The Hanover Insurance Group, Inc.

First Quarter 2019 Results

May 2, 2019

To be read in conjunction with the press release dated May 1, 2019 and conference call scheduled for May 2, 2019

Forward-Looking Statements

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," "projects," "forecasts," "potential," "should," "could," "continue," "outlook," 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 or projections that involve significant judgement, 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 or including both prior-year reserve development and/or catastrophe losses; catastrophe losses; growth of net investment income, net premiums written and/or net premiums earned; expense ratio; operating return on adjusted or unadjusted average equity; and/or the effective tax rate;
- Uses of capital, whether generated through normal business operations or a sale of an entity (including the remaining proceeds from the Chaucer sale), for share repurchases, special or ordinary cash dividends and/or business investments, among others;
- Variability of catastrophe losses due to risk concentrations, changes in weather patterns, terrorism 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" lines;
- 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, or other factors;
- Efforts to manage expenses, while allocating capital to business investment, which is at management's discretion;
- Mix improvement and pricing segmentation actions, among others, to grow businesses believed to be more profitable or reduce premiums attributable to products believed to be less profitable; offset long-term and/or short-term loss trends due to increased frequency; increased social inflation from a more litigious environment, increased property replacement costs, and/or social movements;
- The ability to generate growth in targeted segments through new agency appointments; rate increases, retention improvements or new business; expansion into new geographies; new product introductions; or otherwise; and
- Investment returns and the ability to increase new money yields, which are dependent on the macro-economic interest rate environment.

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. ("The Hanover") 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:

- Adverse claims experience, including those driven by large or increased frequency of catastrophe events (including terrorism) and severe weather;
- The uncertainty in estimating weather-related losses, and the limitations and assumptions used to model other property and casualty losses (particularly with respect to products with longer tails or involving emerging issues related to losses incurred as the result of new lines of business or reinsurance contracts and reinsurance recoverables), leading to potential adverse development of loss and loss adjustment expense reserves;
- Litigation and the possibility of adverse judicial decisions, including those which expand policy coverage beyond its intended scope or award "bad faith" or other non-contractual damages;
- The ability to increase or maintain insurance rates in line with anticipated loss costs;
- 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 our 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 advantages;

Forward-Looking Statements and Non-GAAP Financial Measures

Additional Risks and Uncertainties (Continued)

- The economic and macroeconomic environment, including inflation and interest rate fluctuations, which, among other things, could result in reductions in market values of fixed maturity investments;
- Adverse state and federal regulation, legislative and/or regulatory actions (including efforts currently underway to revise Michigan's automobile personal injury protection and catastrophic reinsurance system);
- Financial ratings actions, in particular downgrades to our ratings;
- Operational and technology risks and evolving technological and product innovation, including the risk of cyber-security attacks or breaches on the company's systems or resulting in claim payments;
- Uncertainties in estimating indemnification liabilities recorded in conjunction with obligations undertaken in connection with the sale of various businesses and discontinued operations; and
- The ability to collect from reinsurers, and the performance of the discontinued voluntary pools business (including those in the Other segment or in Discontinued Operations).
- 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. We do not undertake the responsibility to update or revise our forward-looking statements.

Non-GAAP Financial Measures

The discussion in this presentation and the associated conference call of The Hanover's financial performance includes reference to certain financial measures that are not derived from generally accepted accounting principles, or GAAP, such as operating income, operating income before taxes (and interest expense), combined ratios and loss ratios, excluding catastrophes and/or prior-year development and accident year loss ratios, excluding catastrophes. A reconciliation of non-GAAP measures to the closest GAAP measure is included in the end notes to this presentation, the press release dated May 1, 2019 or the financial supplement, which are posted on our website. The reconciliation of current accident year loss ratio and combined ratio excluding catastrophes to the most directly comparable GAAP measure, total loss ratio and combined ratio, is found in the end notes on the final pages of this document. Operating income (operating income per diluted share) is a non-GAAP measure. It is defined as net income excluding the after-tax impact of net realized and unrealized investment gains and losses, as well as results from discontinued operations divided by, in the case of per share reported figures, the average number of diluted shares of common stock. In referral to one of the company's three segments, operating income is segment income before taxes. Operating return on equity ("ROE") and adjusted operating ROE are non-GAAP measures. See end note (6) for a detailed explanation of how these measures are calculated. Operating ROE is based on non-GAAP operating income, and adjusted operating ROE is a measure of operating income as a return on only that portion of shareholders' equity attributable to the continuing business. For measurement periods prior to the close of the Chaucer transaction, which occurred on December 28, 2018, "equity attributable to Chaucer", which was reported as discontinued operations, is excluded. For measurement periods post-closing, "the un-deployed equity", and related net investment income, is excluded. This eliminates the dilutive impact of any excess capital that would have been included in "equity attributable to Chaucer" and "the un-deployed equity" for the corresponding periods presented. Had the actual Chaucer equity for all prior periods been used, the adjusted operating ROE for the continuing businesses for each of the reported periods would have been higher than illustrated in this disclosure. Management believes that these measures are helpful to investors and financial analysts in that they provide insight to the capital used by, and results of, continuing operations exclusive of interest, taxes and other non-operating items. These measures should not be construed as substitutes for GAAP ROE, which is based on net income and shareholders' equity of the entire company and without adjustments. The definition of other financial measures and terms can be found in the 2018 Annual Report on pages 72-74.

First Quarter 2019

Net Income and Operating Income[1] of $2.97 and $1.96 per Diluted Share, Respectively; Combined Ratio of 95.8%; Combined Ratio, Excluding Catastrophes[2], of 92.2%

- Catastrophe losses of $39.4 million, or 3.6 points, including current year losses of $52.9 million, or 4.8 points, and favorable development on prior-year catastrophes of $13.5 million, or 1.2 points
- Net premiums written increase of 2.7%*, which reflects growth in more profitable segments, partially offset by specific underwriting initiatives
- Continued price increases in both Commercial and Personal Lines, with an increase of 5.2% in Core Commercial[3] Lines and 5.0% in Personal Lines[4]
- Net investment income of $70.2 million, up 6.4% from the prior-year quarter, driven by the investment of cash flows from operations and deployable equity related to the sale of Chaucer
- Book value per share of $71.95, up 3.1% from December 31, 2018

(1) See information about this and other non-GAAP measures and definitions used throughout this presentation on the final pages of this document.

