regulatory assessments, litigation, coverage and technical complexities or other factors may significantly impact the ultimate amount of such losses;
- Current accident year losses and loss selections (“picks”), excluding catastrophes, and prior accident year loss reserve development patterns, particularly in complex “longer-tail” liability lines, as well as the inherent variability in short-tail property and non-catastrophe weather losses;
- Changes in frequency and loss severity trends in Core Commercial, Specialty and/or Personal Lines;
- Ability to manage the impact of inflationary pressures, as a result of and following the Pandemic, global market disruptions, geopolitical events or otherwise, including, but not limited to, supply chain disruptions, labor shortages, and increases in cost of goods, services, labor, and materials;
- The confidence or concern that the current level of reserves is adequate and/or sufficient for future claim payments, whether due to losses that have been incurred but not reported, circumstances that delay the reporting of losses, business complexity, adverse judgments or developments with respect to case reserves, the difficulties and uncertainties inherent in projecting future losses from historical data, changes in replacement and medical costs, as well as complexities related to the Pandemic, including legislative, regulatory or judicial actions that expand the intended scope of coverages, or other factors;
- Characterization of some business as being “more profitable” in light of inherent uncertainty of ultimate losses incurred, especially for “longer-tail” liability businesses;
- Efforts to manage expenses, including the company's long-term expense savings targets, while allocating capital to business investment, which is at management's discretion;
- Risks and uncertainties with respect to our ability to retain profitable policies in force and attract profitable policies, achieve renewal price increases, and to increase rates commensurate with, or in excess of, loss trends;
- Mix improvement, underwriting initiatives, coverage restrictions, non-renewals, and pricing segmentation, among others, to grow businesses believed to be more profitable or reduce premiums attributable to products or lines of business believed to be less profitable; balance rate actions and retention; offset long-term and/or short-term loss trends due to increased frequency; increased “social inflation” from a more litigious environment and higher average cost of resolution, increased property replacement costs, and/or social movements;
- The ability to generate growth in targeted segments through new agency appointments; rate increases (as a result of its market position, agency relationships or otherwise), retention improvements or new business; expansion into new geographies; new product introductions; or otherwise; and
- Investment returns and the effect of macro-economic interest rate trends and overall security yields, including the macro-economic impact of the Pandemic, inflationary pressures and corresponding governmental and/or central banking initiatives taken in response thereto, and geopolitical circumstances on new money yields and overall investment returns.



Additional Risks and Uncertainties

Investors are further cautioned and should consider the risks and uncertainties in the company's business that may affect such estimates and future performance that are discussed in the company's most recently filed reports on Form 10-K and Form 10-Q and other documents filed by The Hanover Insurance Group, Inc. with the Securities and Exchange Commission ("SEC") and that are also available at www.hanover.com under "Investors." These risks and uncertainties include, but are not limited to:

