The Hanover Insurance Group (NYSE: THG)

2019 Keefe, Bruyette and Woods Insurance Conference

September 4, 2019

The Hanover Insurance Group®

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 for share repurchases, special or ordinary cash dividends, business investments, or otherwise, and the number of shares expected to be repurchased pursuant to the current accelerated share repurchase agreement and outstanding in future periods;
- 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, 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;
- 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;

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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 recent significant revisions to Michigan's automobile personal injury protection system and reviver statues and extension of statute of limitations for sexual molestation claims);
- 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 July 31, 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 operations. 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 undeployed equity", and related net investment income, is excluded. This eliminates the dilutive impact of any excess capital that would have been included in shareholders' equity and net investment income included in operating income for the corresponding periods presented. In addition, the portion of shareholder equity attributed to unrealized appreciation (depreciation) on fixed maturity investments, net of tax, is also excluded. The company 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, and, in the case of "adjusted operating ROE", undeployed equity attributable to Chaucer. 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.

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Key messages

Proven strategy with differentiated market position

Opportunities for continued profitable growth

Strong financial performance

Ambitious but achievable long-term goals

$5.2B domestic P&C franchise with exceptional opportunities

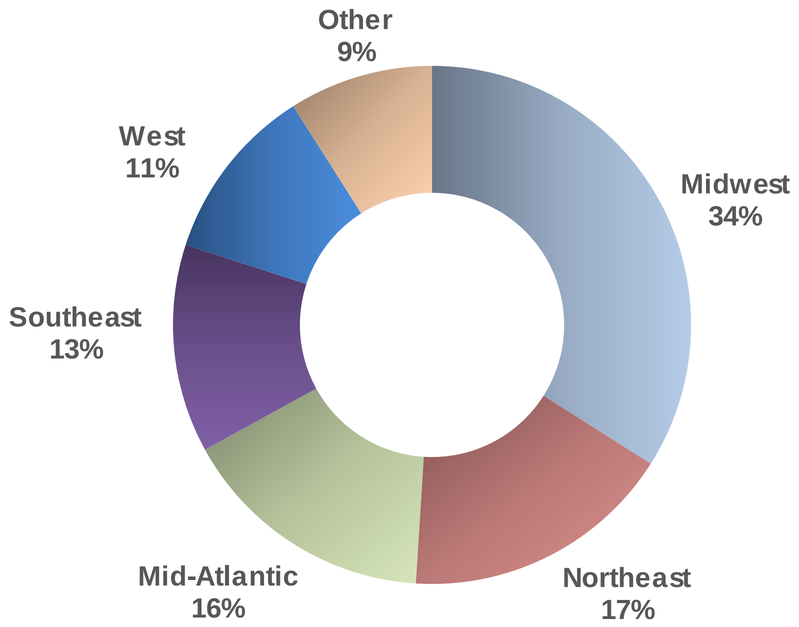
~$5.2B	$4.5B	12.6%	"A"
Market Capitalization*	2018 Revenue	2018 Adjusted Operating ROE(1)	Financial strength

*As of the close of trading on 8/29/2019

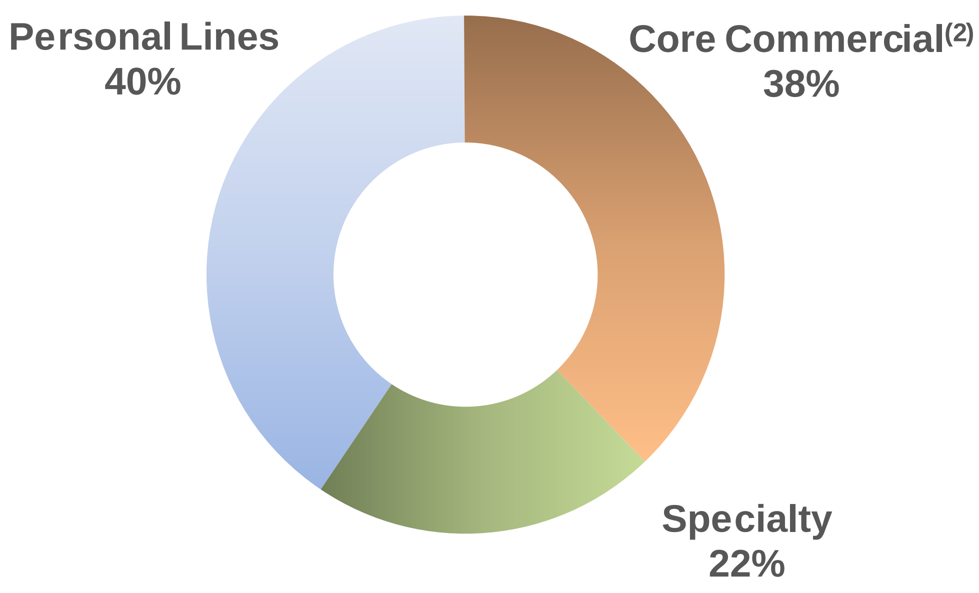
Well-diversified franchise with ***broad*** and ***relevant*** product mix

$4.4B 2018 Net Premiums Written

Geographic Mix



Business Mix



The Hanover Insurance Group®

Our Vision: To be the premier property and casualty company in the independent agency channel

AGENCY CARRIER OF CHOICE

LEADING SPECIALIZED CAPABILITIES

GROWTH THROUGH INNOVATION

OUR STRATEGY

Unique, collaborative culture

Unparalled insights and expertise

Outstanding performance and service

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Agency carrier of choice

Unique agency distribution approach

Targeted distribution

2,100 of the best agents in the U.S.