* Unless otherwise stated, net premiums written growth and other growth comparisons are to the prior-year quarter

Consolidated Financial Results Snapshot

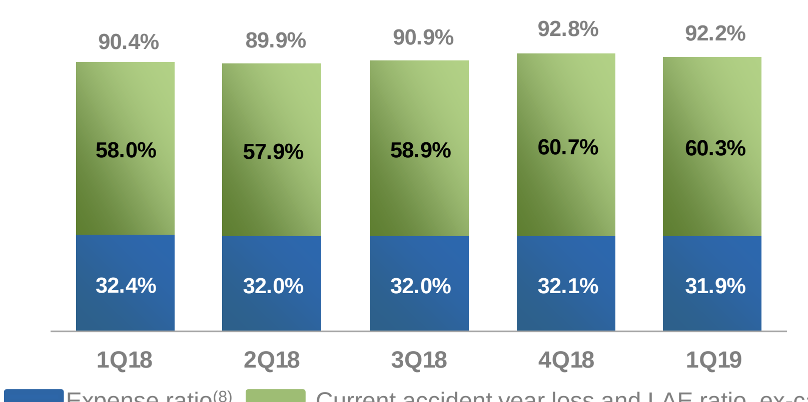
($ in millions, *except per share amounts)*	Three Months ended March 31, 2018	Three Months ended March 31, 2019
Net income per share	*$1.57*	*$2.97*
Operating income after taxes per share	*$1.54*	*$1.96*
Book value per share	*$68.56*	*$71.95*
Shareholders' equity	$2,913	$2,927
Debt	$787	$653
Total capital	$3,700	$3,580
Debt/Total Capital	21.3%	18.2%
Total assets	$15,334	$11,983
Adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and pre-sale, equity attributable to Chaucer; or post-close, un-deployed equity(5)	$2,298	$2,430
Operating income after taxes	$66.1	$80.7
Net income return on average equity	9.2%	16.6%
Operating return on average equity(6)	9.3%	11.6%
Adjusted operating return on average equity(6)	11.8%	13.1%

Strong Operating Results

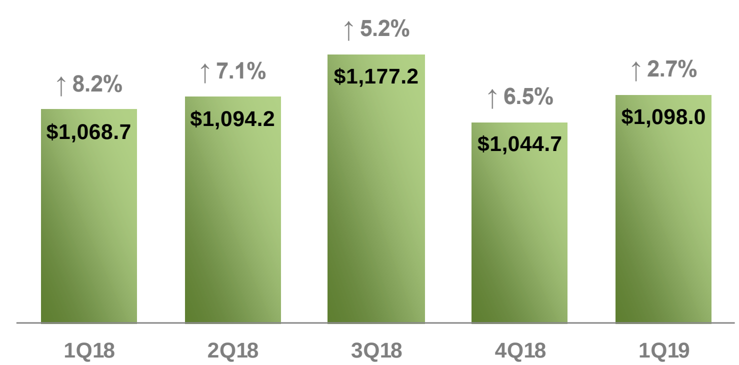
($ in millions)	Three months ended March 31 2018	2019
Net premiums written	$1,068.7	$1,098.0
Growth	8.2%	2.7%
Net premiums earned	$1,042.5	$1,095.1
Combined ratio	96.6%	95.8%
Combined ratio, ex-cat	90.4%	92.2%
Current accident year combined ratio, ex-cat(7)	90.4%	92.2%

- Combined ratio of 95.8%, including 3.6 points of catastrophe losses, including:
  - Current accident year catastrophe loss ratio of 4.8% driven by winter weather events in the Midwest and Northeast
  - $13.5 million, or 1.2%, of favorable catastrophe reserve development reflecting the sale of subrogation rights related to certain 2017 and 2018 California wildfire losses
- Favorable prior-year reserve development in Commercial Lines largely offset by unfavorable development in Personal Lines
- Current accident year loss and LAE ratio, ex-cats, of 60.3%, an increase of 2.3 points from prior-year quarter, driven by:
  - Large loss activity in specialty industrial property business
  - The timing of 2018 loss selections and lower than usual winter weather in Q1 2018
- Expense ratio of 31.9%, an improvement of 0.5 points from the prior-year quarter, primarily due to fixed cost leverage from premium growth
- Top-line growth of 2.7%, driven by:
  - Strong growth in more profitable businesses
  - Partially offset by specific underwriting initiatives
  - Growth of 4.3%, excluding these initiatives(10)

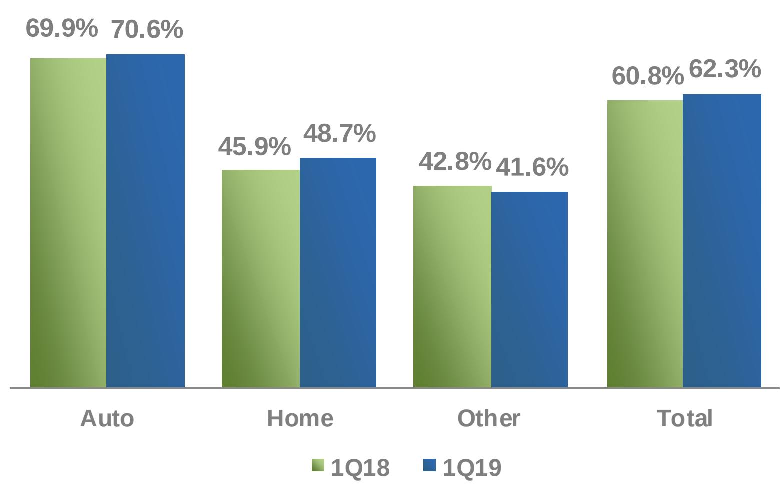
Current Accident Year Combined Ratio, Ex-Cat

