Hanover Future Forward — A Winning Strategy

Investor Day

September 23, 2021

The Hanover Insurance Group®

Agenda

9:00	**Introduction** *Oksana Lukasheva*
9:00 – 9:30	**A Winning Strategy Drives Superior Performance** *Jack Roche*
9:30 – 10:00	**Delivering Broad and Specialized Capabilities in Core Commercial and Personal Lines** *Dick Lavey*
10:00 – 10:20	**Creating a Critical Growth Lever with Specialty** *Bryan Salvatore, Helen Savaiano and Sarah Medina*
10:20 – 10:30	**Break**
10:30 – 11:00	**Q&A** *Jack Roche, Jeff Farber, Dick Lavey and Bryan Salvatore*
11:00 – 11:15	**Innovating Across The Value Chain** *Will Lee*
11:15 – 11:30	**Driving Value Through a Claims Operating Model of The Future** *Mark Welzenbach*
11:30 – 11:45	**Capitalizing on a Solid Financial Foundation** *Jeff Farber*
11:45 – 12:15	**Q&A** *Jack Roche, Jeff Farber, Will Lee and Mark Welzenbach*

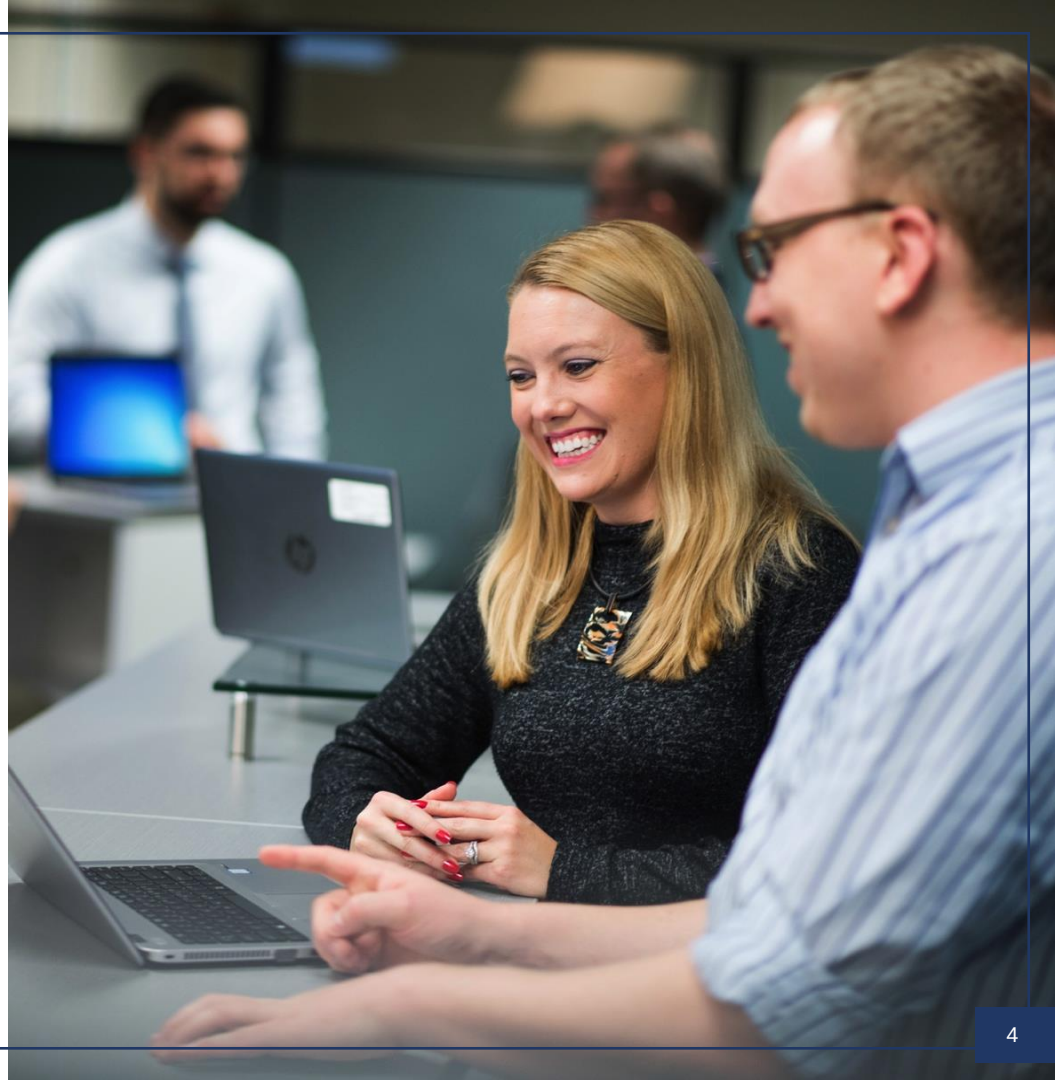
Forward-looking Statements and Non-GAAP Financial Measures

Certain statements in this presentation and comments made by management throughout the company's investor day are forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. This presentation also includes references to financial measures that are derived from, but are not, measures presented in accordance with generally accepted accounting principles (GAAP). Please see the final pages of this document for important information regarding forward-looking statements and, to the extent available without unreasonable efforts, reconciliations of non-GAAP financial measures to the most directly comparable GAAP measures, and cautions regarding reliance on both forward-looking statements and non-GAAP financial measures used throughout the company's investor day. This presentation and the content thereof must be read and interpreted in conjunction with information regarding risk factors and forward-looking information as set forth in this presentation and in the company's most recently filed reports on Forms 10-K and 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 hanover.com under "Investors".

A Winning Strategy Drives Superior Performance

Jack Roche
President and Chief Executive Officer

The Hanover Insurance Group®



Key Takeaways

1. **Differentiated strategy accelerates growth**
Growing market share with our consumer- and agent-centric approach, while leveraging our diverse product set and proprietary analytical tools

2. **Specialized capabilities are a critical growth driver**
Further developing specialized capabilities across our business portfolio to position us for continued growth, including expansion of our specialty commercial business through new product solutions

3. **Innovation and data analytics ensure competitiveness and consistent top performance**
Deploying new capabilities and tools to enhance growth opportunities, increase operating efficiency and further improve claims expenses as the industry undergoes rapid change

4. **Rigorous financial management enhances shareholder value**
Building shareholder value and driving broad-based profitability through book value growth, delivering top-quartile operating ROE[(1)] (~14%) and rigorously managing capital to invest in our most profitable opportunities – building on our strong track record

5. **ESG focus builds sustainable organization**
Continuing our sustainability journey and focusing on human capital development, enterprise risk management and climate change

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

A Balanced, Focused and Specialized Commercial and Personal Insurer

$4.6B

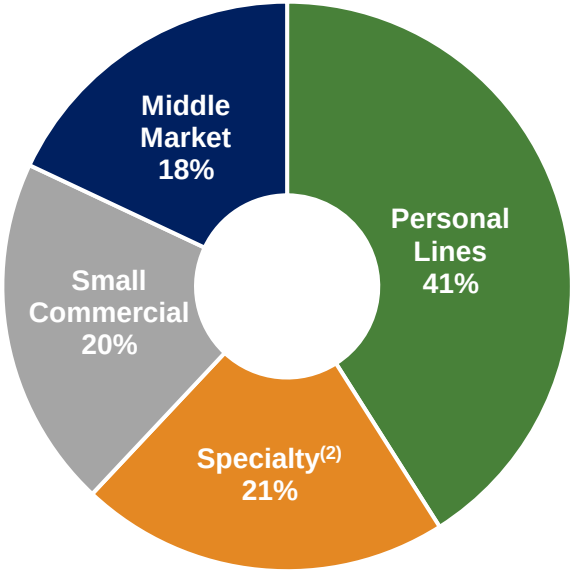
2020 Net Premiums Written (NPW)