7% average agency market share

Underwriting expertise

Differentiated products

Insight through data and analytics

Local presence with 49 offices

Deep business insights

$60B of target market data profiled

Pursuit of informed opportunities

Agency Insights allows us to help agents better serve their customers

Focus on targeted opportunities

	Typical Carrier Best Practices	How Agency Insights Enhances Our Approach
Market Insights	• SNL Financial & Market Stance • Rate Filings • AM Best Reports • Industry Publications • Peer Financial Statements	• Identify patterns in customer fragmentation: • mono-line vs. account business • Clarify actual distribution & demographic patterns by product line and segment • Clear understanding of the competitive landscape for targeted segments
Agency Planning	• Secure growth projections • Gain commitments on initiatives	• Create and leverage industry benchmarks to help agents better serve customers and improve their economics • Align our growth initiatives on targeted mix
Sourcing	• Develop sales pipelines with agents • Marketing campaigns • Focus sales staff on perceived opportunities	• Focus sales staff on specific target opportunities • Tailor marketing campaigns to best shape and improve the agent's book of business profile

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Agency carrier of choice

Areas for growth opportunities

Increasing shelf space

- Number of agents with over $5 million in premium increased 17% in 2018; they write over 50% of our business
- 6% penetration with top agents with significant headroom remaining

Responsible risk appetite expansion

- Expanding target industry classes:
  - Financial services
  - Technology
  - Life sciences
  - Appetite expansion in professional liability

Targeted new agency appointments

- Appointed approximately 200 new agents in 2018
- Additional appointments planned for 2019
  - Balanced with a limited distribution approach

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Leading specialized capabilities

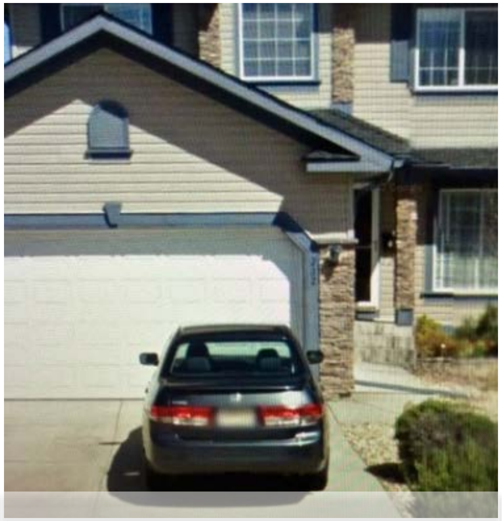
Differentiation is key

Personal Lines	Core Commercial	Specialty
Account offering for customers with complex needs	Industry specialization and a unique operating model	Robust and relevant specialized offering

Leading specialized capabilities – Personal Lines

Industry Landscape

Non-standard/auto only



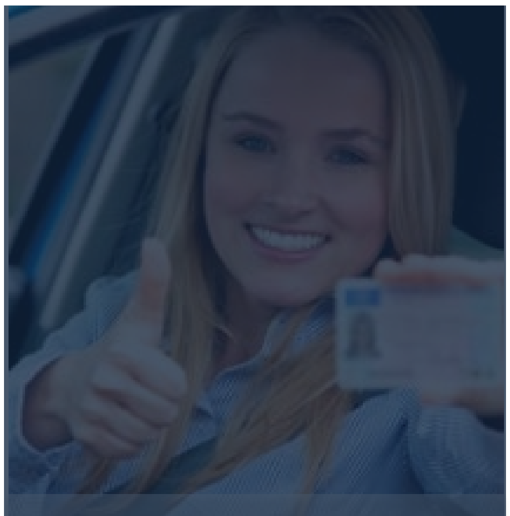
$250K-$2M coverage A

High net worth

RISK SIZE

Leading specialized capabilities – Personal Lines

Where we play



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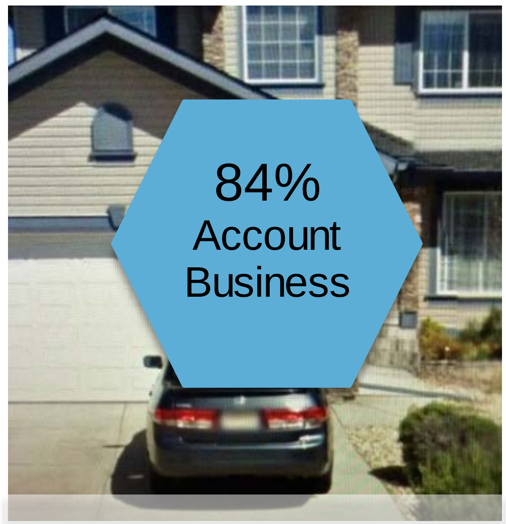
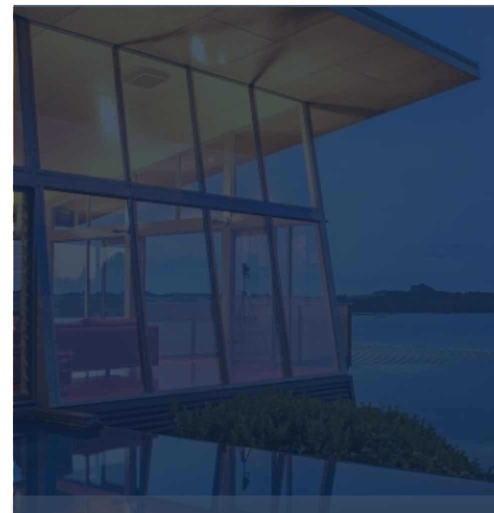


$250K-$2M coverage A



High net worth

RISK SIZE

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Leading specialized capabilities – Commercial Lines