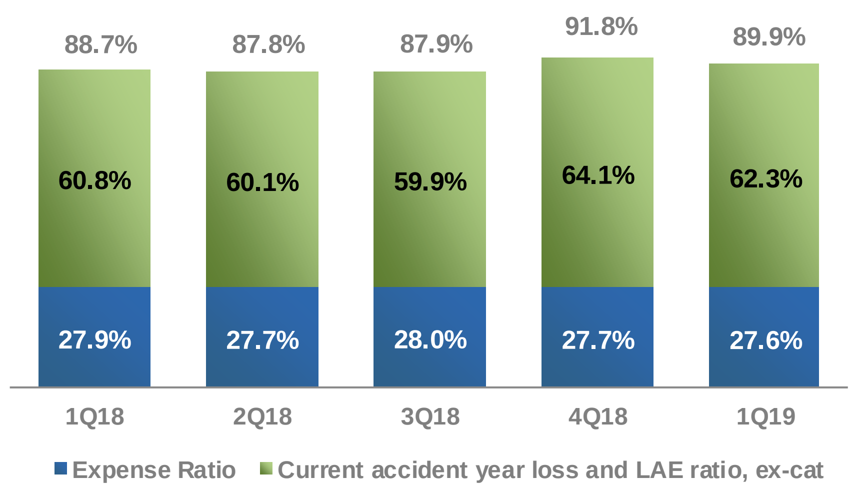


Net Premiums Written and Growth ($ in millions)



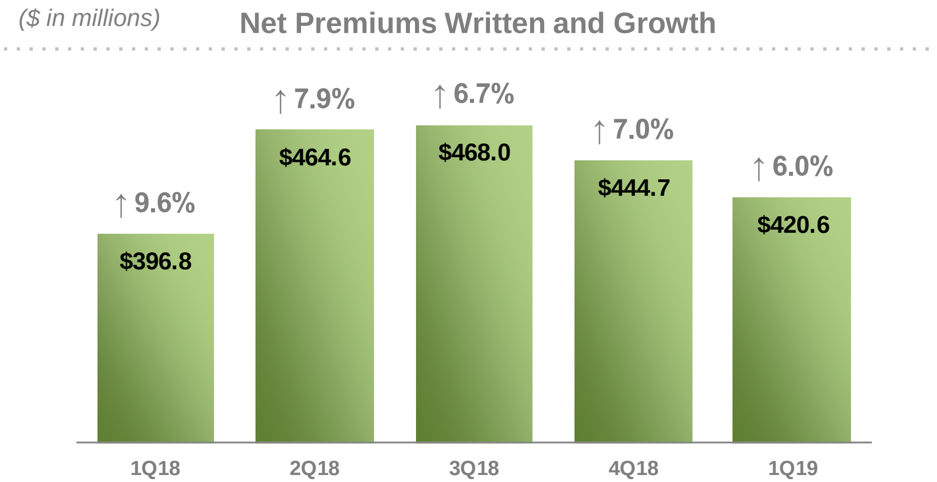
Personal Lines Underwriting Highlights

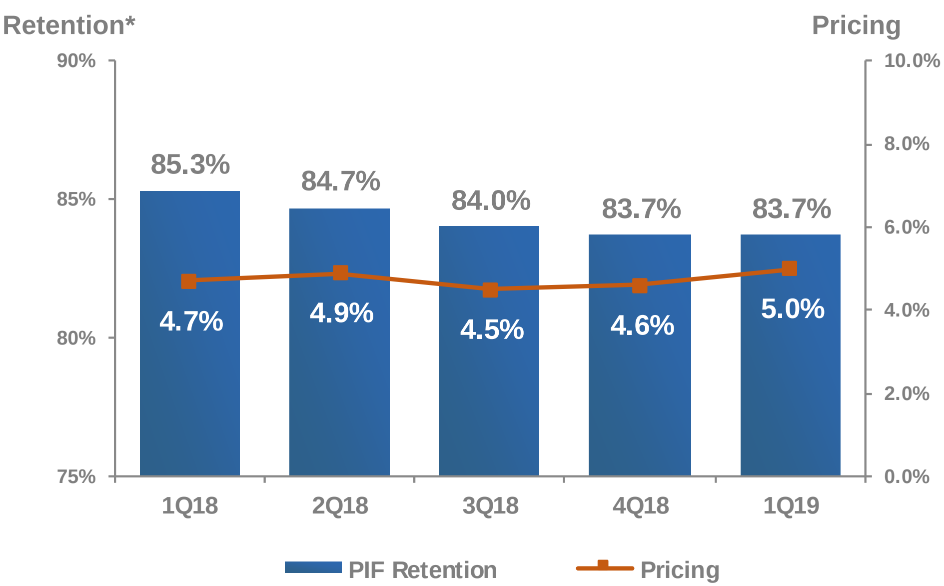




- Combined ratio of 98.2%; combined ratio, ex-cat, of 91.6% increased 2.5 points over the prior-year quarter:
  - Current accident year loss and LAE ratio, ex-cats, increased to 62.3%, driven by:
    - Homeowners, due to more normal winter weather in the current quarter, compared to lower than usual non-catastrophe weather losses in the prior-year quarter
    - Personal Auto, due to severity trends in bodily injury coverages
  - Unfavorable prior-year reserve development of $7.5 million, or 1.7 points, driven by:
    - Auto increase due to higher estimates for bodily injury severity in recent accident years attributable to increased attorney involvement, delayed submission of treatment costs and additional medical treatments
  - Expense ratio improvement of 0.3 points to 27.6%