- Changes in regulatory, legislative, economic, market and political conditions, particularly with respect to rates, the use of data, technology and artificial intelligence, policy terms and conditions, payment flexibility, and regions where the company has geographical concentrations;
- Heightened volatility, fluctuations in interest rates (which have a significant impact on the market value of our investment portfolio and thus our book value), inflationary pressures, default rates and other factors that affect investment returns from the investment portfolio;
- Recessionary economic periods that may inhibit the company's ability to increase pricing or renew business, or otherwise impact the company's results, and which may be accompanied by higher claims activity in certain lines;
- Data security and privacy incidents, including, but not limited to, those resulting from a malicious cyber security attack on the company or its business partners and service providers, or intrusions into the company's systems, including cloud-based data storage, or data sources;
- Adverse claims experience, including those driven by large or increased frequency and/or severity of catastrophe events, including those related to wildfires, winter storms, hurricanes, terrorism, civil unrest, riots or other severe weather;
- The limitations and assumptions used to model non-catastrophe property and casualty losses (particularly with respect to products with longer-tail liability lines, such as casualty and bodily injury claims, or involving emerging issues related to losses incurred as the result of new lines of business, such as cyber or financial institutions coverage, or reinsurance contracts and reinsurance recoverables), leading to potential adverse development of loss and loss adjustment expense reserves;
- Changes in weather patterns and severity, whether as a result of global climate change, or otherwise, causing a higher level of losses from weather events to persist;
- Litigation and the possibility of adverse judicial decisions, including those which expand policy coverage beyond its intended scope and/or award "bad faith" or other non-contractual damages, and the impact of "social inflation" affecting judicial awards and settlements;
- The ability to increase or maintain insurance rates in line with anticipated loss costs and/or governmental action, including mandates by state departments of insurance to either raise or lower rates, or provide credits or return premium to insureds;
- Investment impairments, which may be affected by, among other things, the company's ability and willingness to hold investment assets until they recover in value, as well as credit and interest rate risk, and general financial and economic conditions;
- Disruption of the independent agency channel, including the impact of competition and consolidation in the industry and among agents and brokers;
- Competition, particularly from competitors who have resource and capability advantages;
- The global macroeconomic environment, including actions taken in response to the Pandemic, inflation, recessionary effects, global trade disputes, war, energy market disruptions, equity price risk, and interest rate fluctuations, which, among other things, could result in reductions in market values of fixed maturities and other investments;
- Adverse state and federal regulation, legislative and/or regulatory actions (including significant revisions to Michigan's automobile personal injury protection system and related litigation, and various regulations, orders and proposed legislation related to business interruption and workers' compensation coverages, premium grace periods and returns, and rate actions);
- Financial ratings actions, in particular, downgrades to the company's ratings;
- Operational and technology risks and evolving technological and product innovation, including risks created by remote work environments, and the risk of cyber-security attacks on or breaches of the company's systems and/or impacting our outsourcing relationships and third-party operations, or resulting in claim payments (including from products not intended to provide cyber coverage);
- Uncertainties in estimating indemnification liabilities recorded in conjunction with obligations undertaken in connection with the sale of various businesses and discontinued operations;
- The ability to collect from reinsurers, reinsurance pricing, reinsurance terms and conditions, and the performance of the run-off voluntary property and casualty pools business (including those in the Other segment or in discontinued operations); and,
- Continuing risks and uncertainties associated with the impact of the Pandemic and related general economic conditions

Investors should not place undue reliance on forward-looking statements, which speak only as of the date they are made and should understand the risks and uncertainties inherent in or particular to the company's business. The company does not undertake the responsibility to update or revise such forward-looking statements, except as required by law.



Non-GAAP Financial Measures

Non-GAAP Financial Measures

As discussed on page 38 of the company's Annual Report on Form 10-K for the year ended December 31, 2022, the company uses non-GAAP financial measures as important measures of its operating performance, including operating income (loss), operating income (loss) before interest expense and income taxes, operating income (loss) per share, and components of the combined ratio, both excluding and/or including catastrophe losses, prior-year reserve development and the expense ratio. Management believes these non-GAAP financial measures are important indications of the company's operating performance. The definition of other non-GAAP financial measures and terms can be found in the 2022 Annual Report on pages 63-66.

Operating income (loss) and operating income (loss) per share are non-GAAP measures. They are defined as net income (loss) excluding the after-tax impact of net realized and unrealized investment gains (losses), gains and/or losses on the repayment of debt, other non-operating items, and results from discontinued operations. Net realized and unrealized investment gains (losses), which include changes in the fair value of equity securities still held, are excluded for purposes of presenting operating income, as they are, to a certain extent, determined by interest rates, financial markets and the timing of sales. Operating income also excludes net gains and losses from disposals of businesses, gains and losses related to the repayment of debt, costs to acquire businesses, restructuring costs, the cumulative effect of accounting changes, and certain other items. Operating income (loss) is the sum of the segment income (loss) from: Core Commercial, Specialty, Personal Lines, and Other, after interest expense and income taxes. In reference to one of the company's four segments, "operating income (loss)" is the segment income (loss) before both interest expense and income taxes. The company also uses "operating income (loss) per share" (which is after both interest expense and income taxes). Operating income per share is calculated by dividing operating income by the weighted average number of diluted shares of common stock. Operating loss per share is calculated by dividing operating loss by the weighted average number of basic shares of common stock due to antidilution. The company believes that metrics of operating income (loss) and operating income (loss) in relation to its four segments provide investors with a valuable measure of the performance of the company's continuing businesses because they highlight the portion of net income (loss) attributable to the core operations of the business. Income (loss) from continuing operations is the most directly comparable GAAP measure for operating income (loss) (and operating income before income taxes) and measures of operating income that exclude the effects of catastrophe losses and/or prior-year reserve development should not be misconstrued as substitutes for income (loss) from continuing operations or net income (loss) determined in accordance with GAAP. A reconciliation of operating income (loss) to income (loss) from continuing operations and net income (loss) for the relevant periods is included on page 22 of this presentation.