Industry Landscape

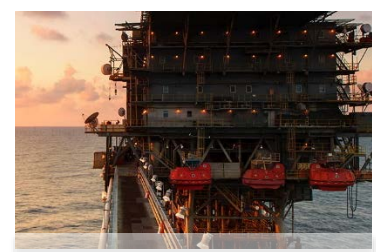
DIFFERENTIATION

Specialty

Micro

Small

Middle



National

RISK SIZE

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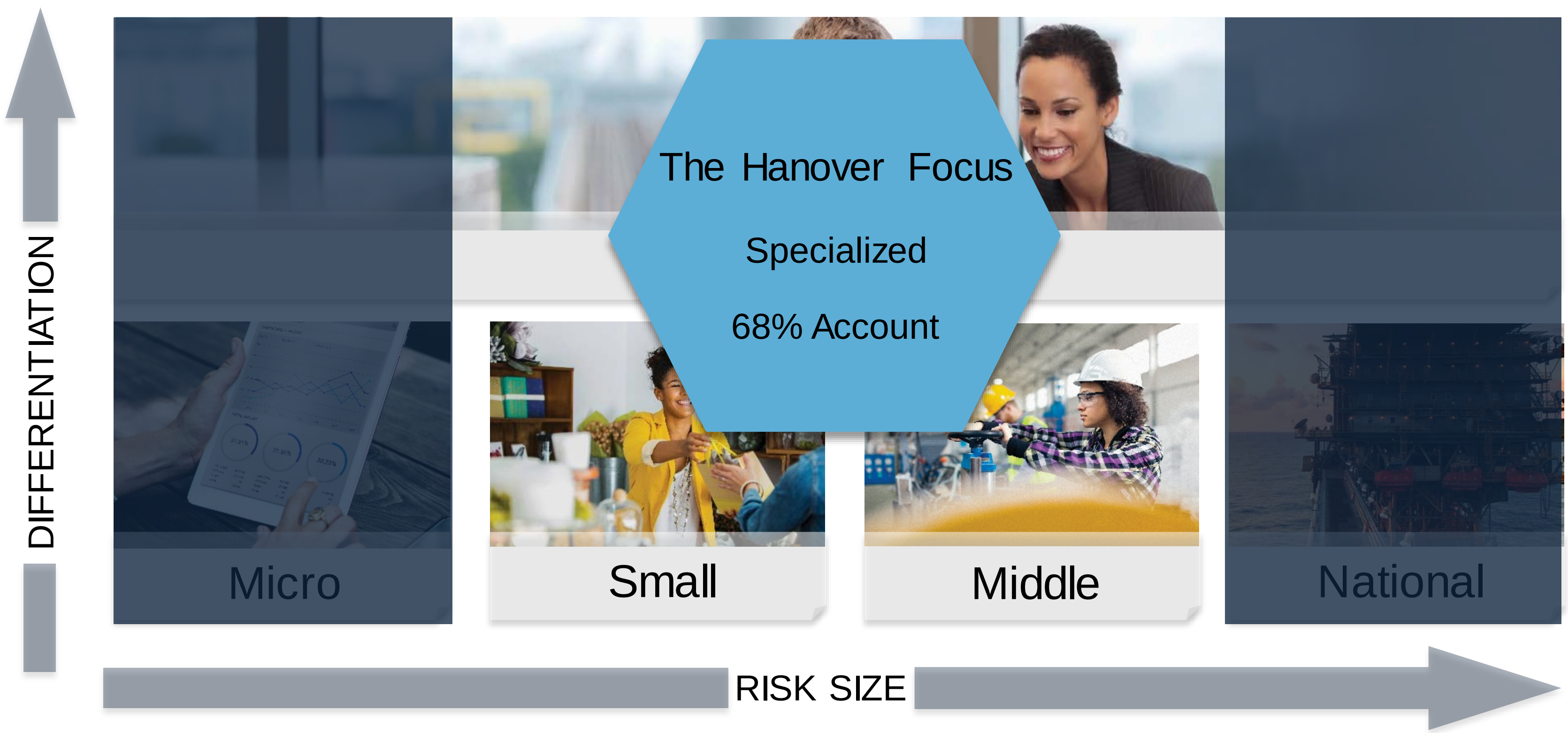
Leading specialized capabilities – Commercial Lines

Where we play



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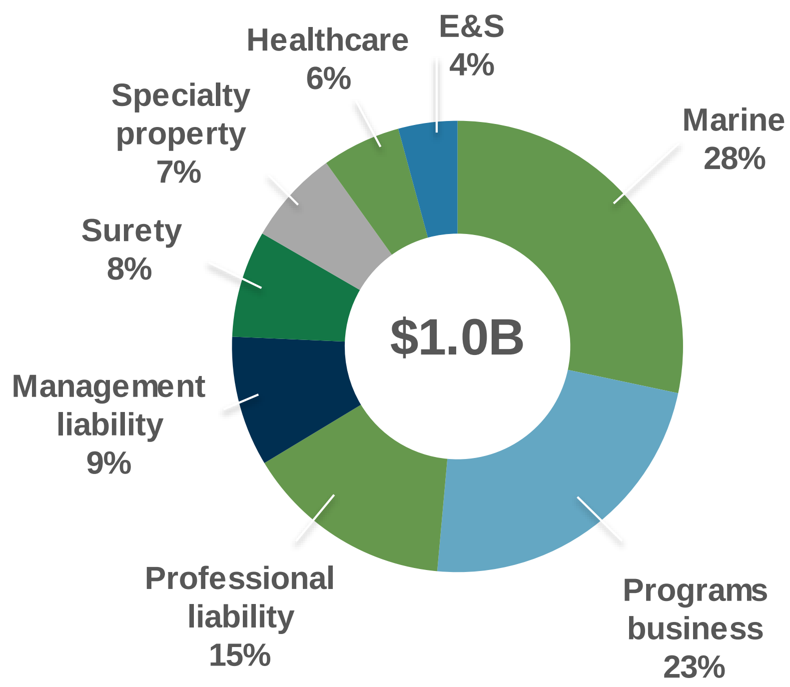
Leading specialized capabilities

Areas for growth opportunities

- Expanding product capabilities
- Enhancing existing E&S platforms
- Building increased relevance and shelf space with agents
- Leveraging Core Commercial platform

Specialty
2018 net premiums written



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Growth through innovation

Customer and agency interactions

- New platform for Personal and Small Commercial
- White-labeled websites for micro market

Analytics

- Improved data science across the enterprise
  - Claims predictive modeling
  - Underwriting, pricing and actuarial models

Efficiencies

- Use of robotics for operational efficiencies
- Use of drones in the underwriting and claims process

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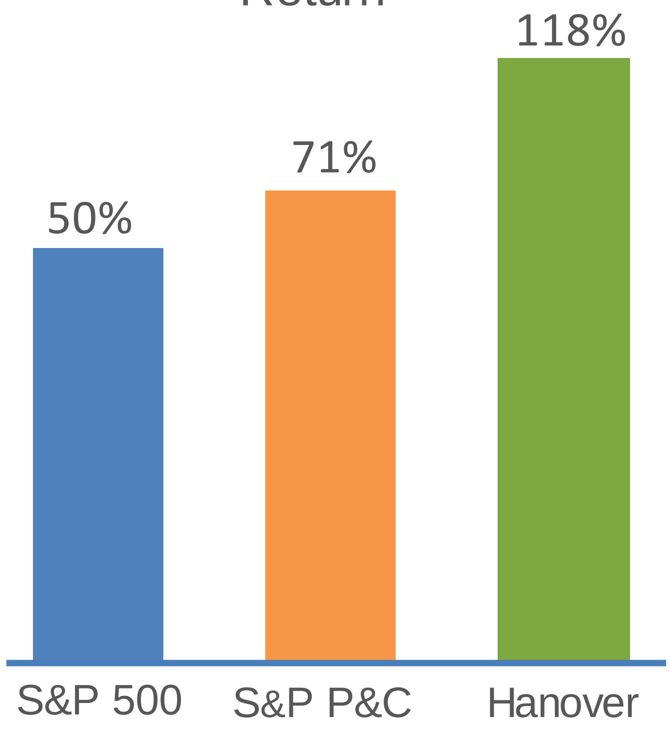
Financial results validate The Hanover strategy