Personal Lines Growth Highlights



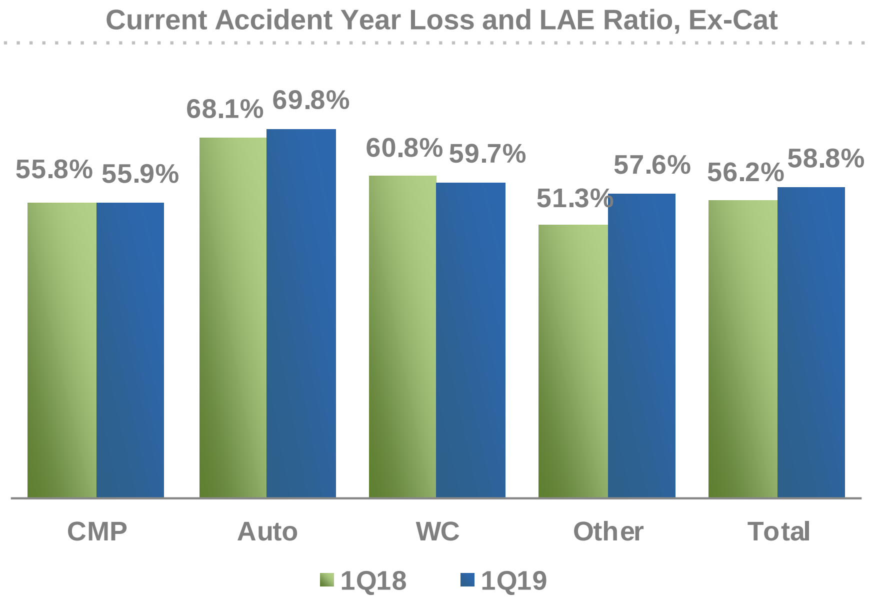


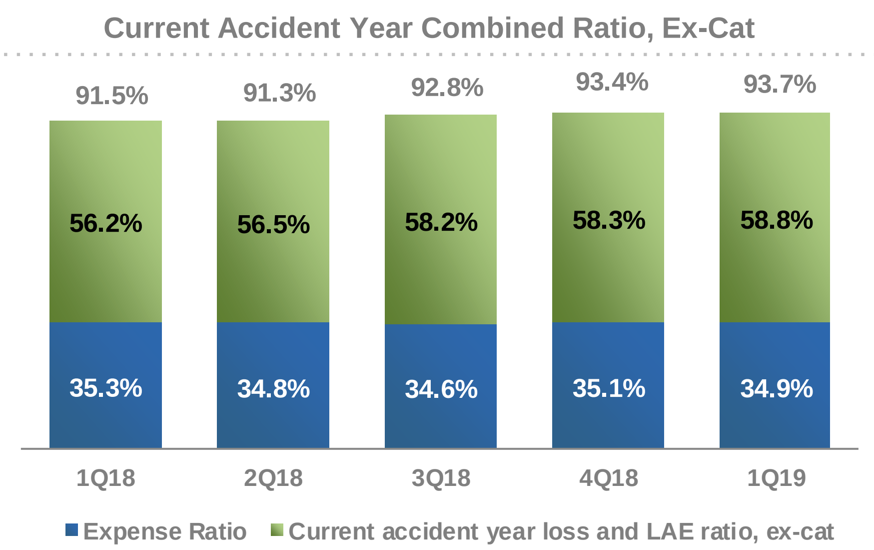
- Net premiums written growth of 6.0% in the quarter driven by rate increases and stable retention:
  - Solid rate increases of 5.0% in the quarter
  - Stable retention of 83.7% in the quarter, in-line with expectations
  - Policies in force grew 3.3% from the prior-year quarter, primarily from Hanover Platinum product

- Strong quality of growth:
  - Account business is 84% of total book
  - Hanover Platinum product now makes up 46% of overall Personal Lines business and 75% of new business premiums

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

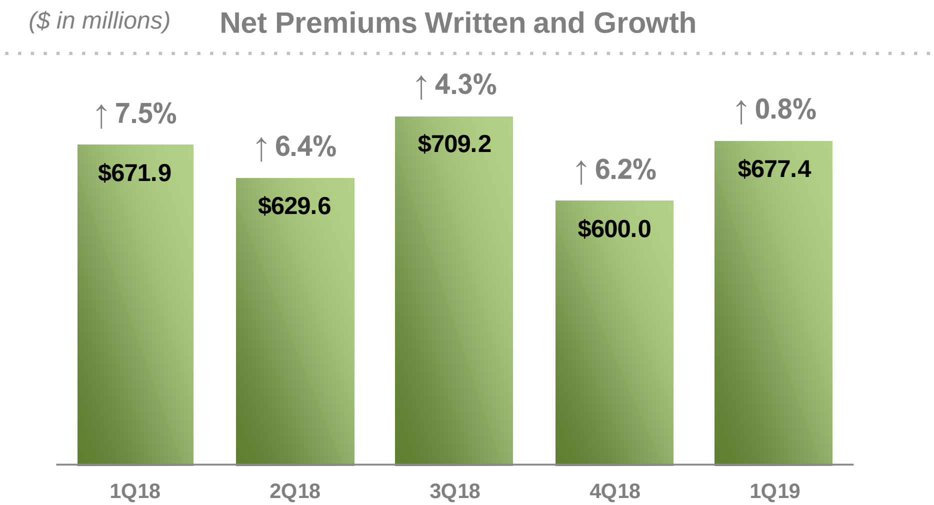
Commercial Lines Underwriting Highlights

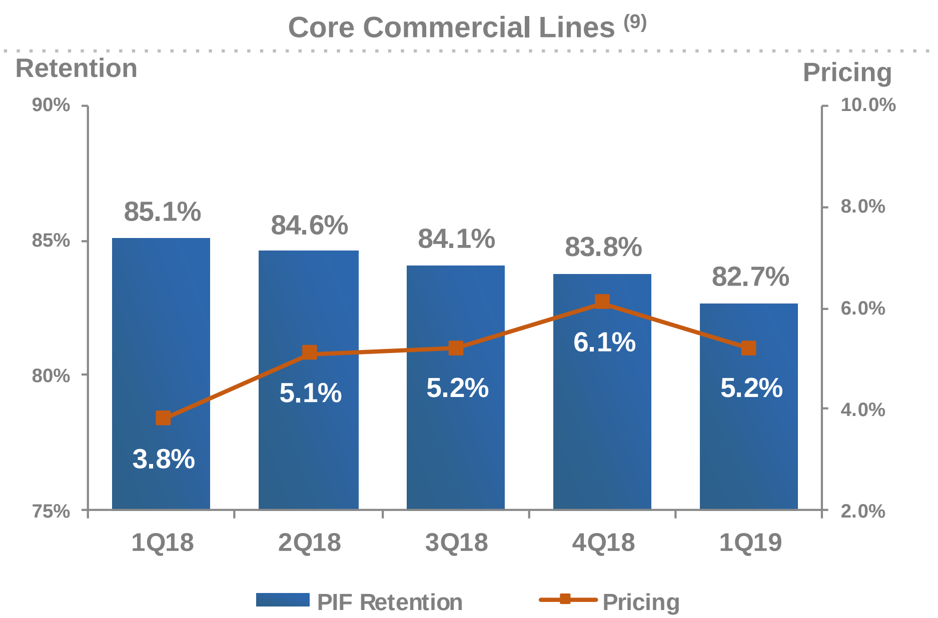




- Combined ratio of 94.2%; combined ratio, ex-cat, of 92.6% increased 1.4 points from the prior-year quarter:
  - Current accident year loss and LAE ratio, excluding catastrophes, increased to 58.8%, driven by:
    - Other Commercial lines, due to large loss activity in specialty industrial property, including two significant losses
    - Commercial Auto, due to loss selection increases in the second half of 2018
  - Favorable prior-year reserve development in the quarter of $7.5 million, or 1.1 points, driven by:
    - Favorable development in Workers' Compensation and Commercial Multiple Peril lines
    - Partially offset by Commercial Auto reserve additions in bodily injury as a result of increased attorney involvement and medical cost inflation
  - Expense ratio improvement of 0.4 points to 34.9%