Operating return on average equity ("ROE") is a non-GAAP measure. See end note (6) for a detailed explanation of how this measure is calculated. Operating ROE is based on non-GAAP operating income (loss). In addition, the portion of shareholder equity attributed to unrealized appreciation (depreciation) on fixed maturity investments, net of tax, is excluded. The company believes this measure is helpful in that it provides insight to the capital used by, and results of, the continuing business exclusive of interest expense, income taxes, and other non-operating items. These measures should not be misconstrued as substitutes for GAAP ROE, which is based on net income (loss) and shareholders' equity of the entire company and without adjustments.

The company may provide measures of operating income (loss) and combined ratios that exclude the impact of catastrophe losses (which in all respects include prior accident year catastrophe loss development). A catastrophe is a severe loss, resulting from natural or manmade events, including, but is not limited to, hurricanes, tornados, windstorms, earthquakes, hail, severe winter weather, freeze events, fire, explosions, civil unrest and terrorism. Due to the unique characteristics of each catastrophe loss, there is an inherent inability to reasonably estimate the timing or loss amount in advance. The company believes a separate discussion excluding the effects of catastrophe losses is meaningful to understand the underlying trends and variability of earnings, loss and combined ratio results, among others.

Prior accident year reserve development, which can either be favorable or unfavorable, represents changes in the company's estimate of costs related to claims from prior years. Calendar year loss and loss adjustment expense ("LAE") ratios determined in accordance with GAAP, excluding prior accident year reserve development, are sometimes referred to as "current accident year loss ratios." The company believes a discussion of loss and combined ratios, excluding prior accident year reserve development, is helpful since it provides insight into both estimates of current accident year results and the accuracy of prior-year estimates.

The loss and combined ratios in accordance with GAAP are the most directly comparable GAAP measures for the loss and combined ratios calculated excluding the effects of catastrophe losses and/or prior-year reserve development. The presentation of loss and combined ratios calculated excluding the effects of catastrophe losses and/or prior-year reserve development should not be misconstrued as substitutes for the loss and/or combined ratios determined in accordance with GAAP.



End notes

(1) Combined ratio, excluding catastrophes, and current accident year combined ratio, excluding catastrophes, are non-GAAP measures. The combined ratio (which includes catastrophe losses and prior-year loss reserve development) is the most directly comparable GAAP measure. This and other non-GAAP measures are used throughout this document. See the disclosure on the use of this and other non-GAAP measures under the heading “Forward-Looking Statements and Non-GAAP Financial Measures.” A reconciliation of the GAAP combined ratio to the combined ratio, excluding catastrophes, and to the current accident year combined ratio, excluding catastrophes, is shown below.