$4.7B

Market Capitalization*

"A"

Financial Strength**



4,300

Employees

2,110

Agency Partners

*As of close of trading on September 17, 2021
**AM Best and S&P

Successfully Executing on Our Ambitious 2017 Agenda

Execution track record drives conviction in our new goals

	2021 Goals (What We Said in 2017)	What We Expect to Achieve in 2021
Operating ROE	11-12%	~12.5% Normalized Run Rate*
Book Value per Share	$100 per share	$95.48 per share[3] as of Q2'21 *(Adjusted for special dividends)*
Expense Ratio[4] Improvement	~1.5 point improvement	1.9 point improvement
Net Premiums Written CAGR	7 – 9%	5.2%** *(Intentional discipline in challenging market coupled with COVID-19)*
Operating EPS[5] Growth CAGR**	11-13%	~13% Normalized***

Strategic Achievements

- Broadened capabilities
- Expanded depth and breadth of agency network
- Replatformed technology and leveraged innovation
- Improved mix and sold non-strategic entity
- Efficiently returned capital

Forward-looking non-GAAP measures, including normalized run rate, 2021 forecast and 2026 forecast, are not reconciled because such measures and reconciliations are not available without unreasonable effort that would require the company to make estimates or assumptions about unidentified and unknown factors during the period referenced, such as catastrophes, economic and market conditions, and competitive factors, among others. References to return on equity ("ROE") and earnings per share ("EPS") on this page and throughout this presentation reflect operating ROE and operating EPS, which are non-GAAP measures.

*Normalized run rate for operating ROE is based on the company's best estimate for 2021, and includes normalization for catastrophe losses, favorable prior-year development, partnership income and current accident year losses, which were normalized primarily for COVID-19. In addition, this is consistent with the historical average over the past 3.5-year period.

**Represents domestic growth (excluding the impact of Chaucer, which was divested in 2018).

***Normalized operating EPS for 2016 includes normalization for unfavorable development and catastrophe losses. 2021 operating EPS forecast is based on the company's best estimate for 2021, and includes normalization for catastrophe losses, favorable prior-year development, partnership income and current accident year losses, which were normalized primarily for COVID-19

Differentiated business strategy supported by sustainability enablers

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Our Differentiated Strategy Presents a Sustainable Competitive Advantage

Competitive Advantages

Strategic Sustainability Enablers

Well Positioned in the Current, Highly Dynamic Environment

Market Dynamics	Our Strategic Focus
Distribution Consolidation	• Authentic partnership strategy • Actionable customer insights
Tech and Data Analytics	• Opportunity for agile innovation in every aspect of our business
Evolving Customer Expectations	• Customer-centric approach • Digital solutions
Migrating Profit Pools and New Risks	• Granular understanding of the market • Moving from reacting to anticipating loss trends
Dynamic Workforce	• Coveted magnet of talent • Highly engaged and agile workforce

A Distinctive Independent Agency (IA) Approach Driving Growth and Profitability

Three-Pronged Partnership Approach

Targeted Distribution

2,110 of the best agents in the U.S.

Franchise value

Broad and Relevant Underwriting Expertise

Specialized products

Local underwriting

Deep Business Insights

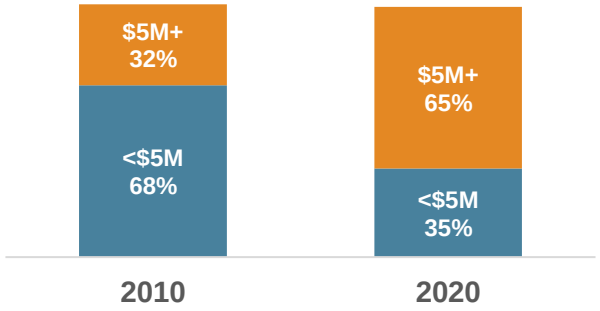
Consultative approach

$76 billion of target market data profiled

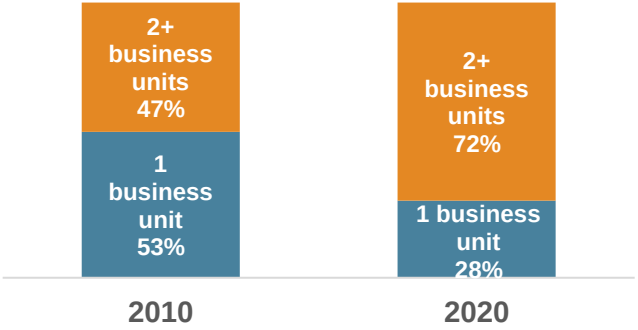
Increased Depth and Breadth Drive Improved Economics

Depth of Hanover Relationships

(Premium per Agent)



Breadth of Hanover Relationships



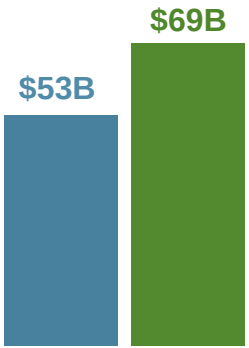
Increased relevance leads to higher retention and improved loss ratios

A Partnership Strategy Capitalizing on Our Agents' Growth and Consolidation Trends

Total Addressable Market

30%

GROWTH



	2016	2021
# of Agents	2,100	2,110

Tailwind

- Increased relevance and share with long-term partners as they grew
- Agency M&A activity increased addressable market access by >10%
- Increased leadership position, as our partners acquired 450 existing Hanover relationships
- Expanded geographic and product reach through 600 new agency appointments, increased market access by 10%
- Further opportunity to expand distribution points through targeted new appointments and agency consolidation benefits

Positioned to drive continued expansion in a consolidating market through organic growth, agency M&A and new agency appointments

A Highly Specialized and Differentiated Offering in Each Business Segment

Product offering increasingly relevant to our agency plant

	Small Commercial / Middle Market	Specialty	Personal Lines
2020 NPW	**$1.7B**	**$1.0B**	**$1.9B**
	✓ Targeted, profitable account business	✓ Account-based approach, integrated with core commercial[6]	✓ Account business (86%*) creates higher retention and lifetime value
	✓ Specialized products by industry class	✓ Retail agency focus	✓ Moving up-market to higher value

WHERE WE PLAY

**Account business is defined as two or more lines of coverage. Represents account business for the period ended June 30, 2021.*

Broad-Based Profitability and Diversification Providing Optionality for Future Growth

	Small Commercial / Middle Market	Specialty	Personal Lines
3-year Average Combined Ratio	95.7%	95.0%	94.7%

Furthering agency penetration

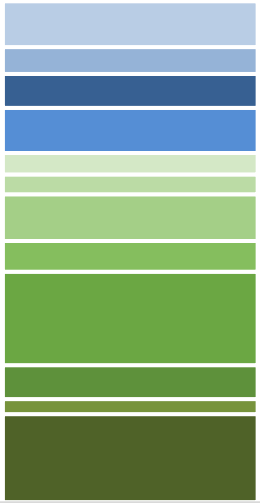
- Leveraging new platform
- Enhancing capabilities
- Expanding appetite
- Expanding product offerings
- Small/digital
- Specialty distribution
- Entering new states
- Moving upstream
- Leveraging digital