Commercial Lines Growth Highlights



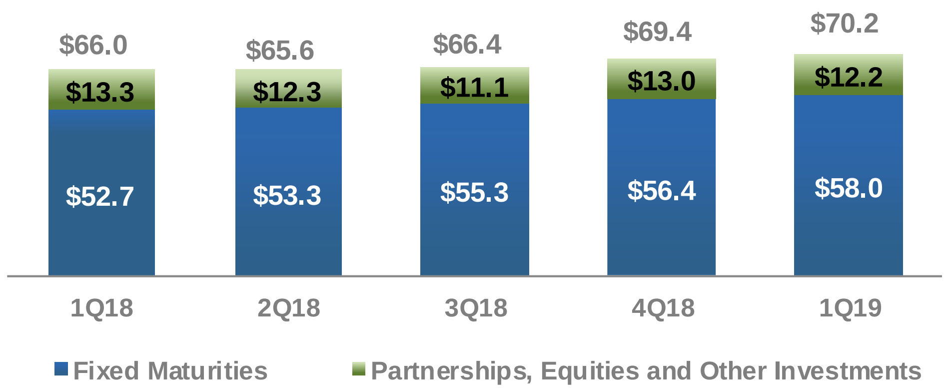


- Net premiums written growth of 0.8% from the prior-year quarter, driven by growth in the more profitable segments:
  - Growth in Technology, Professional Lines, Marine and Small Commercial
  - Partially offset by profitability improvement initiatives in Commercial Auto and Hanover Program business
  - Commercial lines growth of 3.0%, excluding Commercial Auto and Hanover Program business
- Core Commercial pricing increase of 5.2%, led by Commercial Auto; Workers' Compensation pricing remains competitive
- Retention of 82.7% in the quarter, which remains in line with expectations
  - Sequential decrease in retention primarily driven by targeted non-renewals in Commercial Auto

Net Investment Income Trends

($ in millions)

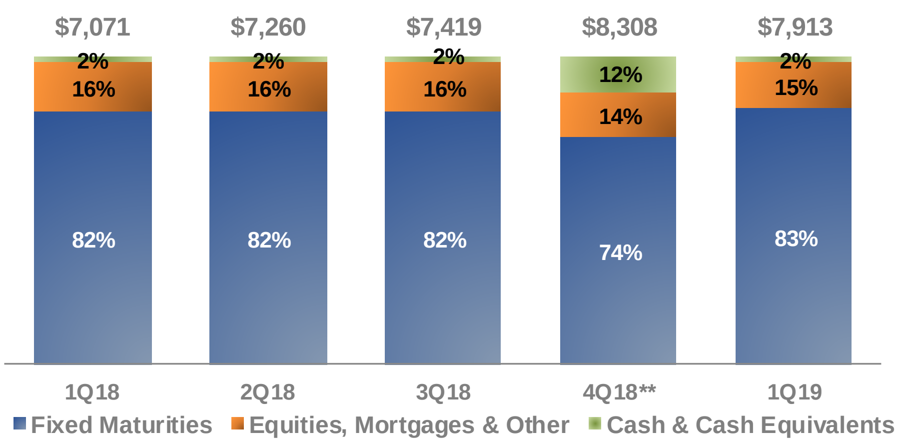
Net Investment Income*



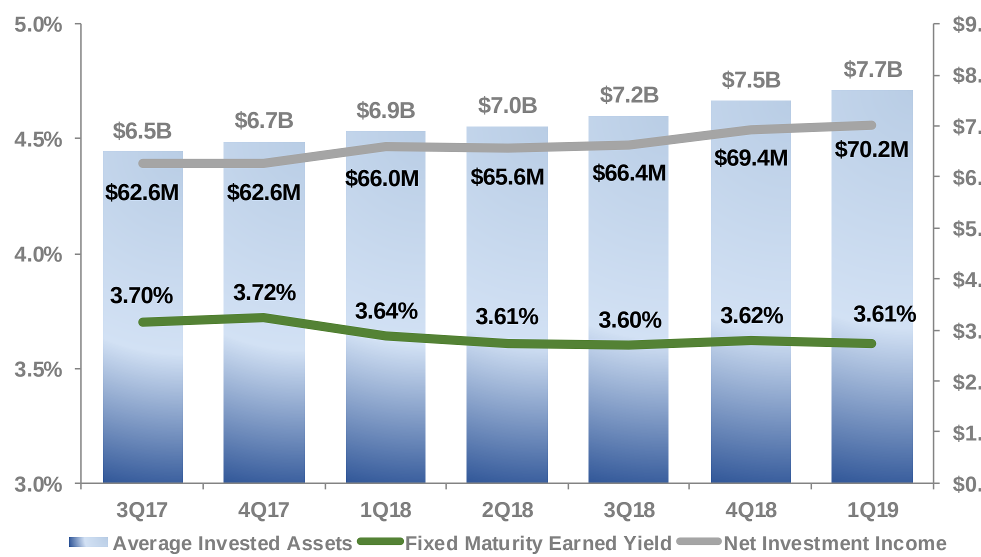
- Net investment income increased 6.4% from the prior-year quarter, primarily due to:
  - Continued reinvestment of operating cash flows
  - Investment of un-deployed proceeds from the sale of Chaucer
  - Partially offset by lower income from partnership investments

($ in millions)

