



The Hanover Insurance Group, Inc.

First Quarter 2023 Results May 3, 2023

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



First Quarter 2023 Operating Highlights

- Combined ratio of 104.4%; combined ratio, excluding catastrophes⁽¹⁾, of 91.7%
- Catastrophe losses of \$175.0 million, or 12.7 points of the combined ratio, driven by severe freeze events and widespread wind and tornadic activity
- Net premiums written increase of 8.3%*, with contributions from each segment
- Renewal price change⁽²⁾ of 11.5% in Core Commercial, 12.6% in Specialty, as well as 12.7% in Personal Lines, highlighted by homeowners renewal price change of 18.9%
- Rate increases⁽²⁾ of 7.8% in Core Commercial, 7.4% in Specialty and 7.6% in Personal Lines
- Current accident year loss and loss adjustment expense (LAE) ratio, excluding catastrophes⁽³⁾, of 61.2%, was generally in line with the company's expectation for the first quarter of 2023
- Net investment income of \$78.7 million, up 2.3% from the prior-year quarter, driven by higher bond reinvestment rates and continued investment of operational cashflows, partially offset by lower partnership income
- Book value per share of \$66.89, up 2.0% from December 31, 2022, primarily driven by an increase in the fair value of fixed maturity investments

*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 press release.



Consolidated Financial Results

(\$ in millions, except per share amounts)

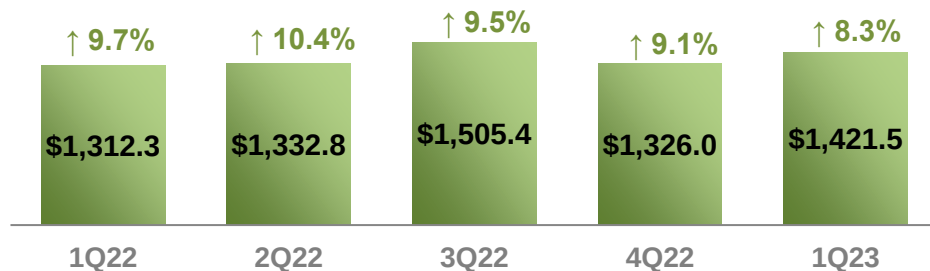
	Three months ended	
	March 31, 2022	March 31, 2023
Net income (loss)	\$104.9	(\$12.0)
<i>Per diluted/(basic) share</i>	\$2.90	(\$0.34)
Operating income before interest expense and income taxes ⁽⁴⁾	\$154.4	\$13.2
Operating income after income taxes	\$117.7	\$4.6
<i>Per diluted share</i>	\$3.26	\$0.13
Book value per share	\$79.53	\$66.89
<i>Book value per share, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax⁽⁵⁾</i>	\$85.17	\$82.16
Shareholders' equity	\$2,830.9	\$2,389.0
Debt	\$781.8	\$782.6
Total capital	\$3,612.7	\$3,171.6
Debt/total capital	21.6%	24.7%
Total assets	\$13,847.7	\$14,091.7
Net income (loss) return on average equity ⁽⁶⁾	14.1%	(2.0)%
Operating income return on average equity ⁽⁶⁾	15.7%	0.6 %



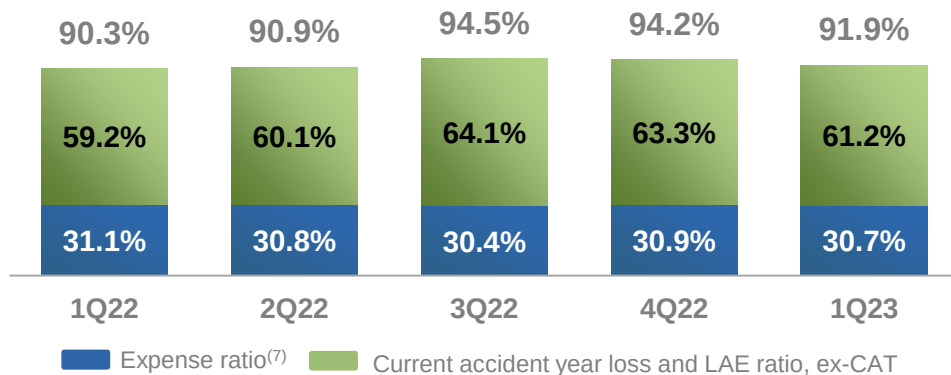
Solid Operating Results

(\$ in millions)

Net Premiums Written and Growth



Current Accident Year Combined Ratio, Ex-CAT



- First quarter 2023 combined ratio of 104.4%, increased 11.0 points from the prior-year quarter, driven by catastrophe losses from severe freeze events in February and widespread wind and tornado activity in mid-to-late March
- Current accident year combined ratio, ex-CAT, increased 1.6 points from the prior-year quarter, but was generally in line with the company's expectations for the first quarter of 2023
- Net favorable prior-year reserve development, excluding catastrophes, of \$3.0 million, or 0.2 points, was driven by Specialty and workers' compensation in Core Commercial, partially offset by unfavorable development in Personal Lines and commercial auto
- Expense ratio improved 40-basis-points from the prior-year quarter, driven by fixed cost leverage from premium growth and reduced incentive costs, and is in line with the company's full year target
- Net premiums written increased 8.3%, with contributions from each segment