GROWTH OPPORTUNITIES

A Leading Specialized Commercial Insurer for Independent Agency Channel

$1.5 billion of highly specialized commercial business

$1.5 Billion 2020 Premiums Written



~$0.5B

$1.0B

4
Highly Specialized Core Commercial Industry Offerings

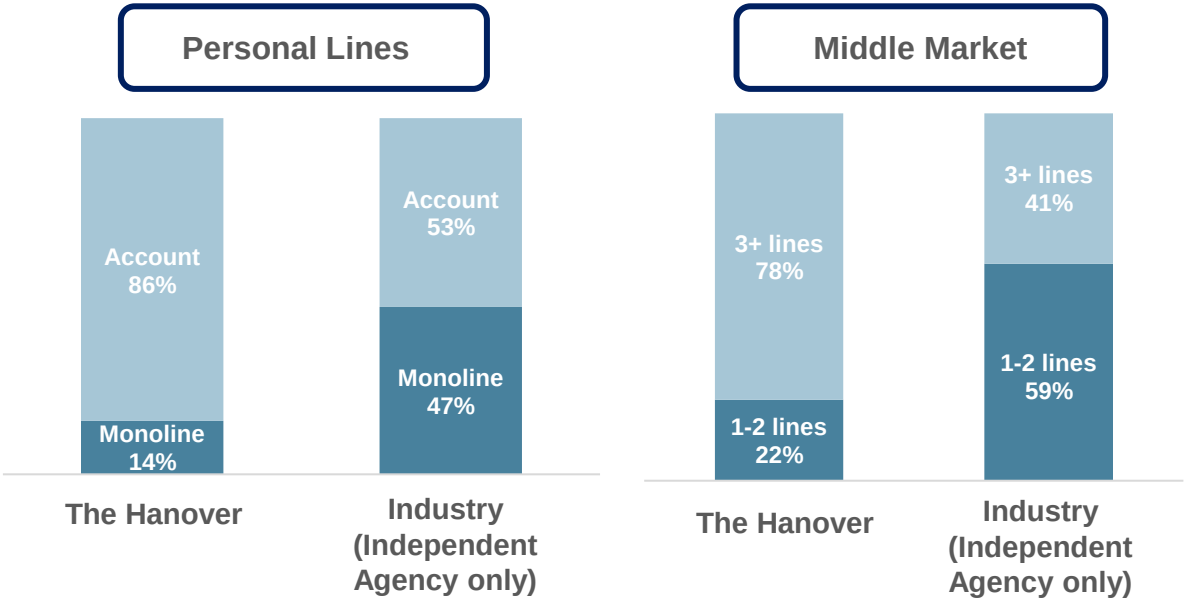
8
Distinct Specialty Businesses

Need for efficiency and modernization drives shift from product-centric to customer-centric focus

Delivering Holistic, Customer-Centric Solutions

Differentiated and relevant approach in an increasingly fragmented market

Premium Mix by Number of Lines Written With One Carrier



Benefits of customer-centric approach

- Ease of doing business
- Reduction in coverage gaps
- Better servicing needs and coordination
- Higher retention and account tenure

Confident that our success in personal lines account business can be achieved in sectors of commercial lines as agents strengthen customer focus

Source: The Hanover Agency Insight

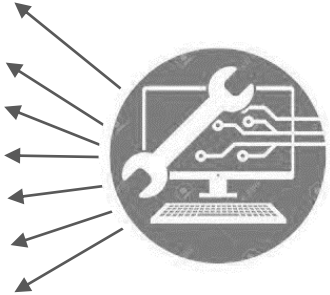
Technology Practice Case Study

Customer-centricity is a win-win-win for customers, agents and The Hanover

Average Technology Client

Illustrative

Product Lines	NPW
Commercial Multiple Peril ("CMP")/ Business Owners' Policy ("BOP")	**$4,950**
Professional Liability	**$2,250**
Cyber	**$1,200**
Workers' Comp	**$3,750**
Auto	**$2,100**
Umbrella	**$750**
Total Premium	**$15,000**
Additional Coverage/Services	
International coverage (180 countries)	
Risk control and engineering	
E-Risk hub	
Customer service center	
Dedicated claims team	



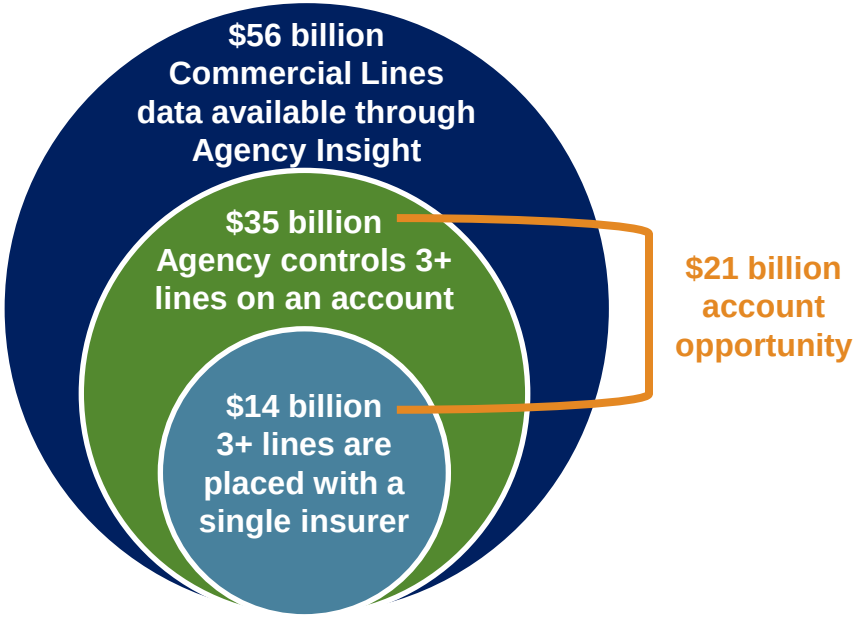
Sophisticated Risk Solutions

- ~$150 million in premiums written as of year-end 2020, and growing fast
- Industry focus: IT services, electronics, communications and life sciences
- Comprehensive coverage solution for small to mid-size businesses, with pre-revenue to $250 million in revenue being our sweet spot
- Average account size of $15,000
- Consistent sub-80s combined ratio

Winning in a Fragmented Market

Enhancing our growth and relevancy in sectors that become more account centric

Client Buying Patterns / Account Fragmentation



- Based on our Agency Insight data, $35 billion, or 63% of overall profiled commercial lines premiums are assembled by agents as accounts, but only $14 billion, or 25% are placed with the same insurer
  - This represents a $21 billion opportunity for The Hanover to help agents improve efficiencies by leveraging our insights and capabilities
- Account-centric industries typically include, among others:
  - Tech
  - Schools
  - Manufacturing
  - Media
  - Energy and Utilities
- The true market premium associated with such industries accounts for 45% of the commercial lines market (~$155 billion)