Cash and Invested Assets



Investment Portfolio Trends



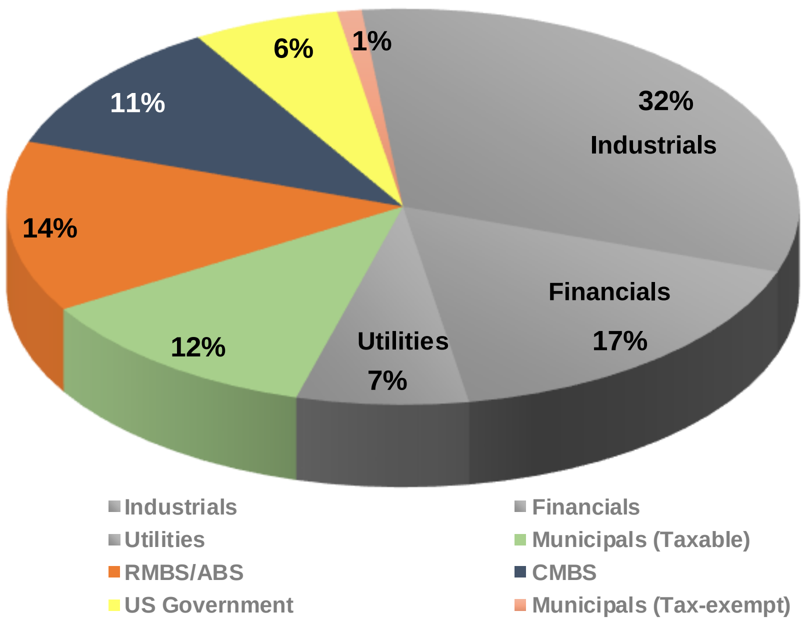
*Net Investment Income from Partnerships, Equities and Other investments is presented net of investment expenses

**Includes $779 million in initial cash consideration received in connection with the sale of Chaucer

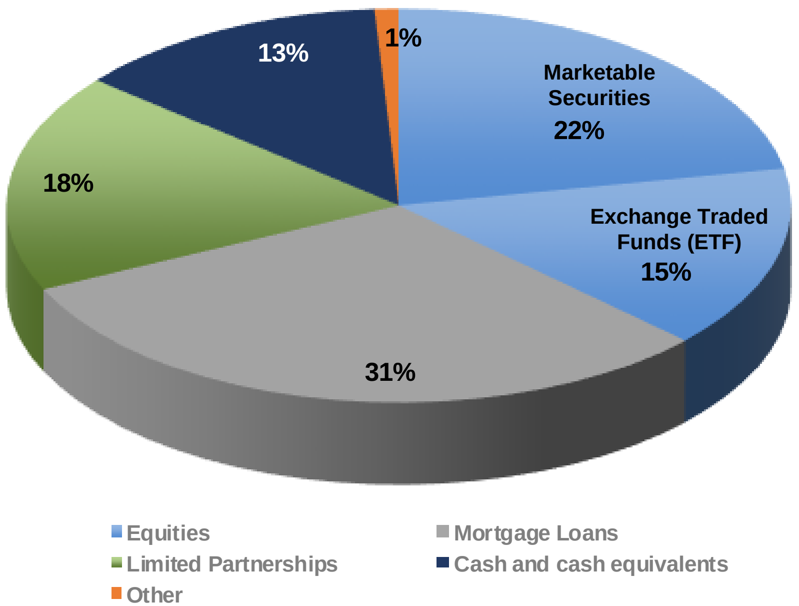
The Hanover Insurance Group®

Investment Portfolio Holdings – Total Invested Assets $7.9B at March 31, 2019

Fixed Maturities $6.6 Billion



Equities and Other $1.3 Billion



Fixed Income Characteristics:

- 95% of fixed maturity securities are investment grade
- Weighted average quality: A+
- Duration: 4.3 years

Appendix

Book Value Roll Forward

Book value per share of $71.95, up 3.1% from December 31, 2018

	Three months ended March 31, 2019
Beginning book value per share	$69.81
Net income	2.97
Ordinary dividends	(0.60)
Change in unrealized gains (losses) on investments, net of tax	2.88
Timing of ASR share delivery*	(0.78)
ASR and other	(2.33)
Ending book value per share	$71.95
Growth	3.1%

*Under the terms of the ASR, the full payment of $250 million was made on January 2, 2019, in conjunction with the delivery of approximately 80% of the shares initially expected to be repurchased. The remaining shares will be delivered before the end of the second quarter 2019. The timing of this second delivery causes additional dilution beyond what is expected under a normal share repurchase. The $(0.78) impact is an estimate based on the initially expected total number of shares and assumes that the number of shares delivered at the end of the second quarter would be equal to 20% of the total shares received under the ASR. The actual impact will be dependent on the actual number of shares delivered.

Operating Return on Equity Calculation and Deployable Equity Balance

Operating ROE = Annualized period operating income after taxes / Average of beginning and ending shareholders' equity for the periods presented, excluding net unrealized appreciation (depreciation) on fixed maturity investments net of tax

Adjusted Operating ROE = Annualized period operating income after taxes, excluding net investment income generated by un-deployed Chaucer equity / Average of beginning and ending shareholders' equity for the periods presented, excluding net unrealized appreciation (depreciation) on fixed maturity investments net of tax and un-deployed equity related to Chaucer

Un-deployed Equity Balance

- On September 30, 2018, "equity attributable to Chaucer" was $614.6 million, which was used for all prior-periods
- For period ended December 31, 2018 onward and until the deployable equity from the sale of Chaucer has been utilized, shareholders' equity will be reduced by such "un-deployed equity"

Events	Deployable Equity
Sale close (December 30, 2018)	$850.0 million
Less: Special Cash Dividend (December 30, 2018)	$193.4 million
Un-deployed equity as of December 31, 2018	$656.6 million
Less: Accelerated Stock Repurchase Program (January 2, 2019)	$250.0 million
Un-deployed equity as of March 31, 2019	$406.6 million

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 in a dynamic world. The Hanover distributes its products through a select group of independent agents and brokers. Together with its agents, 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.

End notes

(1) Operating income (loss) and operating income (loss) per diluted share are non-GAAP measures. See the disclosure on the use of non-GAAP measures throughout this presentation under the heading "Non-GAAP Financial Measures." The following table provides the reconciliation of operating income (loss) and operating income (loss) per diluted share to the most directly comparable GAAP measures, income (loss) from continuing operations and income (loss) from continuing operations per diluted share, respectively:

	Three months ended			
	March 31, 2018		March 31, 2019	
(In millions, except per share data)	$ Amount	Per Share Diluted	$ Amount	Per Share Diluted
OPERATING INCOME (LOSS)				
Commercial Lines	$61.4		$80.2	
Personal Lines	34.3		26.8	
Other	(2.4)		2.8	
Total	93.3		109.8	
Interest expense	(11.3)		(9.4)	
Operating income before income taxes	82.0	$1.91	100.4	$2.44
Income tax expense on operating income	(15.9)	(0.37)	(19.7)	(0.48)
Operating income after income taxes	66.1	1.54	80.7	1.96
Non-operating items:				
Net realized gains (losses) from sales and other	0.6	0.01	(0.4)	(0.01)
Net change in fair value of equity securities	(22.9)	(0.53)	48.6	1.18
Net other-than-temporary impairment losses on investments recognized in earnings	(0.6)	(0.01)	-	-
Income tax benefit (expense) on non-operating items	7.3	0.16	(6.3)	(0.15)
Income from continuing operations, net of taxes	50.5	1.17	122.6	2.98
Discontinued Operations:				
Gain from sale of Chaucer business, net of taxes	-	-	0.9	0.02
Income (loss) from Chaucer business, net of taxes	17.3	0.40	(0.3)	(0.01)
Loss from discontinued life business, net of taxes	(0.1)	-	(0.8)	(0.02)
Net income	$67.7	$ 1.57	$122.4	$ 2.97
Weighted average shares outstanding		43.1		41.2

End notes continued

(2) Combined ratio, excluding catastrophes, is a non-GAAP measure, which is equal to the combined ratio, excluding catastrophe losses. This measure and measures excluding prior-year reserve development ("current accident-year" ratios) are used throughout this document. The combined ratio (which includes catastrophe losses and prior-year reserve development) is the most directly comparable GAAP measure. The following is a reconciliation of the GAAP combined ratio to the combined ratio, excluding catastrophes losses:

	Three months ended March 31, 2018			Three months ended March 31, 2019		
	Commercial Lines	Personal Lines	Total	Commercial Lines	Personal Lines	Total
Total combined ratio	97.2%	95.8%	96.6%	94.2%	98.2%	95.8%
Less: catastrophe ratio	6.0%	6.7%	6.2%	1.6 %	6.6%	3.6%
Combined ratio, excluding catastrophe losses	91.2%	89.1%	90.4%	92.6%	91.6%	92.2%

End notes continued

(3) Core Commercial business provides commercial property and casualty coverages to small and mid-sized businesses in the U.S., generally with annual premiums per policy up to $250,000, primarily through the commercial multiple peril, commercial auto and workers' compensation lines of business, as reported on the current quarter financial supplement. Price increases in Commercial Lines represent the average change in premium on renewed policies caused by the estimated net effect of base rate changes, discretionary pricing, inflation or changes in policy level exposure or insured risks.

	Three months ended March 31, 2018			Three months ended March 31, 2019		
($ in millions)	Core Commercial	Other Commercial	Total	Core Commercial	Other Commercial	Total
Net premiums written	$398.7	$273.2	$671.9	$402.5	$274.9	$677.4
Net premiums earned	$368.5	$260.5	$629.0	$382.4	$270.0	$652.4

(4) Price increases in Personal Lines is the estimated cumulative premium effect of approved rate actions applied to policies available for renewal, regardless of whether or not policies are actually renewed. Pricing changes do not represent actual increases or decreases realized by the company.

End notes continued

(5) Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, is a non-GAAP measure. Total shareholders' equity is the most directly comparable GAAP measure, and is reconciled in the table below. For the calculation of Operating ROE, the average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, for the beginning and ending quarters are used. The balance at December 31, 2018 is adjusted by the payment of $250 million made on January 2, 2019 related to the ASR entered into on December 30, 2018. For the calculation of Adjusted Operating ROE, the average shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and "equity attributable to Chaucer" for measurement periods prior to the close, or "un-deployed equity" for measurement periods post-close, for the beginning and ending quarters are used (see page 15).

($ in millions)	December 31, 2017	March 31, 2018	December 31, 2018	March 31, 2019
Total shareholders' equity (GAAP)	$2,997.7	$2,913.1	$2,954.7	$2,927.0
Less: net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	205.4	0.3	(27.2)	90.7
Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	2,792.3	2,912.8	2,981.9	2,836.3
Less: Payment made on January 2, 2019 for the ASR agreement entered into on December 30, 2018	-	-	(250.0)	-
Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and including the ASR payment	2,792.3	2,912.8	2,731.9	2,836.3
Less: Pre-sale, equity attributable to Chaucer; or post-close, un-deployed equity	(614.6)	(614.6)	(406.6)	(406.6)
Adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and pre-sale, equity attributable to Chaucer; or post-close, un-deployed equity	$2,177.7	$2,298.2	$2,325.3	$2,429.7
Average shareholders' equity (GAAP)		$2,955.4		$2,940.9
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and including the ASR payment		$2,852.6		$2,784.1
Average adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and pre-sale, equity attributable to Chaucer; or post-close, un-deployed equity; and including the ASR payment		$2,238.0		$2,377.5

End notes continued

(6) Operating Return on Average Equity and Adjusted Operating Return on Average Equity ("Operating ROE" and "Adjusted Operating ROE") are non-GAAP measures. As illustrated on page 15, operating ROE is calculated by dividing annualized operating income after tax for the applicable period (see under the heading in this press release "Non-GAAP Financial Measures" and end note (1)), by average shareholders' equity, excluding unrealized appreciation (depreciation) on fixed maturity investments, net of tax, for the stated period. Also as illustrated on page 15, for Adjusted Operating ROE, shareholders' equity is adjusted for "equity attributable to Chaucer" for measurement periods prior to the close, which occurred on December 28, 2018, for "the un-deployed equity" for measurement periods post-close and for net unrealized appreciation (depreciation) on fixed maturity investments, net of tax. Additionally, for the calculation of Adjusted Operating ROE, Operating Income, net of tax, is adjusted for the net investment income related to un-deployed equity attributable to Chaucer, net of tax. Operating ROE and Adjusted Operating ROE should not be construed as substitutes for GAAP ROE. See calculations in table below, including the calculation of Net Income ROE using net income, annualized, and average shareholders' equity without adjustments:

	Three months ended	
	March 31	March 31
Net Income ROE (non-GAAP)	2018	2019
Net Income (GAAP)	$67.7	$122.4
Annualized net income*	270.8	489.6
Average shareholders' equity (GAAP) (end note (5))	2,955.4	2,940.9
Return on equity	9.2%	16.6%
Operating Income ROE (non-GAAP)		
Annualized operating income, net of tax* (end note (1))	$264.4	$322.8
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and including the ASR payment (end note (5))	2,852.6	2,784.1
Operating return on equity	9.3%	11.6%
Adjusted Operating Income ROE (non-GAAP)		
Annualized operating income, net of tax* (end note (1))	$264.4	$322.8
Less: Annualized net investment income related to un-deployed equity attributable to Chaucer, net of tax**	-	(11.7)
Annualized operating income, including adjustment for NII related to un-deployed equity attributable to Chaucer, net of tax	264.4	311.1
Average adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and pre-sale, equity attributable to Chaucer; or post-close, un-deployed equity (end note (5))	2,238.0	2,377.5
Adjusted operating return on equity	11.8% $	13.1%

*For the three months ended March 31, 2018 and 2019, respectively, annualized net and operating income is calculated by multiplying three months ended net income and operating income, respectively, by four.