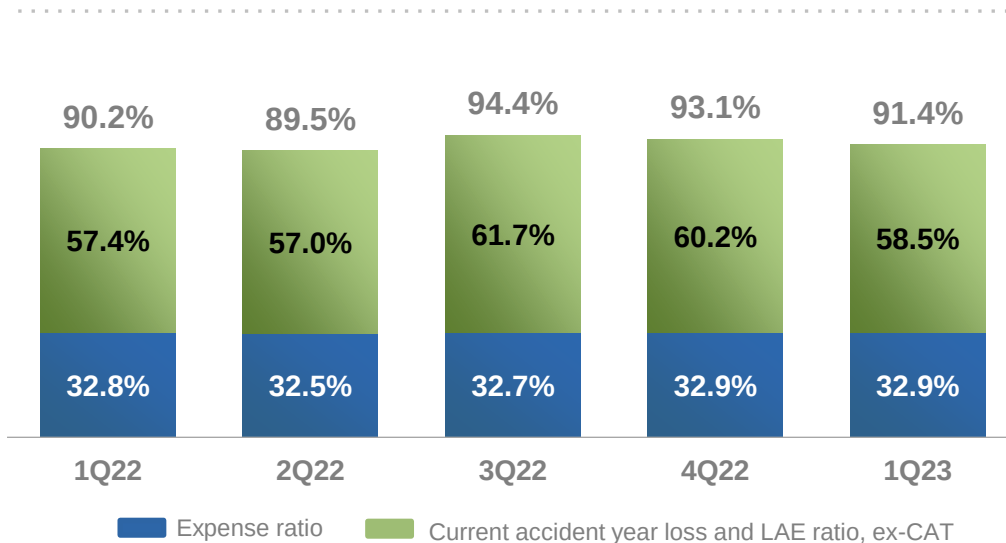


Core Commercial Underwriting Highlights

(\$ in millions)	Three months ended March 31	
	2022	2023
Net premiums written	\$526.6	\$565.3
Growth	9.6%	7.3%
Net premiums earned	\$474.7	\$507.4
Catastrophe ratio	4.1%	12.6%
Prior-year development ratio	(1.3)%	0.7 %
Expense ratio	32.8%	32.9%
Combined ratio	93.0%	104.7%
Combined ratio, ex-CAT	88.9%	92.1%

- First quarter 2023 current accident year combined ratio, ex-CAT, of 91.4%, increased 1.2 points from the prior-year quarter
- Current accident year loss and LAE ratio, ex-CAT, increased 1.1 points from the prior-year quarter, primarily driven by higher property loss severity in commercial auto due to inflationary pressures
 - Relative to the company's expectation, the underlying loss ratio in Core Commercial was in line

Current Accident Year Combined Ratio, Ex-CAT



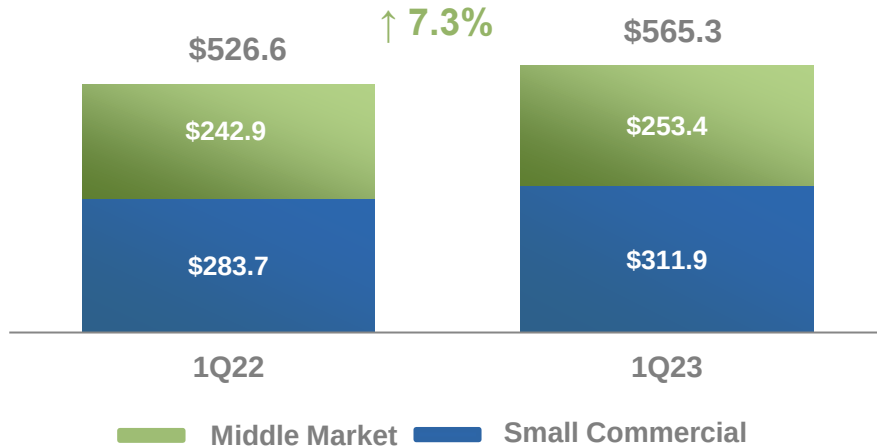
- Net unfavorable prior-year reserve development, excluding catastrophes, of \$3.5 million, or 0.7 points, driven primarily by commercial auto, nearly offset by favorable development in workers' compensation



Core Commercial Growth Highlights

(\$ in millions)

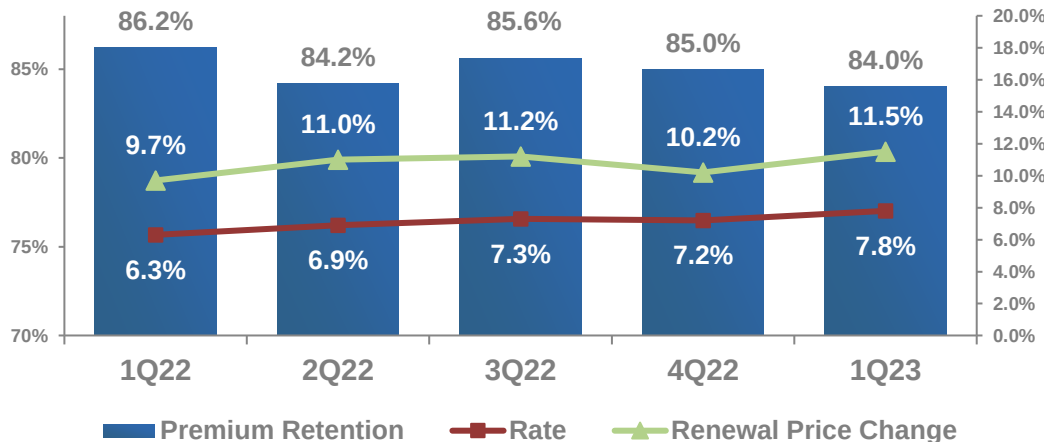
Net Premiums Written and Growth



- Net premiums written growth of 7.3% in the first quarter of 2023, driven by:
 - Growth of 9.9% in small commercial, propelled by strong pricing
 - Growth of 4.3% in middle market, reflecting the continued focus on portfolio optimization and enhanced pricing
- Accelerated renewal price increases of 11.5%, driven by insurance-to-value and other exposure adjustments, with further improvement expected through 2023
 - Achieved healthy rate increases of 7.8% in the quarter