Source: The Hanover Agency Insight

Strategic business enablers to ensure sustainability

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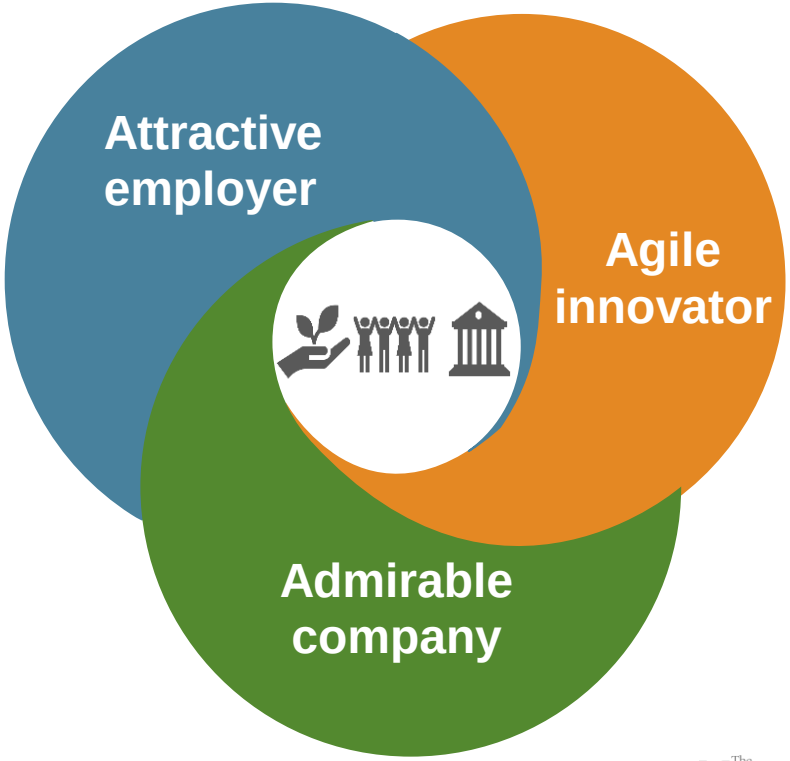
Strategic Sustainability Enablers are at the Heart of Our Hanover Identity

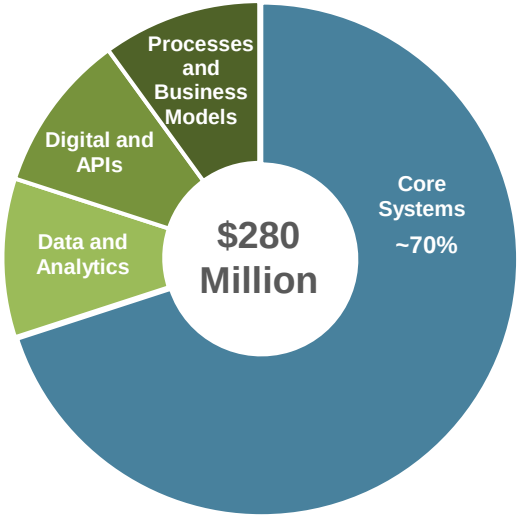
- In our dynamic times, great companies can only thrive if they are built on a sustainability foundation
- Effectiveness of our strategy, combined with strong talent, innovative approach and financial discipline, provide a sustainable foundation
- This is what has enabled our performance to date and will drive our future success

Sustainability Enablers

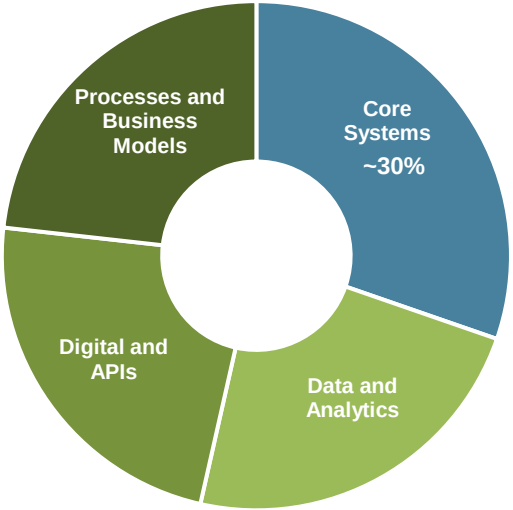


Technology Investments to Enhance Our Front-End Capabilities

2016 – 2020
Legacy Modernization



2021 and Beyond
Customer-Facing, High-Visibility Enhancements



Invested over $200 million to upgrade or replace nearly all core systems within our technology stack:

- Small commercial platform
- Personal Lines platforms
- Claims
- Billing, general ledger

Open-ended infrastructure allows for agility in future innovation and investments in R&D, with a focus on:

- Agent engagement and experience
- Digital customer experience
- New business sourcing models

Our Technology Transformation

Fundamentally changed how customers and agents experience The Hanover

PL Agent NPS score increased 20pts

Reduced quote time of Small CL product by 50%

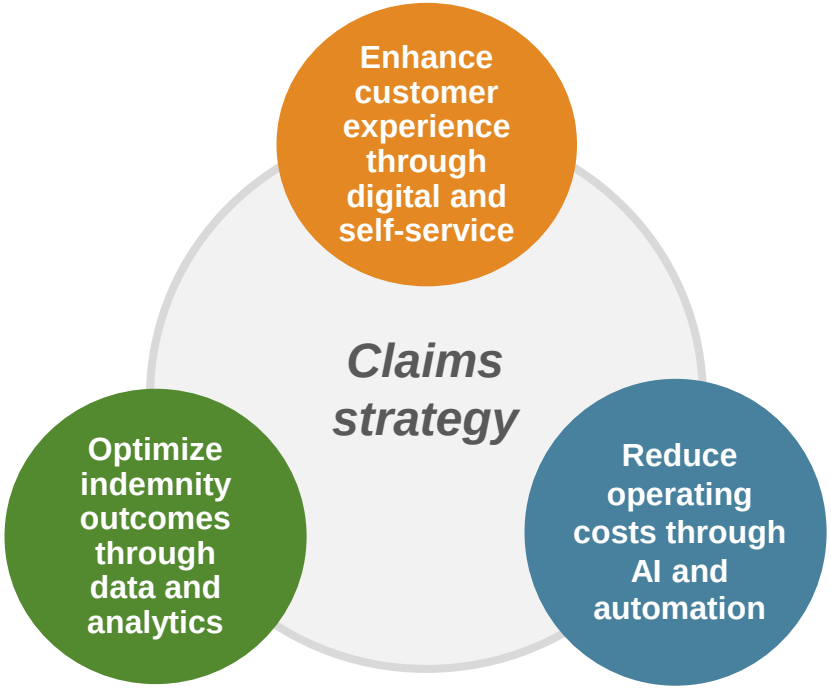
Prefill 65% of Personal Lines quote fields

Streamlined U/W applications

70% of claims leverage predictive analytics

Our technology investments have paid off

A Claims Organization Strongly Contributing to Earnings and Growth



- Technology and digital capabilities have yielded a ~60 basis point reduction in unallocated loss adjustment expense (“ULAE”) ratio between 2017 and 2020
- Over the next five years, pursuit of our claims strategy implementation should yield 80 to 100 basis point reduction in the loss adjustment expense (“LAE”) ratio

The Hanover Culture. Our Greatest Asset.