Made great financial strides over the last several years

5 Year Total Shareholder Return*



2018 Adjusted Operating ROE[(1)]

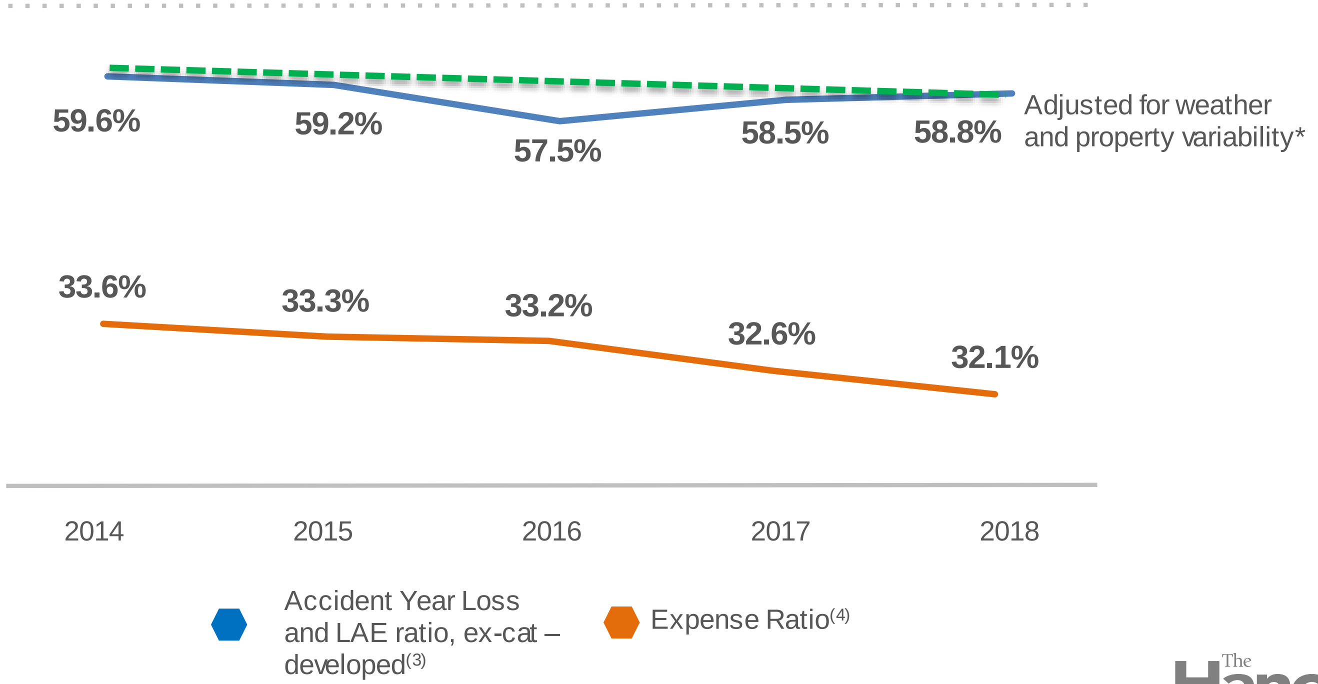
12.6%

*Assumes $100 invested on December 31, 2013, in the Hanover Insurance Group Inc.'s stock or applicable indices, including the reinvestment of dividends.

Improvement driven by strong fundamentals

- Improved accident year loss performance
- Expense ratio improvement from cost reductions and growth leverage

Expense ratio and developed accident year loss and LAE ratio, ex-cat

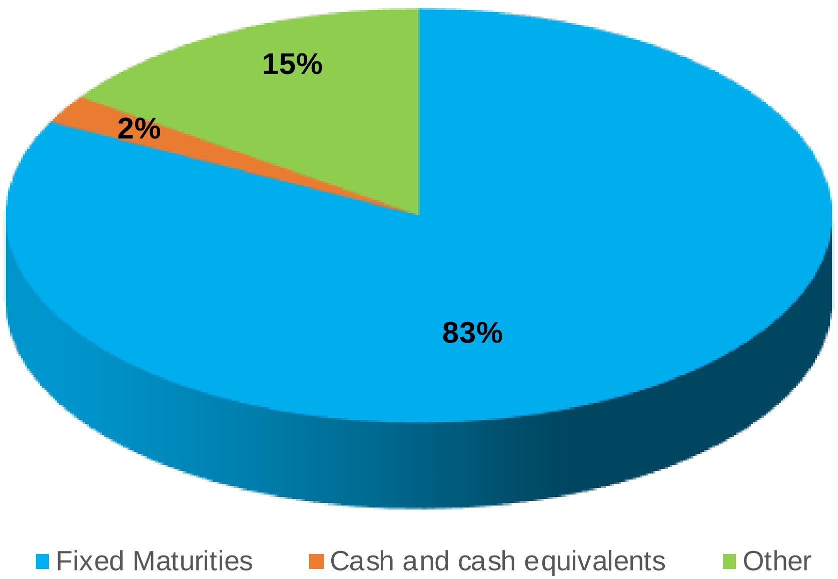


*There is a certain level of variability in property lines which is due to weather patterns and/or variability of large losses in any given year. The dotted line in this exhibit attempts to normalize for this variability. Investors should not place undue reliance on the presentation of loss ratios normalized for weather and/or variability of large losses.

Growth in net investment income

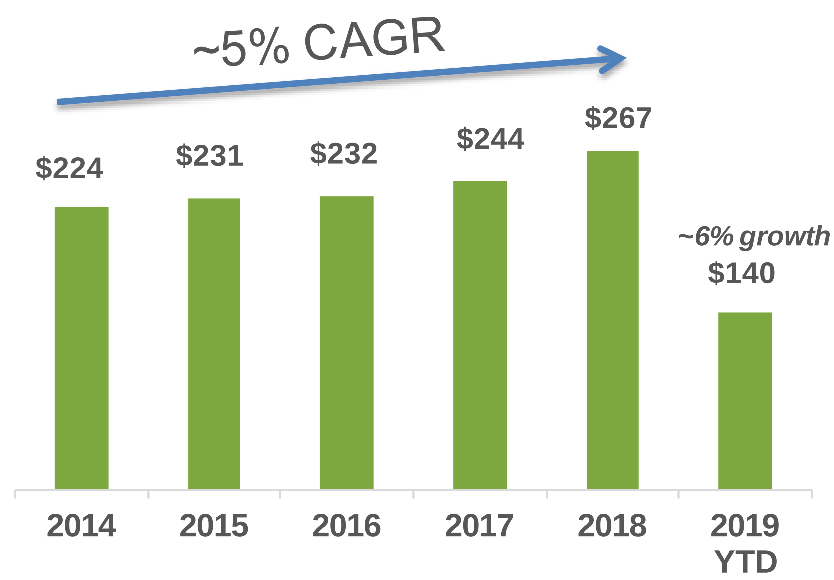
High quality, well-laddered and stable portfolio