Retention*

Rate/RPC



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

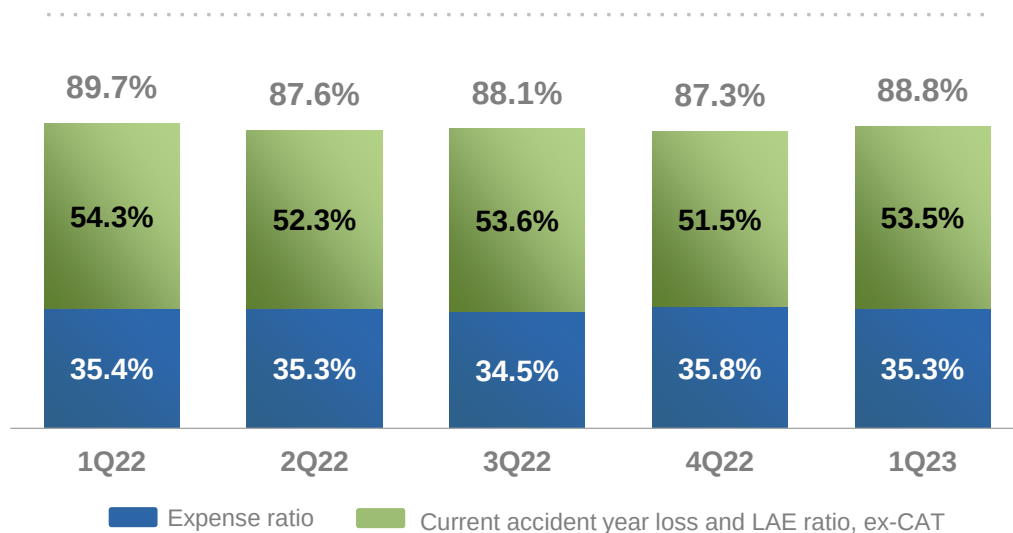


Specialty Underwriting Highlights

(\$ in millions)	Three months ended March 31	
	2022	2023
Net premiums written	\$302.8	\$324.3
<i>Growth</i>	9.4%	7.1%
Net premiums earned	\$283.8	\$311.7
Catastrophe ratio	2.7%	6.9%
Prior-year development ratio	(4.7)%	(5.8)%
Expense ratio	35.4%	35.3%
Combined ratio	87.7%	89.9%
Combined ratio, ex-CAT	85.0%	83.0%

- First quarter 2023 current accident year combined ratio, ex-CAT, of 88.8%, improved 0.9 points from the prior-year quarter
- Current accident year loss and LAE ratio, ex-CAT, decreased 0.8 points from the prior-year quarter, primarily driven by lower than expected losses in marine, as well as the benefit of rate increases earning in
- Net favorable prior-year reserve development, excluding catastrophes, of \$18.1 million, or 5.8 points, driven primarily by lower than expected losses in claims-made management liability, and to a lesser extent, healthcare and surety businesses

Current Accident Year Combined Ratio, Ex-CAT

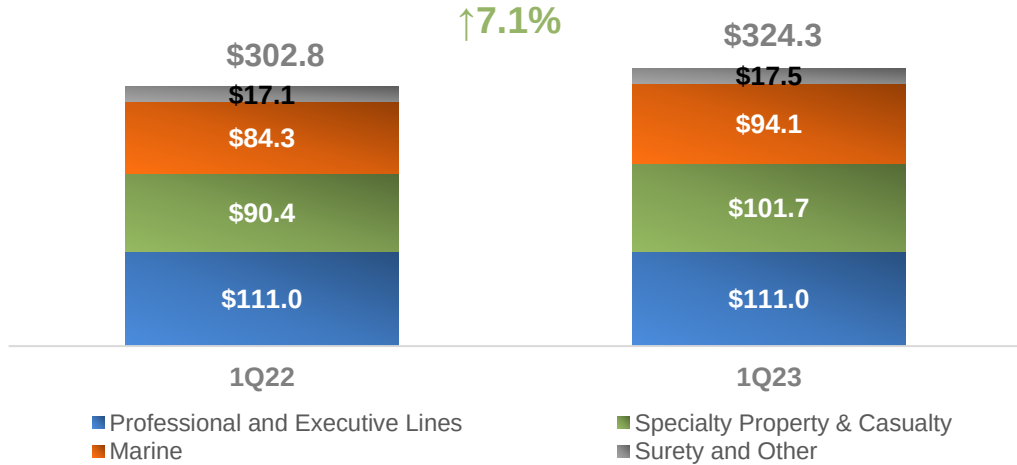




Specialty Growth Highlights

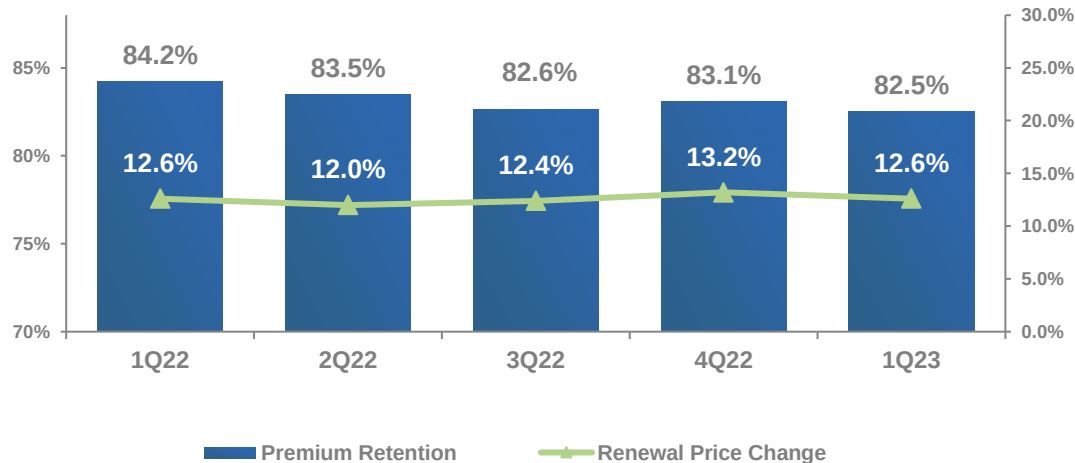
(\$ in millions)

Net Premiums Written and Growth



- Net premiums written growth of 7.1% in the first quarter 2023, driven by strong pricing and ongoing traction to gain market share supported by a prudent growth strategy
- Renewal price increases remain healthy at 12.6%, driven by property increases of 16.8%
 - Robust rate increases of 7.4% in the quarter support strong profitability