	Three months ended June 30, 2023			
	Core Commercial	Specialty	Personal Lines	Total
Total combined ratio (GAAP)	95.8%	88.4%	138.0%	111.3%
Less: Catastrophe ratio	6.5%	2.8%	38.0%	18.5%
Combined ratio, excluding catastrophe losses (non-GAAP)	89.3%	85.6%	100.0%	92.8%
Less: Prior-year reserve development ratio	0.1 %	(3.7)%	1.6 %	(0.1)%
Current accident year combined ratio, excluding catastrophe losses (non-GAAP)	<u>89.2%</u>	<u>89.3%</u>	<u>98.4%</u>	<u>92.9%</u>
June 30, 2022				
Total combined ratio (GAAP)	92.6%	89.4%	103.2%	96.2%
Less: Catastrophe ratio	3.7%	2.2%	10.2%	6.0%
Combined ratio, excluding catastrophe losses (non-GAAP)	88.9%	87.2%	93.0%	90.2%
Less: Prior-year reserve development ratio	(0.6)%	(0.4)%	(1.0)%	(0.7)%
Current accident year combined ratio, excluding catastrophe losses (non-GAAP)	<u>89.5%</u>	<u>87.6%</u>	<u>94.0%</u>	<u>90.9%</u>
	Six months ended June 30, 2023			
	Core Commercial	Specialty	Personal Lines	Total
Total combined ratio (GAAP)	100.2%	89.2%	125.3 %	107.9%
Less: Catastrophe ratio	9.5%	4.8%	27.2 %	15.6%
Combined ratio, excluding catastrophe losses (non-GAAP)	90.7%	84.4%	98.1 %	92.3%
Less: Prior-year reserve development ratio	0.4 %	(4.7)%	1.8 %	(0.2)%
Current accident year combined ratio, excluding catastrophe losses (non-GAAP)	<u>90.3%</u>	<u>89.1%</u>	<u>96.3 %</u>	<u>92.5%</u>
June 30, 2022				
Total combined ratio (GAAP)	92.9%	88.6%	100.2 %	94.8%
Less: Catastrophe ratio	3.9%	2.5%	6.9 %	4.8%
Combined ratio, excluding catastrophe losses (non-GAAP)	89.0%	86.1%	93.3 %	90.0%
Less: Prior-year reserve development ratio	(1.0)%	(2.5)%	0.8 %	(0.6)%
Current accident year combined ratio, excluding catastrophe losses (non-GAAP)	<u>90.0%</u>	<u>88.6%</u>	<u>92.5 %</u>	<u>90.6%</u>



End notes continued

(2) Renewal price changes in Core Commercial and Specialty represent the average change in premium on renewed policies caused by the estimated net effect of base rate changes, discretionary pricing, specific inflationary changes or changes in policy level exposure or insured risks. Rate increases in Core Commercial and Specialty represent the average change in premium on renewed policies caused by the base rate changes, discretionary pricing, and inflation, excluding the impact of changes in policy level exposure or insured risks. Renewal price change in Personal Lines represents the average change in premium on policies charged at renewal caused by the net effects of filed rate, inflation adjustments or other changes in policy level exposure or insured risks, regardless of whether or not the policies are retained for the duration of their contractual terms. Rate change in Personal Lines is the estimated cumulative premium effect of approved rate actions applied to policies at renewal, regardless of whether or not policies are actually renewed. Accordingly, rate changes do not represent actual increases or decreases realized by the company. Personal Lines rate changes do not include inflation or changes in policy level exposure or insured risks.

(3) Current accident year loss and LAE ratio, excluding catastrophe losses, is a non-GAAP measure, which is equal to the loss and LAE ratio ("loss ratio"), excluding prior-year reserve development and catastrophe losses. The loss ratio (which includes losses, LAE, catastrophe losses and prior-year loss reserve development) is the most directly comparable GAAP measure. A reconciliation of the GAAP loss ratio to the current accident year loss and LAE ratio, excluding catastrophe losses is shown below.