**For the three months ended March 31, 2019, annualized net investment income related to un-deployed equity attributable to Chaucer is calculated by multiplying the un-deployable equity attributable to Chaucer by the total annualized pre-tax yield, net of tax.

End notes continued

(7) Current accident year combined ratio, excluding catastrophe losses, is a non-GAAP measure, which is equal to the combined ratio, excluding prior-year reserve development and catastrophe losses. The combined ratio (which includes catastrophe losses and prior-year reserve development) is the most directly comparable GAAP measure. The following is a reconciliation of the GAAP combined ratio to the current accident year combined ratio, excluding catastrophe losses:

	Three months ended March 31, 2019		
	Commercial Lines	Personal Lines	Total
Total combined ratio	94.2%	98.2%	95.8%
Less:			
Prior-year reserve development ratio	(1.1%)	1.7%	-
Catastrophe ratio	1.6%	6.6%	3.6%
Current accident year combined ratio, excluding catastrophe losses	93.7%	89.9%	92.2%
	December 31, 2018		
Total combined ratio	98.2%	96.0%	97.4%
Less:			
Prior-year reserve development ratio	(2.5%)	3.5%	-
Catastrophe ratio	7.3%	0.7%	4.6%
Current accident year combined ratio, excluding catastrophe losses	93.4%	91.8%	92.8%
	September 30, 2018		
Total combined ratio	96.6%	92.8%	95.1%
Less:			
Prior-year reserve development ratio	(1.3%)	2.0%	-
Catastrophe ratio	5.1%	2.9%	4.2%
Current accident year combined ratio, excluding catastrophe losses	92.8%	87.9%	90.9%
	June 30, 2018		
Total combined ratio	93.9%	97.6%	95.5%
Less:			
Prior-year reserve development ratio	(1.3%)	1.8%	-
Catastrophe ratio	3.9%	8.0%	5.6%
Current accident year combined ratio, excluding catastrophe losses	91.3%	87.8%	89.9%
	March 31, 2018		
Total combined ratio	97.2%	95.8%	96.6%
Less:			
Prior-year reserve development ratio	(0.3%)	0.4%	-
Catastrophe ratio	6.0%	6.7%	6.2%
Current accident year combined ratio, excluding catastrophe losses	91.5%	88.7%	90.4%

End notes continued

(8) On this page and later in this document, the expense ratio is reduced by installment fees for purposes of the ratio calculation.

(9) 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, 2019									
	Commercial Multiple Peril	Commercial Auto	Workers' Comp	Commercial Other	Commercial Lines	Personal Auto	Home	Other Personal	Personal Lines	Total
Total loss and LAE Ratio	58.4%	72.6%	54.0%	57.4%	59.3%	73.1%	67.1%	54.6%	70.6%	63.9%
Less:										
Prior-year reserve development ratio	(1.8%)	2.7%	(5.7%)	(0.5%)	(1.1%)	2.2%	-	11.1%	1.7%	-
Catastrophe ratio	4.3%	0.1%	-	0.3%	1.6%	0.3%	18.4%	1.9%	6.6%	3.6%
Current accident year loss ratio, excluding catastrophe losses	55.9%	69.8%	59.7%	57.6%	58.8%	70.6%	48.7%	41.6%	62.3%	60.3%
	December 31, 2018									
Total loss and LAE Ratio					63.1%				68.3%	65.3%
Less:										
Prior-year reserve development ratio					(2.5%)				3.5%	-
Catastrophe ratio					7.3%				0.7%	4.6%
Current accident year loss ratio, excluding catastrophe losses					58.3%				64.1%	60.7%
	September 30, 2018									
Total loss and LAE Ratio					62.0%				64.8%	63.1%
Less:										
Prior-year reserve development ratio					(1.3%)				2.0%	-
Catastrophe ratio					5.1%				2.9%	4.2%
Current accident year loss ratio, excluding catastrophe losses					58.2%				59.9%	58.9%
	June 30, 2018									
Total loss and LAE Ratio					59.1%				69.9%	63.5%
Less:										
Prior-year reserve development ratio					(1.3%)				1.8%	-
Catastrophe ratio					3.9%				8.0%	5.6%
Current accident year loss ratio, excluding catastrophe losses					56.5%				60.1%	57.9%
	March 31, 2018									
Total loss and LAE Ratio	68.3%	72.5%	57.5%	54.9%	61.9%	70.7%	64.4%	46.9%	67.9%	64.2%
Less:										
Prior-year reserve development ratio	(0.4%)	4.0%	(3.3%)	(0.6%)	(0.3%)	0.4%	0.5%	(2.0%)	0.4%	-
Catastrophe ratio	12.9%	0.4%	-	4.2%	6.0%	0.4%	18.0%	6.1%	6.7%	6.2%
Current accident year loss ratio, excluding catastrophe losses	55.8%	68.1%	60.8%	51.3%	56.2%	69.9%	45.9%	42.8%	60.8%	58.0%

End notes continued

(10) Below is a reconciliation of net premiums written to net premiums written, excluding Commercial Auto and Hanover Program business (what is referred to as “growth of 4.3%, excluding these initiatives” on page 6 and “commercial lines growth of 3.0%, excluding Commercial Auto and Hanover Program business” on page 10):

Consolidated	March 31, 2018	March 31, 2019	Growth
Consolidated net premiums written	$1,068.7	$1,098.0	2.7 %
Less:			
Commercial Auto	89.7	85.8	(4.3)%
Program Business	52.8	46.3	(12.4)%
Net premiums written, excluding Commercial Auto and Program Business	$926.2	$965.9	4.3 %

Commercial Lines	March 31, 2018	March 31, 2019	Growth
Commercial Lines net premiums written	$671.9	$677.4	0.8 %
Less:			
Commercial Auto	89.7	85.8	(4.3)%
Program Business	52.8	46.3	(12.4)%
Net premiums written, excluding Commercial Auto and Program Business	$529.4	$545.3	3.0 %