Retention*



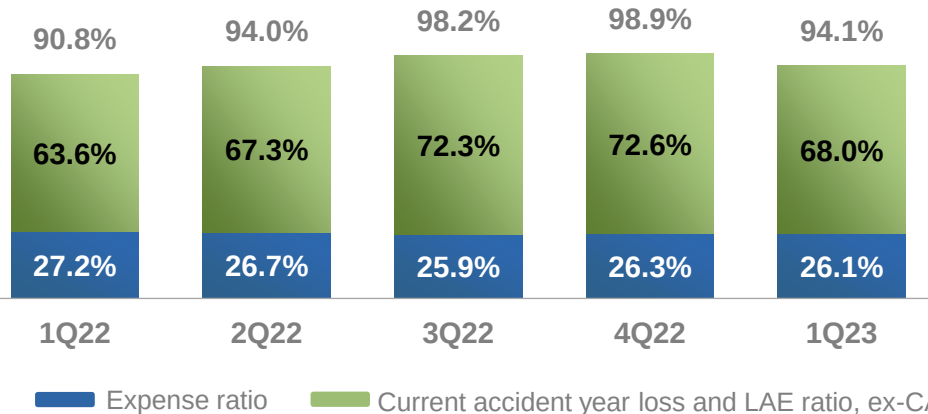
RPC



Personal Lines Underwriting Highlights

(\$ in millions)	Three months ended March 31	
	2022	2023
Net premiums written	\$482.9	\$531.9
Growth	10.1%	10.1%
Net premiums earned	\$505.3	\$560.9
Catastrophe ratio	3.6%	16.0%
Prior-year development ratio	2.7 %	2.1 %
Expense ratio	27.2%	26.1%
Combined ratio	97.1%	112.2%
Combined ratio, ex-CAT	93.5%	96.2%

Current Accident Year Combined Ratio, Ex-CAT



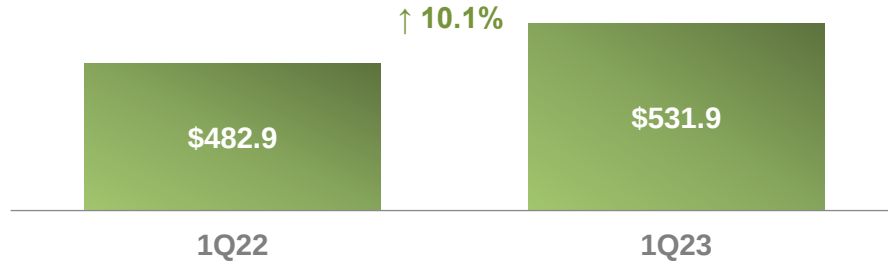
- First quarter 2023 current accident year combined ratio, ex-CAT, of 94.1%, increased 3.3 points from the prior-year quarter, primarily due to the continuing impact of inflation
- Current accident year loss and LAE ratio, ex-CAT, increased 4.4 points from the prior-year quarter, primarily driven by continued inflationary pressure on auto and homeowners property, as well as higher loss frequency in personal auto compared to the lower level of claims experienced in the first quarter of 2022
 - Relative to the company's expectation, the underlying loss ratio in Personal Lines was approximately one point higher, primarily reflecting the higher cost of parts and labor in auto, as well as elevated large fire losses in home
- Net unfavorable prior-year reserve development, excluding catastrophes, of \$11.6 million, or 2.1 points, due in part to delayed reporting of third-party claims in property damage coverage, primarily from the second half of 2022



Personal Lines Growth Highlights

(\$ in millions)

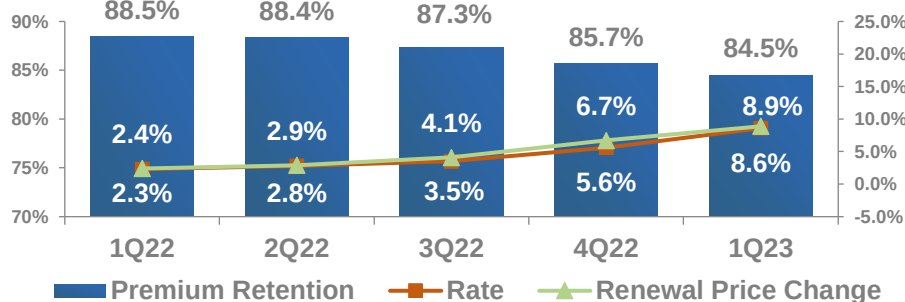
Net Premiums Written and Growth



Personal Auto

Retention**

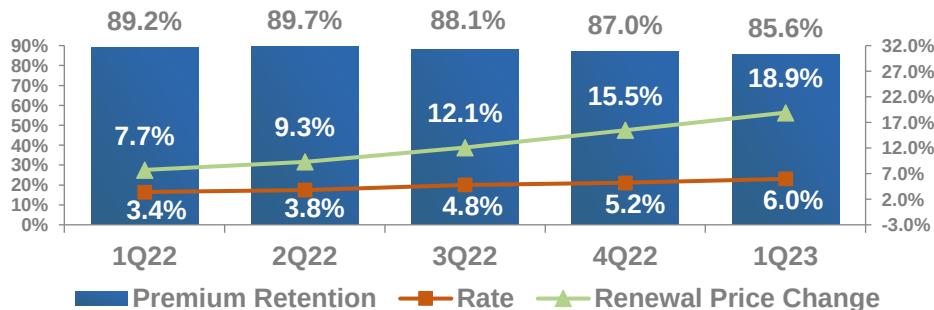
Rate/RPC



Homeowners

Retention**

Rate/RPC



- First quarter 2023 net premiums written growth of 10.1%, propelled by robust pricing increases
- Renewal price change* of 12.7% in Personal Lines, including 18.9% in homeowners and 8.9% in auto, slightly above the company's expectation
- Retention remains above 85%, underscoring the effectiveness of our account-focused strategy and the hard market in Personal Lines
- Further implementation of accelerated rate filings and exposure adjustments supported by the hard market are expected to result in:
 - Homeowners renewal price change* of approximately 20% for the remainder of the year, about two to three points above the company's original expectation
 - Personal auto renewal price change* of approximately 13% to 14% in the second half of the year, about two points above the company's original expectation