Three months ended June 30, 2023						
	Core Commercial	Specialty	Personal Auto	Home & Other	Personal Lines	Total
Total loss and LAE ratio (GAAP)	62.8 %	53.1 %	84.3 %	151.6 %	112.1 %	80.7 %
Less:						
Prior-year reserve development ratio	0.1 %	(3.7)%	1.5 %	1.8 %	1.6 %	(0.1)%
Catastrophe ratio	6.5 %	2.8 %	3.7 %	87.0 %	38.0 %	18.5 %
Current accident year loss and LAE ratio, excluding catastrophes (non-GAAP)	56.2 %	54.0 %	79.1 %	62.8 %	72.5 %	62.3 %
June 30, 2022						
Total loss and LAE ratio (GAAP)	60.1 %	54.1 %	72.0 %	83.4 %	76.5 %	65.4 %
Less:						
Prior-year reserve development ratio	(0.6)%	(0.4)%	(0.9)%	(1.2)%	(1.0)%	(0.7)%
Catastrophe ratio	3.7 %	2.2 %	0.9 %	24.4 %	10.2 %	6.0 %
Current accident year loss and LAE ratio, excluding catastrophes (non-GAAP)	57.0 %	52.3 %	72.0 %	60.2 %	67.3 %	60.1 %
Six months ended June 30, 2023						
	Core Commercial	Specialty	Personal Auto	Home & Other	Personal Lines	Total
Total loss and LAE ratio (GAAP)	67.3 %	53.9 %	81.9 %	124.2 %	99.3 %	77.3 %
Less:						
Prior-year reserve development ratio	0.4 %	(4.7)%	1.9 %	1.7 %	1.8 %	(0.2)%
Catastrophe ratio	9.5 %	4.8 %	2.4 %	62.6 %	27.2 %	15.6 %
Current accident year loss and LAE ratio, excluding catastrophes (non-GAAP)	57.4 %	53.8 %	77.6 %	59.9 %	70.3 %	61.9 %
June 30, 2022						
Total loss and LAE ratio (GAAP)	60.2 %	53.2 %	71.2 %	76.5 %	73.3 %	63.8 %
Less:						
Prior-year reserve development ratio	(1.0)%	(2.5)%	(0.5)%	2.8 %	0.8 %	(0.6)%
Catastrophe ratio	3.9 %	2.5 %	0.4 %	17.0 %	6.9 %	4.8 %
Current accident year loss and LAE ratio, excluding catastrophes (non-GAAP)	57.3 %	53.2 %	71.3 %	56.7 %	65.6 %	59.6 %



End notes continued

(4) Operating income (loss) and operating income (loss) per diluted (basic) share are non-GAAP measures. The following table provides the reconciliation of operating income (loss) and operating income (loss) per diluted (basic) share to the most directly comparable GAAP measures, income (loss) from continuing operations and income (loss) from continuing operations per diluted (basic) share, respectively, which are reconciled to net income (loss) and net income (loss) per diluted (basic) share, respectively.

The Hanover Insurance Group, Inc.								
Three months ended June 30				Six months ended June 30				
2023		2022		2023		2022		
\$	Per Share*	\$	Per Share	\$	Per Share*	\$	Per Share	
Amount	Amount	Amount	(Diluted)	Amount	Amount	Amount	(Diluted)	
(\$ in millions, except per share data)								
Operating income (loss)								
Core Commercial	\$ 60.1		\$ 66.9		\$ 71.3		\$ 134.4	
Specialty	54.4		45.2		102.7		95.2	
Personal Lines	(194.1)		2.8		(240.7)		39.1	
Other	0.2		0.1		0.5		0.7	
Total	(79.4)		115.0		(66.2)		269.4	
Interest expense	(8.6)		(8.5)		(17.1)		(17.0)	
Operating income (loss) before income taxes	(88.0)	\$ (2.46)	106.5	\$ 2.94	(83.3)	\$ (2.33)	252.4	\$ 6.98
Income tax benefit (expense) on operating income (loss)	19.7	0.55	(22.6)	(0.62)	19.6	0.55	(50.8)	(1.40)
Operating income (loss) after income taxes	(68.3)	(1.91)	83.9	2.32	(63.7)	(1.78)	201.6	5.58
Non-operating items:								
Net realized gains (losses) from sales and other	0.1	-	(19.2)	(0.53)	(1.0)	(0.04)	(16.2)	(0.45)
Net change in fair value of equity securities	(1.1)	(0.03)	(59.0)	(1.63)	(8.2)	(0.23)	(77.0)	(2.13)
Impairments on investments:								
Credit-related impairments	(1.7)	(0.05)	0.5	0.01	(6.2)	(0.17)	(0.1)	-
Losses on intent to sell securities	-	-	(0.2)	-	(10.3)	(0.29)	(0.5)	(0.02)
	(1.7)	(0.05)	0.3	0.01	(16.5)	(0.46)	(0.6)	(0.02)
Other non-operating items	-	-	(0.4)	(0.01)	0.8	0.03	(0.4)	(0.01)
Income tax benefit on non-operating items	1.0	0.03	17.2	0.47	6.6	0.18	20.7	0.58
Income (loss) from continuing operations, net of taxes	(70.0)	(1.96)	22.8	0.63	(82.0)	(2.30)	128.1	3.55
Discontinued operations (net of taxes):								
Income from discontinued Chaucer business	0.8	0.02	-	-	0.8	0.03	-	-
Loss from discontinued life business	-	-	(0.1)	-	-	-	(0.5)	(0.02)
Net income (loss)	<u>\$ (69.2)</u>	<u>\$ (1.94)</u>	<u>\$ 22.7</u>	<u>\$ 0.63</u>	<u>\$ (81.2)</u>	<u>\$ (2.27)</u>	<u>\$ 127.6</u>	<u>\$ 3.53</u>
Dilutive weighted average shares outstanding		36.0		36.1		36.1		36.1
Basic weighted average shares outstanding		35.7		35.6		35.7		35.6