Investment Portfolio* - $8.0 billion



Net Investment Income

($ in millions)



Fixed Income Characteristics:

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

*For the quarter ended June 30, 2019

Ambitious but achievable long-term goals

Strong financial platform for profitable growth

13-14% Target Operating ROE

Targeted profitable growth

6-7% premium growth

Prioritizing margin over growth

Stable loss ratio

Pricing increases and mix optimization

Offset loss trends

Financial Rigor

Continued expense discipline

24-26% marginal expense ratio

Thoughtful capital management and allocation

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Disciplined capital management

2011-2018*

$1.0B

Deployable equity created by Chaucer sale:

~$850M

Share repurchases
$470M

Regular Dividends
$570M

Returned to shareholders in 2019
$600M

To be redeployed
~$250M

Financial Strength Ratings:
- A.M. Best – A
- S&P – A
- Moody's – A2

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*Excluding capital returned from the sale of Chaucer

Key messages

Proven strategy with differentiated market position

Opportunities for continued profitable growth

Strong financial performance

Ambitious but achievable long-term goals

Appendix

Strong and Experienced Executive Leadership

John "Jack" Roche

President and Chief Executive Officer

- Appointed president and chief executive officer of The Hanover in October 2017
- Served in several senior leadership positions since joining The Hanover in 2006, responsible for personal and commercial lines, field operations, marketing and distribution, as well as commercial lines underwriting and product management
- Served in senior management roles at the St. Paul Travelers Companies
- Began his career at Fireman's Fund and Atlantic Mutual Insurance
- Serves on the board of directors for The Institutes and American Property Casualty Insurance Association

Jeff Farber

Executive Vice President,
Chief Financial Officer

- Successful track record in the insurance and financial services industries over the last 30 years
- Held senior executive roles at American International Group
- Served as chief financial officer of GAMCO Investors, Inc., a publicly-traded asset manager
- Held senior accounting and finance roles at The Bear Stearns Companies, Inc.
- Began career at Deloitte & Touche LLP, rising to partner in the firm

Richard 'Dick' Lavey

Executive Vice President,
President, Hanover Agency Markets

- 25 years in Property Casualty industry, 15 years with The Hanover
- Multiple leadership roles in the home office as well as the field, including President of Field Operations, President of Personal Lines, Chief Marketing Officer and Chief Growth Innovation Officer
- Vice president of strategic initiatives for The Hartford's property and casualty organization and vice president, strategic marketing for The Hartford's small commercial division.
- Began career at The Travelers Insurance Company
- Phi Beta Kappa graduate of The College of The Holy Cross and MBA degree from Harvard Business School

Bryan Salvatore

Executive Vice President,
President, Specialty

- 25 years of experience in the specialty business
- Served for 20 years with Zurich North America, including nearly five years as president of the company's specialty products business
- Led the rebuilding of Zurich's presence in the accident and health insurance space
- Director in the programs division of Frank Crystal & Co., Inc., a leading brokerage firm

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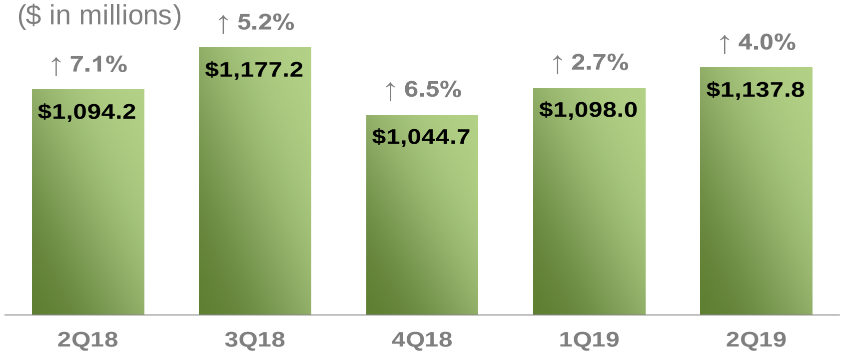
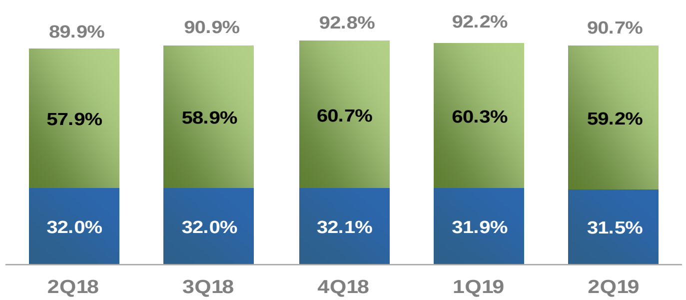
Second Quarter Financial and Strategic Results

($ in millions)	Three months ended June 30 2018	2019
Net premiums written	$1,094.2	$1,137.8
Growth	7.1%	4.0%
Net premiums earned	$1,058.2	$1,111.0
Combined ratio	95.5%	96.1%
Combined ratio, ex-cat[5]	89.9%	90.7%
Current accident year combined ratio, ex-cat[5]	89.9%	90.7%

Net Premiums Written and Growth



Current Accident Year Combined Ratio, Ex-Cat



Financial Update

- Strong results demonstrated by operating EPS[6] of $1.88 and adjusted operating ROE of 12.2%[1]
- Improved net premiums written growth to 4.0%, while continuing to make thoughtful underwriting decisions in Commercial Auto and Program Business
  - Excluding these targeted actions, growth of 5.7%[7] due to strong market position and successful agency partnerships
- Announced $150m ASR, a testament to active capital management framework