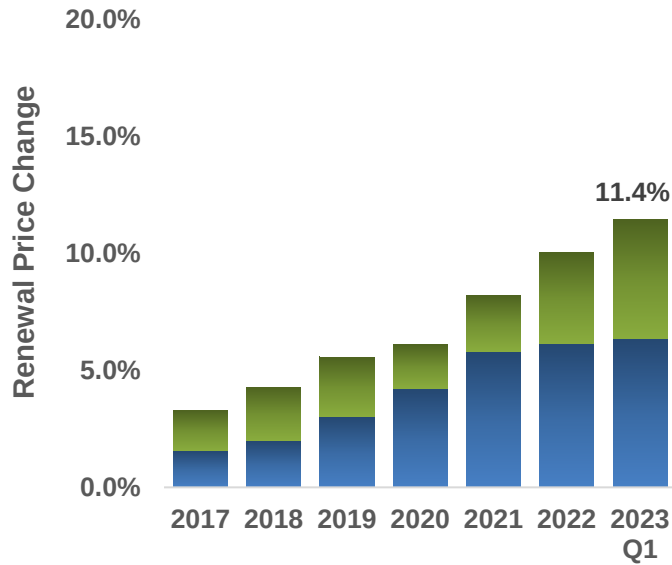
*A part of renewal price change is subject to regulatory approvals and competitive dynamics
 **Retention is defined as the ratio of net retained policies for the noted period to those policies available to renew over the same period and includes policies that were cancelled and rewritten.



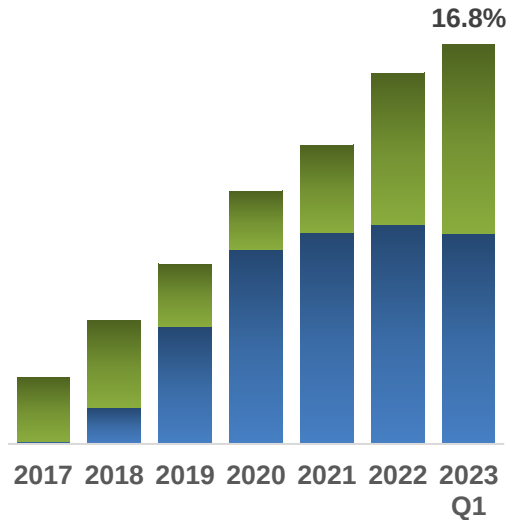
Successfully Executing on Pricing Levers

Achieving Highest Property Renewal Price Change in Years

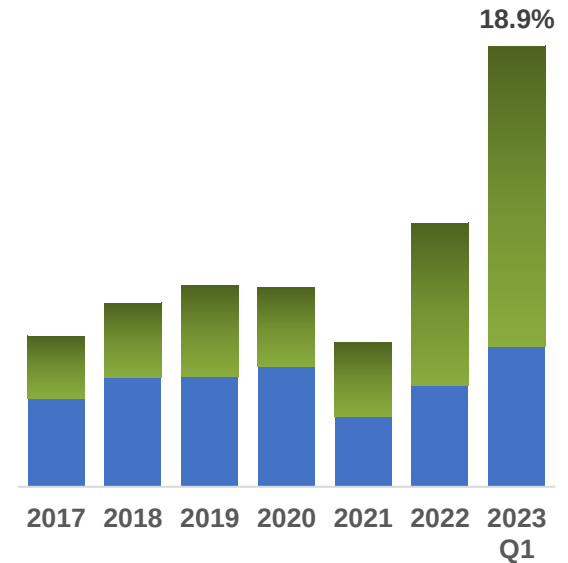
Core CL Property



Specialty Property Offerings



Homeowners



Components of Renewal Price Change

Rate

Exposure



Managing Catastrophe Trends

Deploying a broad set of tools to counter changing weather patterns

- Strong track record of proactively addressing and adapting our exposure to prevailing catastrophe trends over the last ten years, leading to:
 - Lower exposure to hurricanes and coastal risks
 - Much lower concentration and vulnerability to historically exposed tornado regions
 - Significantly more diversified book of business
- Continue to be diligent in addressing what appears to be emerging trends of more severe winter and convective storms through **three main levers**:

PRICING

- Accelerating property pricing through insurance-to-value and other exposure increases
- Market is receptive to higher rate increases and firmer terms and conditions to address increased property losses and reinsurance costs

UNDERWRITING

- Reviewing terms and conditions, carefully reshaping specific portfolios and utilizing deductibles
- Increasing usage of drones in underwriting

LOSS CONTROL & PREVENTION

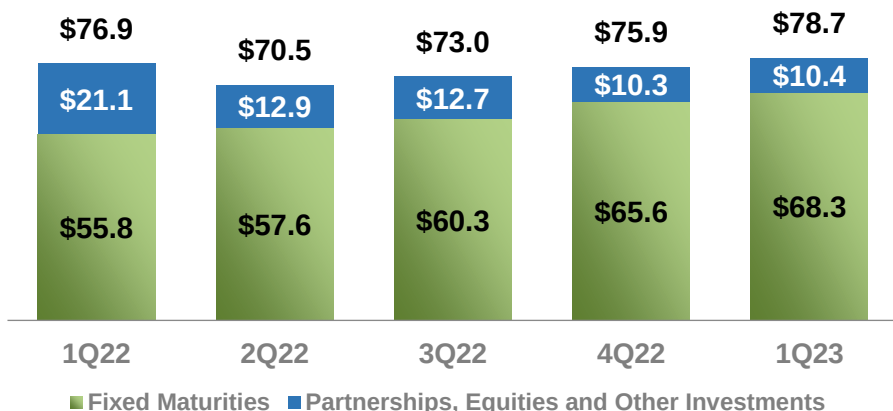
- Achieve deeper adoption of water and temperature sensors and other risk assessment/mitigation technologies
- Increasing use of infrared thermography and drones for property assessments
- Improving communication with customers/agents



Net Investment Income Trends

(\$ in millions)