88%

of managers have received leadership development training

100%

of employees who can work remotely have flexibility in when and where they work

83%

Participation in annual United Way campaign, donating $1.5 million

Our CARE Values

8

Business resource groups for women and underrepresented populations

Recognized by Forbes

as one of America's best mid-size employers

Best place to work

for LGBTQ equality, Disability, Inclusion and Women

Highly engaged and agile workforce positions us well to compete in the dynamic environment and drives top-quartile growth and returns

A Sustainable Organization Built On Rigorous Financial Discipline and Governance

Financial Discipline

- Top-quartile returns with lower-than-average volatility
- Rigorous underwriting and reserving
- Strong balance sheet

Operating Sustainably

- Prudent risk management
- Long-term oriented
- Implementing initiatives to mitigate climate change risks, reduce energy use, carbon footprint and emissions

Robust Governance

- Separate CEO and Board chair
- All board members are independent, other than CEO
- 55%* gender, race or ethnically diverse board

Admirable, stakeholder-focused company

**Excluding CEO*

Well positioned to augment and deliver on our financial targets

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Ambitious, But Achievable Financial Targets for The Next Five Years

Long-Term Target

ROE ~14%

Our Long-Term Aspirational Goals

CAGR

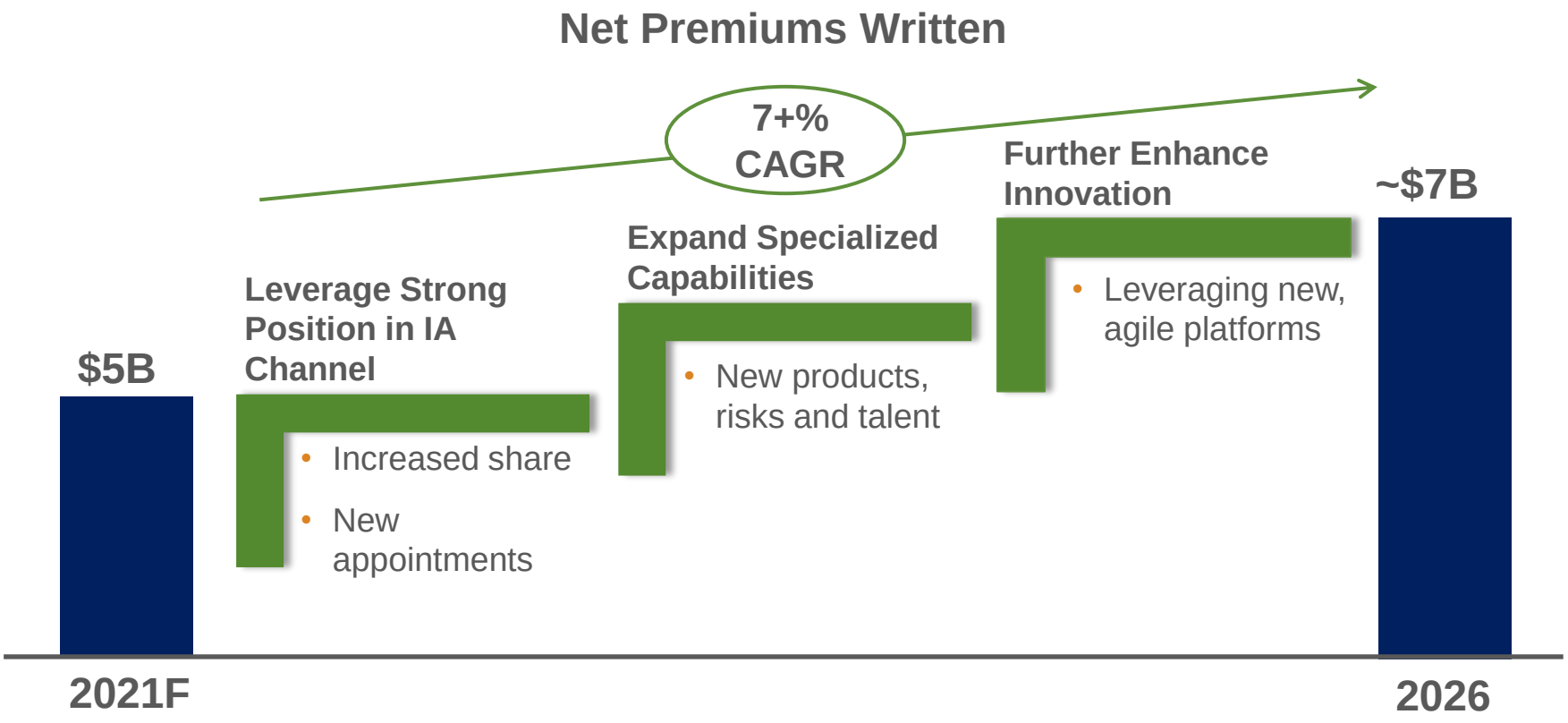
NPW 7+%

EPS 12-13%

BVPS 7-8%

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

A Differentiated Strategy that Positions us for Profitable Growth



For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Key Takeaways – A Winning Combination

1. Differentiated strategy accelerates growth
2. Specialized capabilities are a critical growth driver
3. Innovation and data analytics ensure competitiveness and top performance
4. Rigorous financial management enhances shareholder value
5. ESG focus builds sustainable organization

Delivering Broad and Specialized Capabilities in Core Commercial and Personal Lines

Dick Lavey

EVP, President, Agency Markets

The Hanover Insurance Group®

Key Themes

1. **Target returns**
Core Commercial and Personal Lines portfolios hitting target returns, enabling a robust growth strategy

2. **Major investments**
Significant investments -- over $100M -- in the last three years in products, platforms and analytics will fuel our relevancy in the market

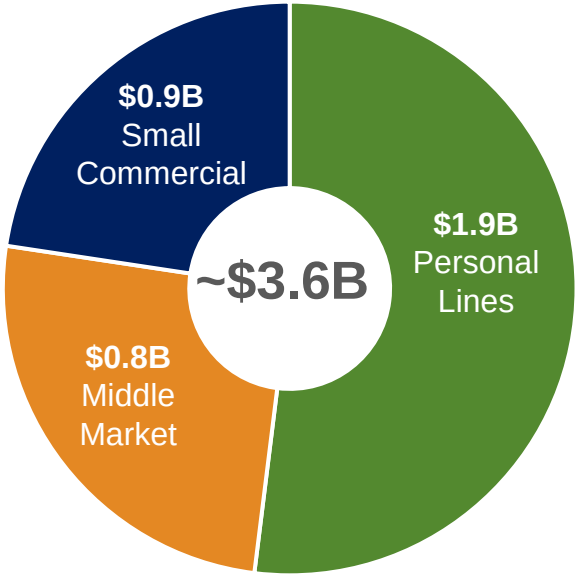
3. **Selective distribution**
A targeted, distinctive and deep distribution strategy coupled with our proprietary analytics tool, Agency Insight, enables us to drive informed growth

4. **Account strategy**
Unrelenting focus on account strategy and non-commoditized market segments with specialized and industry specific coverages

5. **Skilled portfolio management**
Our teams are skilled portfolio managers, balancing geography, product and industry mix

Specialized Core Property and Casualty Offering For The Best Agents in The Country

2020 NPW



2026 NPW

$5B

While delivering target returns

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

We are Well Positioned to Thrive In The Dynamic Market

Market Dynamics

- Distribution Consolidation
- Tech and Data Analytics
- Evolving Customer Expectations
- Migrating Profit Pools and New Risks
- Dynamic Workforce