*Per share data is calculated using basic shares outstanding due to antidilution.



End notes continued

(5) Book value per share, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, is a non-GAAP measure. Book value per share is the most directly comparable GAAP measure and is reconciled in the table below.

	Period ended	
	June 30 2022	June 30 2023
Book value per share	\$ 72.33	\$ 62.62
Less: Net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, per share	<u>(12.89)</u>	<u>(17.06)</u>
Book value per share, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	\$ 85.22	\$ 79.68



End notes continued

(6) Operating return on average equity ("operating ROE") is a non-GAAP measure. Operating ROE is calculated by dividing annualized operating income (loss) after tax for the applicable period (see end note (4)), by average shareholders' equity, excluding unrealized appreciation (depreciation) on fixed maturity investments, net of tax, for the period presented. Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, is also a non-GAAP measure. Total shareholders' equity is the most directly comparable GAAP measure and is reconciled below. For the calculation of operating ROE, the average of beginning and ending shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, is used for the period as shown in the table below.

(\$ in millions)	Three months ended		Six months ended	
	June 30		June 30	
	2022	2023	2022	2023
<i>Net Income (Loss) ROE</i>				
Net income (loss) (GAAP)	\$ 22.7	\$ (69.2)	\$ 127.6	\$ (81.2)
Annualized net income (loss)*	90.8	(276.8)	255.2	(162.4)
Average shareholders' equity	2,703.6	2,313.5	2,847.7	\$ 2,320.2
Net income (loss) return on equity	3.4 %	(12.0)%	9.0 %	(7.0)%
<i>Operating Income (Loss) ROE</i>				
Operating income (loss) after income taxes	\$ 83.9	\$ (68.3)	\$ 201.6	\$ (63.7)
Annualized operating income (loss), net of tax* (end note (4))	335.6	(273.2)	403.2	(127.4)
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	3,033.8	2,891.1	3,010.5	2,917.7
Operating income (loss) return on equity	11.1 %	(9.4)%	13.4 %	(4.4)%

*For three months ended June 30, 2022, and 2023, annualized net income (loss) and operating income (loss) after income taxes is calculated by multiplying three months ended net income (loss) and operating income (loss) after income taxes, respectively, by 4. For six months ended June 30, 2022, and 2023, annualized net income (loss) and operating income (loss) after income taxes is calculated by multiplying six months ended net income (loss) and operating income (loss) after income taxes, respectively, by 2.

(\$ in millions)	Period Ended						
	December 31 2021	March 31 2022	June 30 2022	September 30 2022	December 31 2022	March 31 2023	June 30 2023
Total shareholders' equity (GAAP)	\$ 3,136.0	\$ 2,830.9	\$ 2,576.2	\$ 2,304.9	\$ 2,333.7	\$ 2,389.0	\$ 2,237.9
Less: net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	171.9	(201.1)	(459.3)	(702.3)	(637.4)	(545.2)	(610.0)
Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	\$ 2,964.1	\$ 3,032.0	\$ 3,035.5	\$ 3,007.2	\$ 2,971.1	\$ 2,934.2	\$ 2,847.9
Quarter-to-date Averages							
Average shareholders' equity (GAAP)			\$ 2,703.6				\$ 2,313.5
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax			\$ 3,033.8				\$ 2,891.1
Year-to-date Averages							
Average shareholders' equity (GAAP)			\$ 2,847.7				\$ 2,320.2
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax			\$ 3,010.5				\$ 2,917.7

(7) Here, and later in this document, the expense ratio is reduced by installment and other fee revenues for purposes of the ratio calculation.