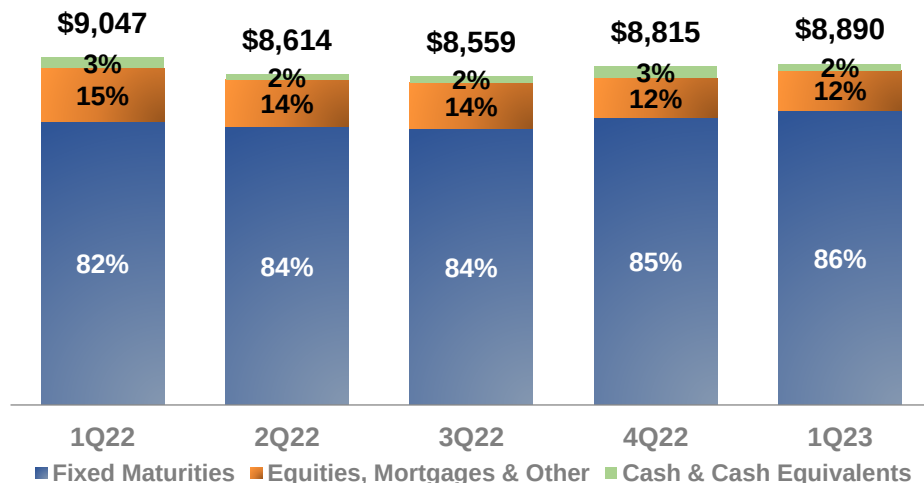
Net Investment Income*



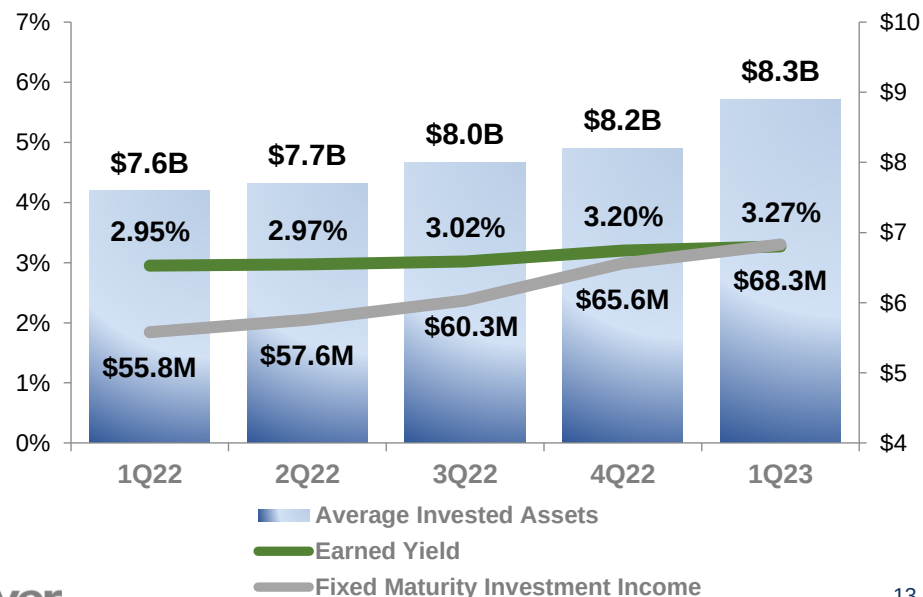
- Net investment income of \$78.7 million in the quarter, \$1.8 million higher than the prior-year quarter, helped by higher bond reinvestment rates and the continued investment of operational cashflows, partially offset by lower partnership income
- Expect higher interest rates to provide meaningful 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