Our Response

Highly Analytic and Consultative Approach

- To assist winning, consolidating agents

Modern Platform Architecture

- To enable agility

Digital Tools and Investments

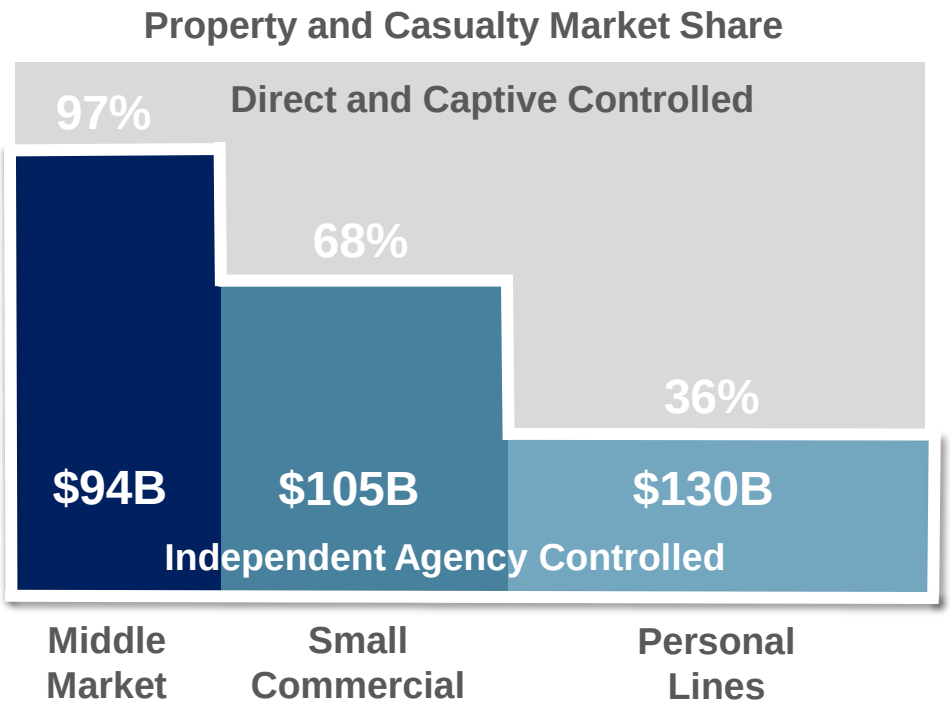
- To enable engagement with customers and agents

Proprietary Analytics and Third-Party Data

- To optimize risk selection and pricing

- Breadth and depth of agency relationships
- Pricing sophistication
- Insightful underwriting and risk selection

The Independent Agency Channel Continues to Show Resilience and Shifting Agency Dynamics Play Into Our Strengths



- **Independent agents control the majority** of our target Personal and Commercial Lines business AND their market share is **consistent** over time
- **Tech entrants are pivoting** from disruptors to enablers and becoming partners with the agency channel
- **The IA channel has attracted billions** in investments and >700 private equity investments in recent years*
- As larger distributors and acquirers look to achieve synergies from these investments, we expect they will look to **consolidate with their strongest, account driven markets**

*Source: McKinsey

Small Commercial

Our market-leading capabilities, operating model and portfolio performance position us to continue winning in this high-margin $105 billion market segment

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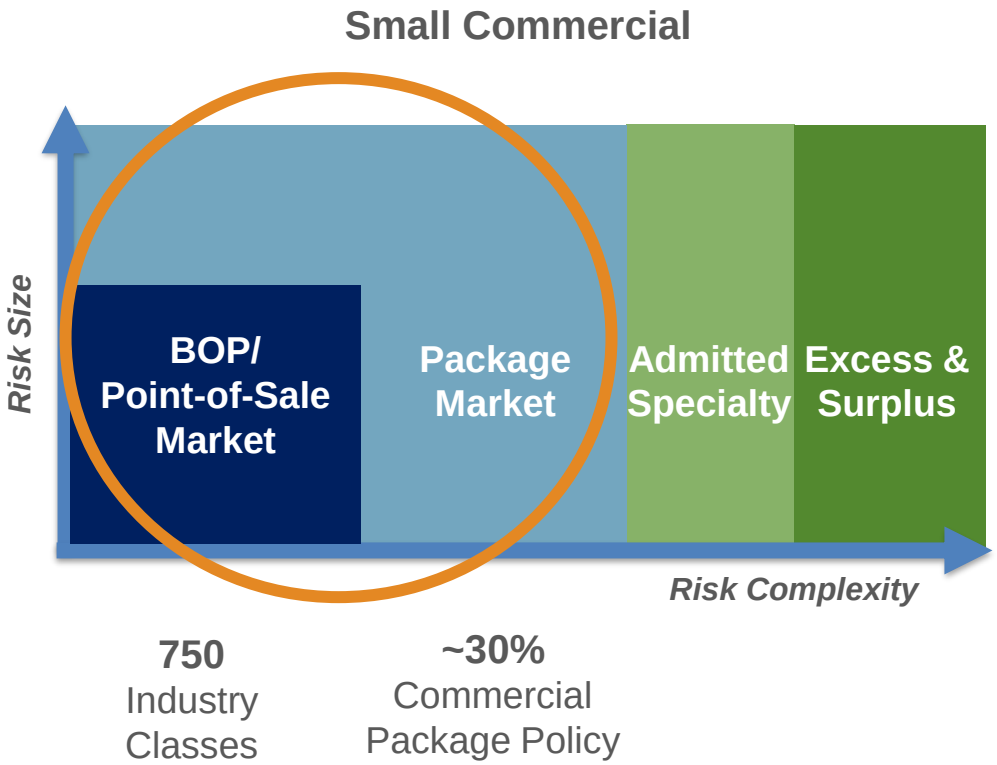
Small Commercial: Our Full-Spectrum Solution Positions The Hanover as One of The Broadest Markets in the Less-Than-50 Employee Segment



Our differentiation and competitive advantages

- **Full spectrum of product capabilities*** enable underwriting flexibility covering 70% of small commercial market, including small specialty
- **70% account business**, coming from 8,000 account managers
- **Market leading ease-of-doing-business** on new quoting and issuance platform
- **Distinctive industry specialization**
- **Rich agency insight** into opportunities due to unique agency analytical tools
- **Market-leading customer service center**, including larger accounts and specialty coverages
- **Full suite of digital self-service tools**

Products are not available in all jurisdictions. Please reference page 103 of this presentation for more information.

Small Commercial Growth Will Be Powered By Our New TAP Sales Platform

1

Enhanced agent quoting experience
TAP Sales

+

2

Upgraded product
Hanover Business Owners' Advantage

+

3

New policy admin platform
Policy decisions

New platform enables agile integration with third parties and digital distributors and platforms

	Old Platform	New Platform
Pricing tiers	4	**75**
Straight thru % *Below $5,000*	40%	**70%**
Classes	500	**750**
States	37	**49**
Avg. quote time	10 minutes	**5 minutes**
Data pre-fill	Limited	**Significant**

Expect growth lift of 2 – 3 points annually

Market Place Reaction Has Been Incredibly Positive — Signaling Excellent Upside in $105 Billion Market With Existing Agents

Massive improvement.

The **quote proposal** is one of my favorite things you changed – it's really **improved** and the defaults work well.

Pricing continues to look good. I like that you don't have to choose a company and the system picks the tier for you.

The Hanover has **cut** the quoting time in **half**.

Quote flow: very user friendly. I cannot underscore how much of an improvement this is over point-of-sale.