Strategic Update

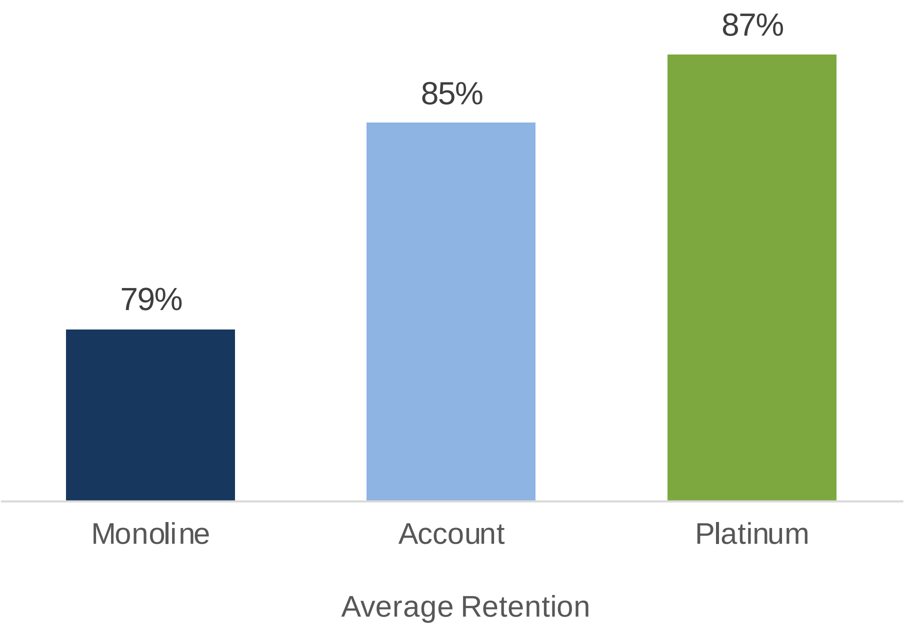
- Unparalleled insights across distribution landscape to enhance economics with best agents, as they focus on operational efficiency and modernizing their businesses
- Continuous product development across the business
  - Completed launch of Hanover Prestige across Personal Lines footprint
  - Launched Insurago to connect digitally inclined micro and small customers with our agents
  - Expansion of specialty capabilities
- Investing in innovation across the insurance value chain
  - Digital claims handling, photo-appraisal platforms and self-serve tools
  - Leveraging third-party data to streamline agency and customer interactions

The Hanover Insurance Group®

Highly profitable, whole account-oriented Personal Lines portfolio

2018 net premiums written growth of 8% to $1.8 billion

Improving retention with
Account and Hanover Platinum Experience offering



Business characteristics

Where we are today

- Whole account, value-oriented offering with customer base more resilient to commoditization
- Account business offers higher lifetime value
- Local operating model well established with best distributors
- Account business represents approximately 84% of portfolio and new business, Hanover Platinum product makes up ~44% of portfolio

Where we are going

- Existing agency penetration should fuel profitable growth for customers with complex insurance needs
- Select new agency appointments in under-penetrated geographies
- Leveraging agent-centric distribution strategy to grow higher profit business, $6-$8 billion of new emerging affluent business within footprint

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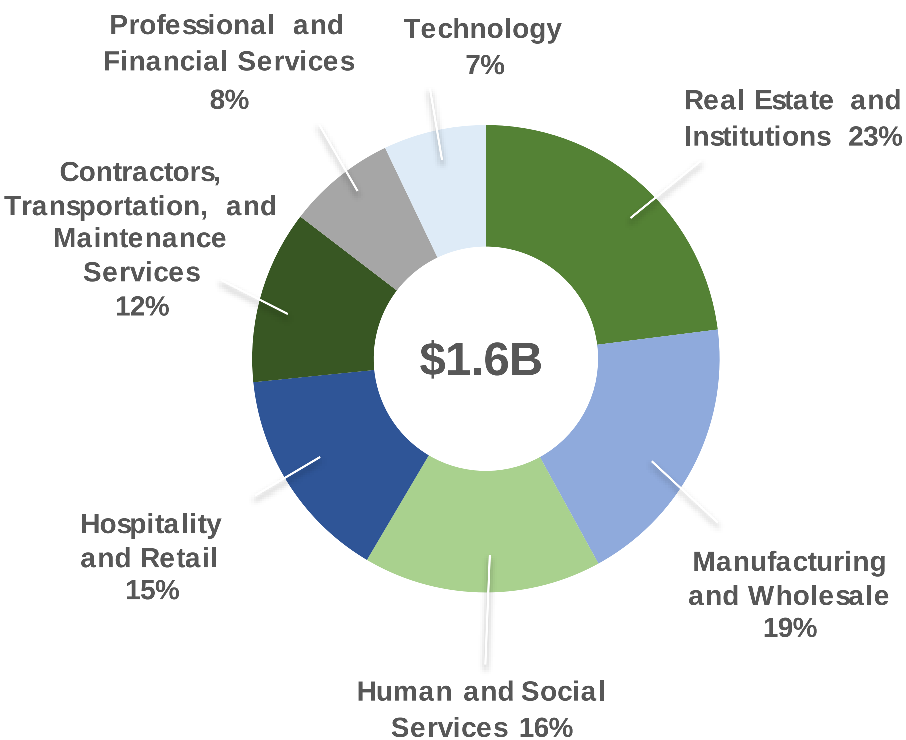
Market leading Core Commercial offering

2018 net premiums written



Business characteristics

Where we are today

- Diversified capabilities focused mainly on the lower-end of risk and account size spectrum
- Distinctive industry specialization
- Underwriting flexibility: point of sale and non-point of sale capabilities
- Market insight into opportunities due to Agency Insights tool
- Small account size value oriented portfolio

Where we are going

- Gain further agency penetration
- Create more attractive product packages to better serve our agents:
  - Strengthen Small Commercial product by adding specialty coverages
  - Middle Market appetite expansion in targeted areas

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Strong and leverageable distribution platform

Agent segmentation / The Hanover focus

Segment	# of Agents in U.S.	# of Target Agents	The Hanover share
1. Top 3 brokers	3	Limited	
1a. Top 4 – 10 brokers	7	7	4%
2. Top 200	200	150	5%
3. Regional agents	1,500	500	8%
4. Mid-sized agents	≈7,000	1,000	16%
5. Small agents	≈26,000	450	22%
Total	**≈35,000**	**≈2,100**	**7%**

Opportunities ahead

100% committed to our Independent Agents

- Dedicated to the success of 2,100 of the industry's best independent agents
- Offering franchise value
- Providing local expertise & underwriting authority
- Continued evolution of tools and insights that help agents improve their economics

Focused franchise, broad coverage:

- 45% of our premium and strong momentum with the industry's Top 200 agents
- Access to 40% of U.S. independent agency premium

Substantial headroom:

- 7% "addressable" market share
- 4% market share with the Top 10 U.S. agents

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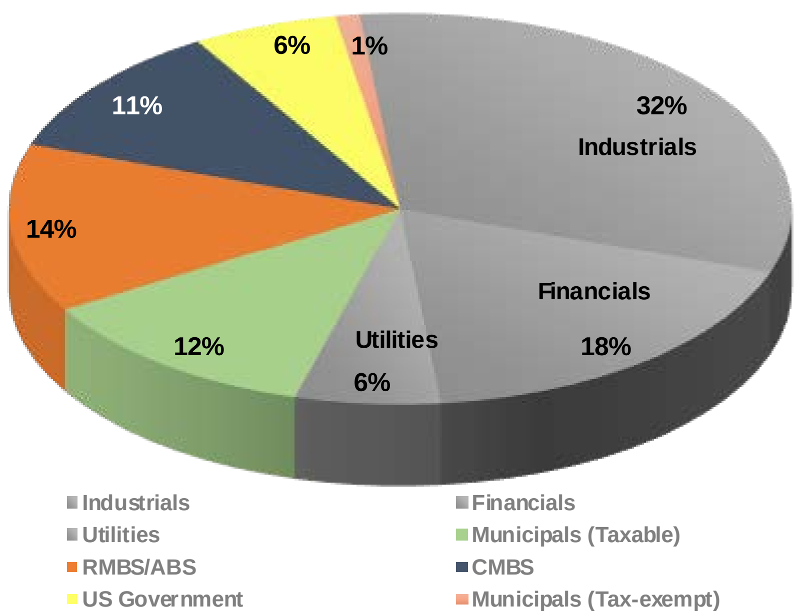
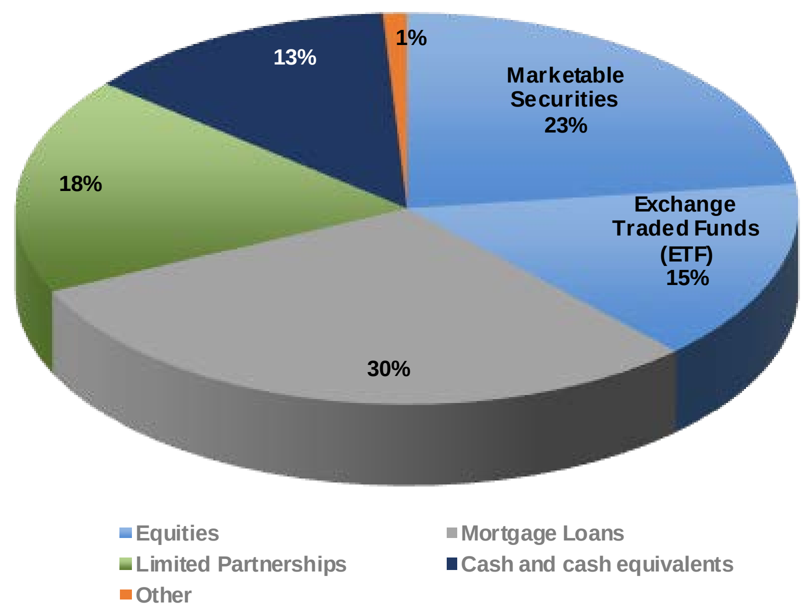
Investment Portfolio Holdings – Total Invested Assets $8.0B

June 30, 2019

Fixed Maturities $6.6 Billion



Equities and Other $1.4 Billion



Fixed Income Characteristics:

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

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End notes

(1) Adjusted Operating Return on Average Equity ("Adjusted Operating ROE") is a non-GAAP measure. See the disclosure on the use of non-GAAP measures throughout this presentation under the heading "Non-GAAP Financial Measures." Adjusted operating ROE is derived from operating ROE, which is calculated by dividing full year 2018 operating (see end note (6)), by average shareholders' equity, excluding unrealized appreciation (depreciation) on fixed maturity investments, net of tax, for the stated period. 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 and "the un-deployed equity" for measurement periods post-close and net unrealized appreciation (depreciation) on fixed maturity investments, net of tax. For the calculation of adjusted operating ROE for three months ended June 30, 2019, annualized operating income is reduced by the annualized net investment income related to the un-deployed equity attributable to Chaucer, net of tax. Operating ROE and Adjusted Operating ROE should not be construed as substitutes for GAAP ROE. 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 shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, for the beginning, ending, and interim (if applicable) quarters are used. For the calculation of Adjusted Operating ROE, the average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, and "equity attributable to Chaucer" for measurement periods prior to the close, or "the un-deployed equity" for measurement periods post-close, net of tax, for the beginning, ending, and interim (if applicable) quarters are used. See calculations in table on the following page, including the calculation of GAAP ROE using net income and average shareholders' equity without adjustments.

	Period ended				
	December 31, 2017	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
Total shareholders' equity (GAAP)	$2,997.7	$2,913.1	$2,939.8	$2,982.4	$2,954.7
Less: net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	205.4	0.3	(48.8)	(74.0)	(27.2)
Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	$2,792.3	$2,912.8	$2,988.6	$3,056.4	$2,981.9
Less: Pre-sale, equity attributable to Chaucer; or post-close, un-deployed equity	614.6	614.6	614.6	614.6	656.6
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	$2,374.0	$2,441.8	$2,325.3
Average shareholders' equity					$2,957.5
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax					$2,946.4
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					$2,323.4

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End notes

(1) Continued.

($ in millions)	Period ended March 31, 2019	Period ended June 30, 2019
Total shareholders' equity (GAAP)	$2,927.0	$2,941.1
Less: net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	90.7	192.3
Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	2,836.3	$2,748.8
Less: un-deployed equity	(406.6)	(256.6)
Adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and un-deployed equity	$2,429.7	$2,492.2
Average shareholders' equity (GAAP)		$2,934.1
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax		$2,792.6
Average adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and un-deployed equity		$2,461.0

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End notes continued

(1) Continued.