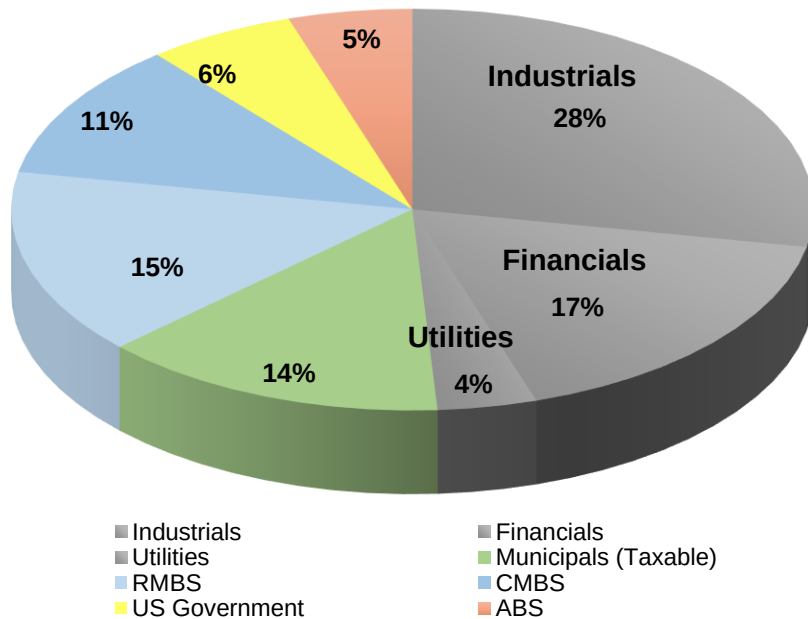


Investment Portfolio – Total Invested Assets and Cash of \$8.9 Billion

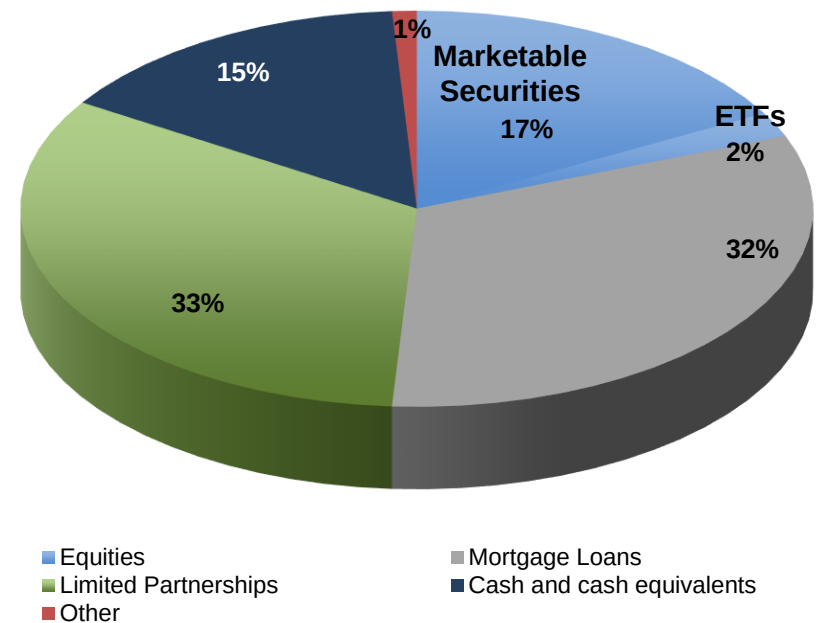
As of March 31, 2023

High quality, well-diversified investment portfolio

Fixed Maturities: \$7.7 Billion



Equities, Cash and Other: \$1.2 Billion



High-quality, well-laddered fixed income portfolio

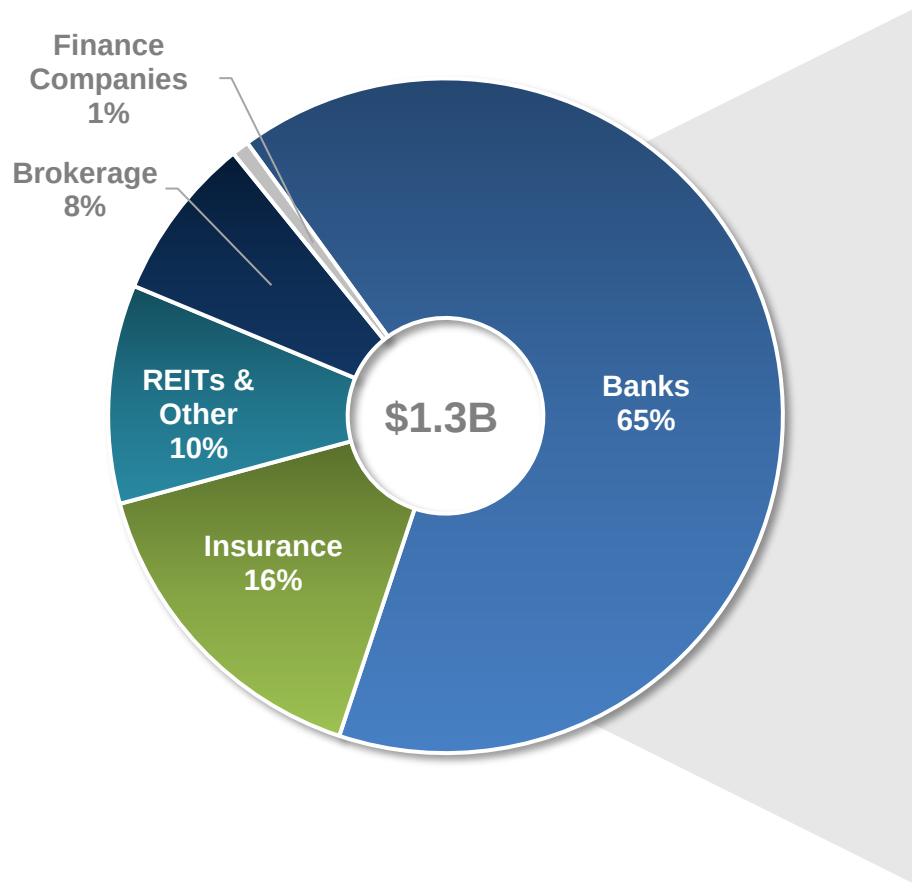
- 95% of fixed maturity securities are investment grade
- Weighted average quality: A+
- Duration: 4.2 years



Fixed Income Portfolio: Financials

As of March 31, 2023

Financials



\$864 million bank portfolio is comprised of highly rated banking institutions with an average rating of "A-"

	Market Value (\$M)	% of Invested Assets
Morgan Stanley	\$33.4	0.38%
Bank of New York Mellon	\$30.9	0.35%
Mitsubishi Financial Group	\$29.4	0.33%
US Bancorp	\$27.4	0.31%
Citizens Financial Group	\$26.7	0.30%
Capital One Financial	\$26.7	0.30%
JPMorgan Chase	\$26.1	0.29%
Goldman Sachs	\$25.7	0.29%
Westpac Banking	\$25.5	0.28%
Truist Financial	\$24.8	0.28%
<u>Total (Top 10)</u>	\$276.6	3.11%
<u>Total (All Bank Holdings)</u>	\$863.5	9.71%

NAIC 1	NAIC 2	NAIC 3 – 6
69%	29%	2%

~98% of the portfolio rated NAIC 1 or 2

Commercial Real Estate Fixed Income

	Carry Value (\$M)	% of Total Invested Assets
Commercial Mortgage-Backed Securities	\$835	~10%
Commercial Mortgage Loans	\$385	~4%

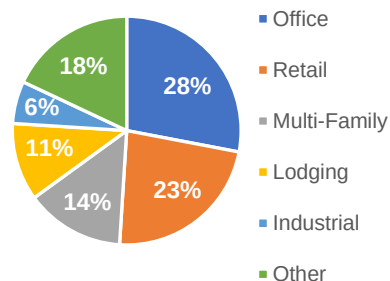
Commercial Mortgage Loans

- Average loan-to-value ratio of 58%
- Diversified by geographic area and property type

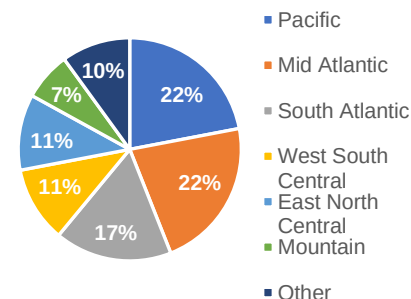
Commercial Mortgage-Backed Securities

- ~10% of total invested assets
- Average overall rating of “AAA”
- Significant structural protections from losses (credit enhancement)
- ~75% are vintage year 2019 or prior

CMBS Property Type



CMBS Geography



Diversified by property type, geography and vintage



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,” “expects,” “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 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 recent 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 (loss), as they are, to a certain extent, determined by interest rates, financial markets and the timing of sales. Operating income (loss) 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 (loss) before income taxes) and measures of operating income (loss) that exclude the effects of catastrophe losses and/or 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 23 of this presentation and in the Financial Supplement.