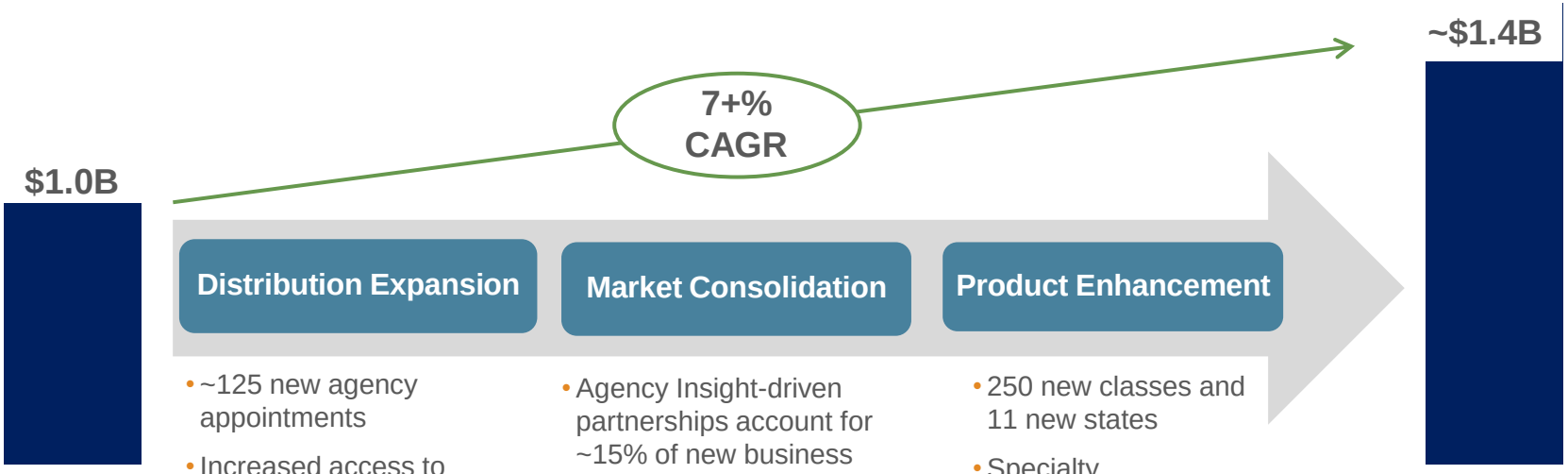
Best **quoting system** out right now!

This is the **easiest** and most **intuitive** and **logical** rating platform I have ever used.

This system is **faster** than XYZ Company, and you know their system is pretty good. **Yours is better.**

Small Commercial is Poised to Grow With $105 Billion Market Opportunity

Net Premiums Written



Distribution Expansion

- ~125 new agency appointments
- Increased access to market by $16 billion in recent years

Market Consolidation

- Agency Insight-driven partnerships account for ~15% of new business annually

Product Enhancement

- 250 new classes and 11 new states
- Specialty collaboration to drive portfolio balance and margin

TAP Sales Deployment

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Middle Market

Our highly relevant middle market appetite and set of capabilities are essential to our partnership strategy in this $94 billion market

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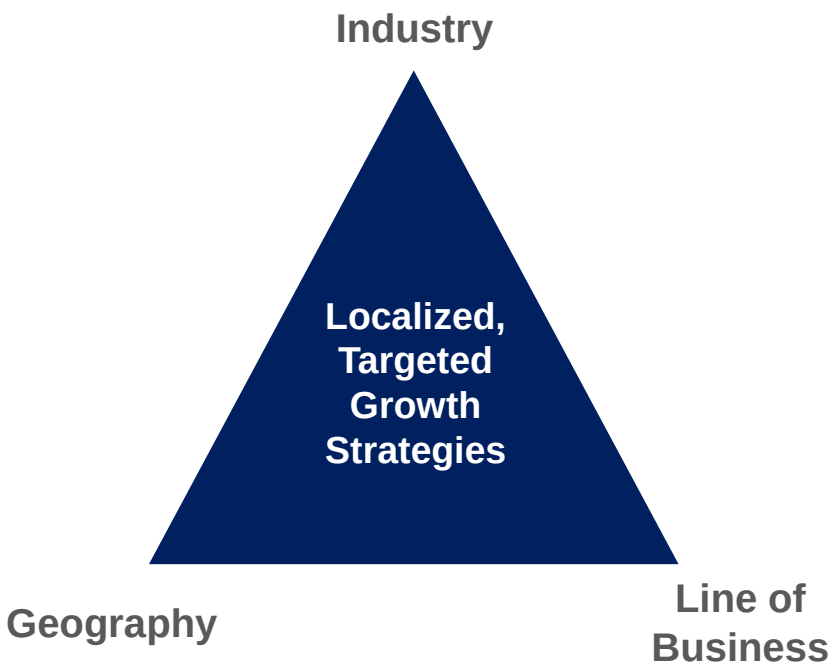
Middle Market: An Industry Targeted Approach is a Key Portfolio Management Lever



Our differentiation and competitive advantages

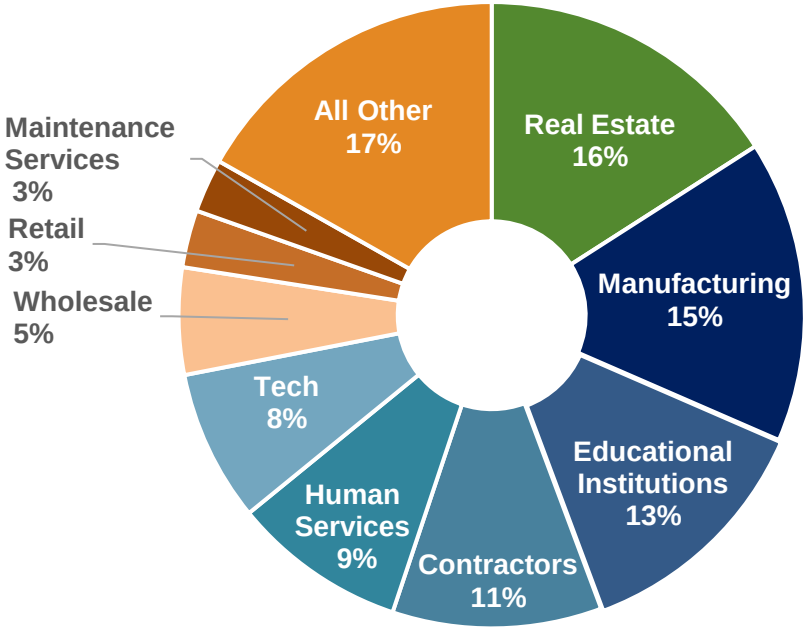
- Broad and relevant **suite of industry specific, specialized products and services** for firms with 50+ employees
- Deploy optimal **intersection of industry, line and geography** to assure long-term profitable growth
- Organized around **an account-oriented approach** to business (67% account business*)
- **Proprietary territorial and line of business pricing models**
- **Localized field structure** and insights create competitive advantage sourcing business
- **Leading claims and risk management capabilities** tailored to middle market customer needs

*As of December 31, 2020

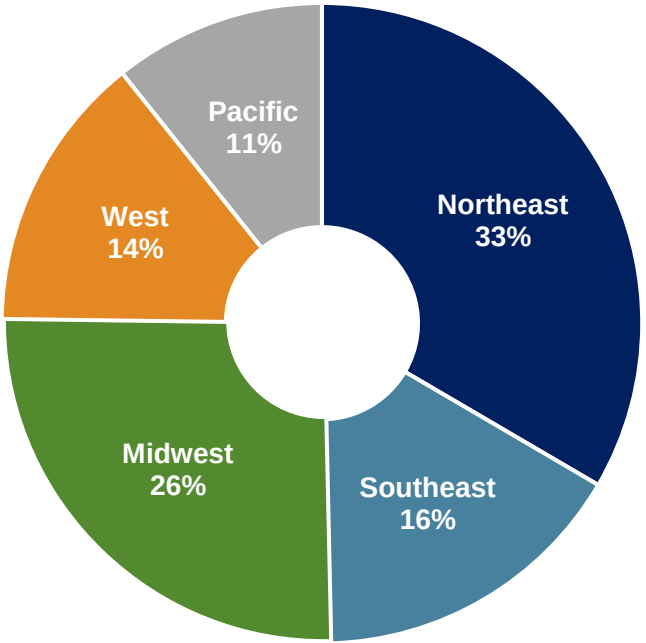
Our Highly Diversified Middle Market Portfolio Enables a Targeted Approach