"NA" = Not applicable

Net Income ROE	Year ended December 31, 2018	Three months ended June 30, 2019
Net income (GAAP)	$ 391.0	$ 74.0
Annualized net income* (non-GAAP)	NA	296.0
Average shareholders' equity (GAAP)	2,957.5	2,934.1
Return on average equity	13.2%	10.1%
Operating income ROE (non-GAAP)		
Operating income after taxes	$ 292.1	$ 77.7
Annualized operating income, net of taxes* (end note (6))	NA	310.8
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	2,946.4	2,792.6
Operating return on average equity	9.9%	11.1%
Adjusted operating income ROE (non-GAAP)		
Operating income after taxes	$ 292.1	$ 77.7
Annualized operating income, net of taxes* (end note (6))	NA	310.8
Less: Annualized net investment income related to un-deployed equity attributable to Chaucer, net of tax**	NA	(11.8)
Annualized operating income, including adjustment for net investment income related to un-deployed equity attributable to Chaucer, net of tax	292.1	299.0
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	2,323.4	2,461.0
Adjusted operating return on average equity	12.6%	12.2%

*For the three months ended June 30, 2019, 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 June 30, 2019, annualized net investment income related to undeployed equity attributable to Chaucer is calculated by multiplying the un-deployable equity attributable to Chaucer held through the period ($406.6 million) by the total annualized pre-tax yield, net of tax.

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End notes continued

(2) 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 pages 8 and 9 of the Fourth Quarter 2018 Financial Supplement.

(3) Current accident year loss and LAE ratio, excluding catastrophe losses, and developed accident year loss ratio, excluding catastrophe losses, are non-GAAP measures, which are equal to the loss and LAE ratio ("loss ratio"), excluding prior-year reserve development and catastrophe losses and, in the case of "developed" accident year loss ratio, includes reserve development which presents in later years, but is attributable to the earlier accident year. 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 ratio, excluding catastrophe losses, and the developed accident year loss ratio, excluding catastrophe losses:

	Years ended December 31,				
	2014	2015	2016	2017	2018
Total loss and LAE ratio (GAAP)	65.8%	64.8%	67.2%	64.7%	64.0%
Less:					
Prior-year reserve development	0.2%	0.7%	6.2%	-	-
Catastrophe ratio	5.6%	4.5%	3.1%	6.4%	5.2%
Current accident year loss ratio, excluding catastrophe losses	60.0%	59.6%	57.9%	58.3%	58.8%
Development on respective accident year	(0.4%)	(0.4%)	(0.4%)	0.2%	-
Developed accident year loss ratio, excluding catastrophe losses	59.6%	59.2%	57.5%	58.5%	58.8%

	Three months ended				
	June 30, 2018	September 30, 2018	December 31, 2018	March 31, 2019	June 30, 2019
Total loss and LAE Ratio (GAAP)	63.5%	63.1%	65.3%	63.9%	64.6%
Less:					
Prior-year reserve development ratio	-	-	-	-	-
Catastrophe ratio	5.6%	4.2%	4.6%	3.6%	5.4%
Current accident year loss ratio, excluding catastrophe losses	57.9%	58.9%	60.7%	60.3%	59.2%

(4) The expense ratio is reduced by installment fee revenues for purposes of the ratio calculation.

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End notes continued

(5) Combined ratio, excluding catastrophes, and current accident year combined ratio, excluding catastrophes are non-GAAP measures. The combined ratio, excluding catastrophes is equal to the combined ratio, excluding catastrophe losses. The current accident year combined ratio, excluding catastrophes is equal to the combined ratio, excluding catastrophe losses and prior-year reserve development. These measures 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 and the current accident year combined ratio, excluding catastrophe losses:

	Three months ended				
	June 30, 2018	September 30, 2018	December 31, 2018	March 31, 2019	June 30, 2019
Total combined ratio	95.5%	95.1%	97.4%	95.8%	96.1%
Less: Catastrophe loss ratio	5.6%	4.2%	4.6%	3.6%	5.4%
Combined ratio, excluding catastrophe losses	89.9%	90.9%	92.8%	92.2%	90.7%
Less: Prior-year reserve development ratio	-	-	-	-	-
Current accident year combined ratio, excluding catastrophe losses	89.9%	90.9%	92.8%	92.2%	90.7%

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End notes continued

(6) Operating income (loss) is a non-GAAP measure. Operating income (loss) before taxes, as referenced in the results of the three business segments, is defined as, with respect to such segment, operating income (loss) before taxes and interest expense. The following table provides the reconciliation of operating income (loss) to the most directly comparable GAAP measure, income (loss) from continuing operations, and to net income:

	Year ended December 31, 2018	Quarter ended June 30, 2019	
($ in millions, except per share data)	$	$	Per Share (Diluted)
OPERATING INCOME (LOSS)			
Commercial Lines	$265.7	$72.8	
Personal Lines	146.2	31.7	
Other	(5.4)	2.5	
Total	406.5	107.0	
Interest expense	(45.1)	(9.3)	
Operating income before income taxes	361.4	97.7	$2.37
Income tax expense on operating income	(69.3)	(20.0)	(0.49)
Operating income after income taxes	292.1	77.7	1.88
Non-operating items:			
Net realized gains (losses) from sales and other	(2.7)	0.8	0.02
Net change in fair value of equity securities	(43.4)	11.7	0.29
Net other-than-temporary impairment losses on investments recognized in earnings	(4.6)	(0.4)	(0.01)
Loss from repayment of debt	(28.2)	-	-
Effect of new tax regulations on Chaucer gain on sale	-	(5.6)	(0.14)
Income tax benefit on other non-operating items	25.8	0.8	0.02
Income from continuing operations, net of taxes	239.0	85.0	2.06
Discontinued Operations (net of taxes)			
Sale of Chaucer business	131.9	(9.9)	(0.24)
Income (loss) from Chaucer business	20.0	(0.2)	(0.01)
Income (loss) from discontinued life business	0.1	(0.9)	(0.02)
Net income	$391.0	$74.0	$1.79
Weighted average shares outstanding			41.2

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End notes continued

(7) 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 5.7%, excluding these initiatives" on page 26):

Consolidated	June 30 2018	June 30 2019	Growth
Consolidated net premiums written	$1,094.2	$1,137.8	4.0 %
Less:			
Commercial Auto	83.9	77.9	(7.2)%
Program Business	61.5	57.3	(6.8)%
Net premiums written, excluding Commercial Auto and Program Business	$948.8	$1,002.6	5.7 %

Commercial Lines	June 30 2018	June 30 2019	Growth
Commercial Lines net premiums written	$629.6	$644.7	2.4 %
Less:			
Commercial Auto	83.9	77.9	(7.2)%
Program Business	61.5	57.3	(6.8)%
Net premiums written, excluding Commercial Auto and Program Business	$484.2	$509.5	5.2 %