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 also 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, tornadoes, 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 March 31, 2023			
	Core Commercial	Specialty	Personal Lines	Total
Total combined ratio (GAAP)	104.7%	89.9%	112.2%	104.4%
Less: Catastrophe ratio	12.6%	6.9%	16.0%	12.7%
Combined ratio, excluding catastrophes (non-GAAP)	92.1%	83.0%	96.2%	91.7%
Less: Prior-year reserve development ratio	0.7%	(5.8)%	2.1%	(0.2)%
Current accident year combined ratio, excluding catastrophes (non-GAAP)	91.4%	88.8%	94.1%	91.9%
March 31, 2022				
Total combined ratio (GAAP)	93.0%	87.7%	97.1%	93.4%
Less: Catastrophe ratio	4.1%	2.7%	3.6%	3.6%
Combined ratio, excluding catastrophes (non-GAAP)	88.9%	85.0%	93.5%	89.8%
Less: Prior-year reserve development ratio	(1.3)%	(4.7)%	2.7%	(0.5)%
Current accident year combined ratio, excluding catastrophes (non-GAAP)	90.2%	89.7%	90.8%	90.3%

(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.



End notes continued

(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. The following is a reconciliation of the GAAP loss ratio to the current accident year loss and LAE ratio, excluding catastrophe losses:

Three months ended March 31, 2023				
	Core Commercial	Specialty	Personal Lines	Total
Total loss and LAE ratio	71.8%	54.6%	86.1%	73.7%
Less:				
Prior-year reserve development ratio	0.7%	(5.8)%	2.1%	(0.2)%
Catastrophe ratio	12.6%	6.9%	16.0%	12.7%
Current accident year loss and LAE ratio, excluding catastrophes	58.5%	53.5%	68.0%	61.2%
March 31, 2022				
Total loss and LAE ratio	60.2%	52.3%	69.9%	62.3%
Less:				
Prior-year reserve development ratio	(1.3)%	(4.7)%	2.7%	(0.5)%
Catastrophe ratio	4.1%	2.7%	3.6%	3.6%
Current accident year loss and LAE ratio, excluding catastrophes	57.4%	54.3%	63.6%	59.2%



The Hanover Insurance Group, Inc.				
	Three months ended March 31			
	2023		2022	
	\$		\$	Per Share
(\$ in millions, except per share data)	Amount	Per Share*	Amount	(Diluted)
Operating income (loss)				
Core Commercial	\$ 11.2		\$ 67.5	
Specialty	48.3		50.0	
Personal Lines	(46.6)		36.3	
Other	0.3		0.6	
Total	13.2		154.4	
Interest expense	(8.5)		(8.5)	
Operating income before income taxes	4.7	\$ 0.13	145.9	\$ 4.04
Income tax expense on operating income	(0.1)	-	(28.2)	(0.78)
Operating income after income taxes	4.6	0.13	117.7	3.26
Non-operating items:				
Net realized gains (losses) from sales and other	(1.1)	(0.03)	3.0	0.08
Net change in fair value of equity securities	(7.1)	(0.20)	(18.0)	(0.50)
Impairments on investments:				
Credit-related impairments	(4.5)	(0.13)	(0.6)	(0.01)
Losses on intent to sell securities	(10.3)	(0.29)	(0.3)	(0.01)
	(14.8)	(0.42)	(0.9)	(0.02)
Other non-operating items	0.8	0.02	-	-
Income tax benefit on non-operating items	5.6	0.16	3.5	0.09
Income (loss) from continuing operations, net of taxes	(12.0)	(0.34)	105.3	2.91
Discontinued operations (net of taxes):				
Loss from discontinued life businesses	-	-	(0.4)	(0.01)
Net income (loss)	\$ (12.0)	\$ (0.34)	\$ 104.9	\$ 2.90
Dilutive weighted average shares outstanding		36.1		36.1
Basic weighted average shares outstanding		35.6		35.5

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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	
	March 31 2022	March 31 2023
Book value per share	\$ 79.53	\$ 66.89
Less: Net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, per share	<u>(5.64)</u>	<u>(15.27)</u>
Book value per share, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	\$ 85.17	\$ 82.16



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 net 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	
	March 31 2022	March 31 2023
<i>Net Income (Loss) ROE</i>		
Net income (loss) (GAAP)	\$104.9	(12.0)
Annualized net income (loss)*	419.6	(48.0)
Average shareholders’ equity	2,983.5	2,361.4
Return on equity	14.1 %	(2.0)%
<i>Operating Income ROE</i>		
Operating income after income taxes	\$117.7	\$4.6
Annualized operating income, net of tax* (end note (4))	470.8	18.4
Average shareholders’ equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	2,998.1	2,952.7
Operating return on equity	15.7 %	0.6 %

*For three months ended March 31, 2022, and 2023, annualized net income (loss) and operating income after income taxes is calculated by multiplying three months ended net income (loss) and operating income after income taxes, respectively, by 4.

(\$ in millions)	Period Ended					
	December 31 2021	March 31 2022	June 30 2022	September 30 2022	December 31 2022	March 31 2023
Total shareholders’ equity (GAAP)	\$ 3,136.0	\$ 2,830.9	\$ 2,576.2	\$ 2,304.9	\$ 2,333.7	\$ 2,389.0
Less: net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	171.9	(201.1)	(459.3)	(702.3)	(637.4)	(545.2)
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
Average shareholders’ equity (GAAP)		\$ 2,983.5				\$ 2,361.4
Average shareholders’ equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax		\$ 2,998.1				\$ 2,952.7

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