2020 Premiums Written

Industry Class



Geography



Middle Market is Poised to Grow With ~$94 Billion Market Opportunity

Net Premiums Written

$860M

2021F

~5% CAGR

~$1.1B

2026

Targeted Account Pipelining — Agency Insight

- Agency Insight account information fed into Salesforce
- Disciplined approach

Targeted Industries and Geographies

Casualty-centric industries

- Technology
- Life sciences
- Construction
- Manufacturing

Account Rounding with Specialty

- Increased synergies across the enterprise through Specialty collaboration

Increased Underwriter Capacity

Tools, analytics and data support

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

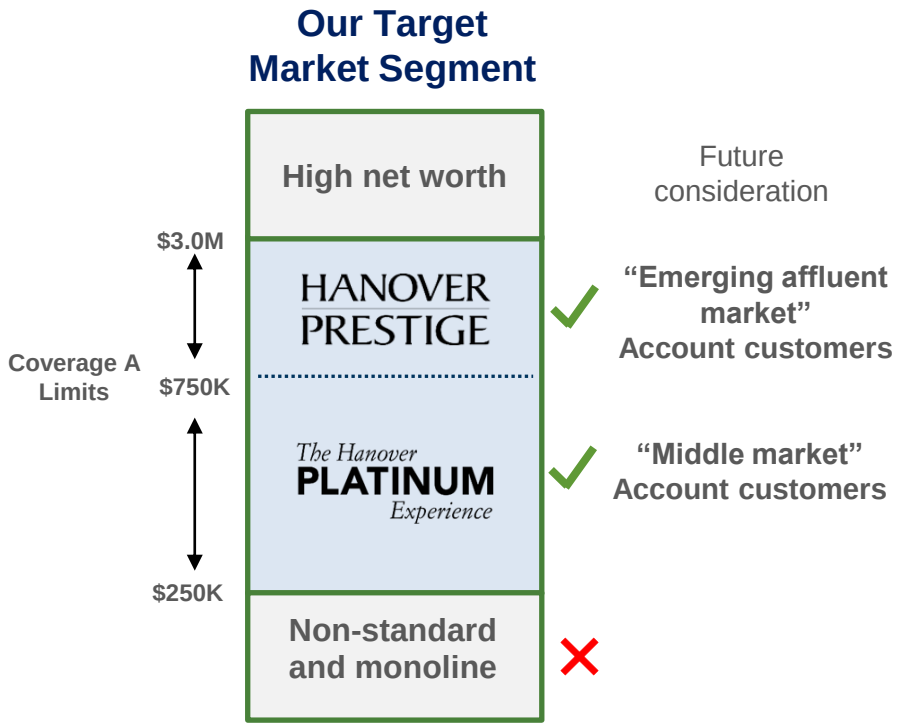
The Hanover Insurance Group®

Personal Lines

Our preferred customer and full account profile drive sustainable performance

The Hanover Insurance Group®

Personal Lines: Resilient, Account-focused Portfolio That Delivers Higher Lifetime Value

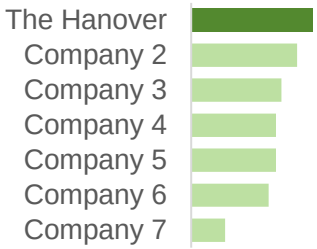


Our differentiation and competitive advantages

- **Full account (86%), value-oriented offering** with customer base more resilient to commoditization and protection-minded
- **95% with $100K/$300K auto liability limits** indicates preferred customer
- **An attractive 20-state footprint** with a strong IA presence
- **Ease of doing business** via modern Tap Sales platform
- **Intensely local in our approach** – from pricing, underwriting, agency engagement and claims handling
- **Direct access to underwriters** and state alignment creates a robust support ecosystem for agents

Our Entire Suite of Offerings — Product and Service — Enables Agents to Best Serve Their Account Customers

Account Profile



The Hanover writes more accounts than any competitor in our agencies

- Preferred customer profile
- Higher retention
- Higher lifetime value

Telematics

Expanding the offering beyond SafeTeen

- Increased pricing sophistication
- Preparing for the future of auto rating

Customer Self-Service

Customers have the option to interact with their insurance in the way they choose

Product Suite

The Hanover can meet all product needs of preferred account customers

- Market differentiation
- Higher retention
- Higher margin ancillary lines

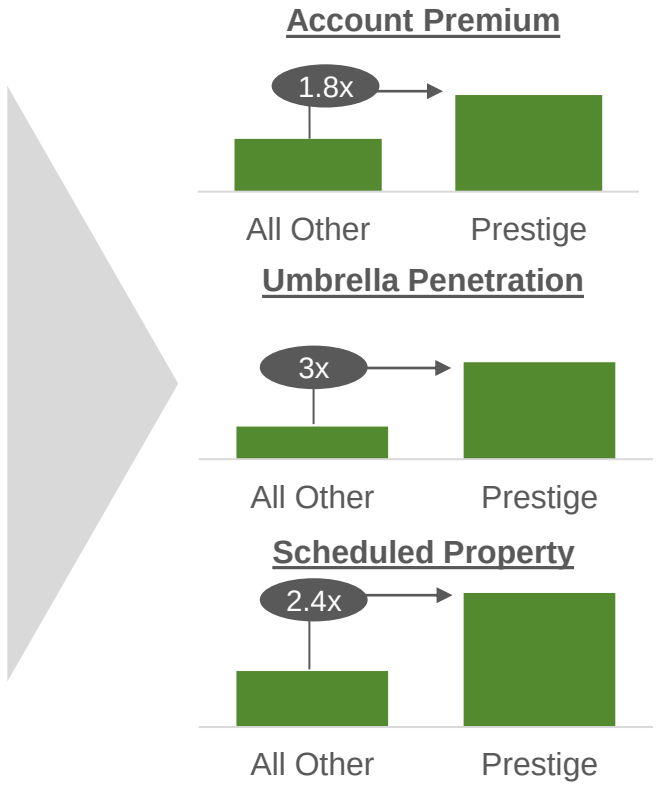
Prestige Market: Provides Access to $20 Billion "Up-market" Opportunity

Market Positioning

Excellent solution positioned between the national players and high net worth carriers for customers with more complex needs in the $750,000 - $3 million coverage A

We believe flexibility and choice are our distinct advantages for our agents and customers

Results



Personal Lines Poised to Grow with $65 Billion Market Opportunity

Net Premiums Written

Distribution Expansion

- Selectively appoint ~125 agents per year
- Added ~$7 billion of addressable market in recent years

Market Consolidation

- Industry-leading **book consolidation capabilities drive 15% of new business**

Product Enhancement

- Addition of high margin **ancillary coverages** that enhance core account retention
- **Prestige –** Targeting over $300 million in the next three years

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Our Core Commercial and Personal Lines Portfolios are Healthy, Thriving and Critical to Our Partnership Model

1. **Target returns**
   A financially sound business

2. **Major investments**
   Preparing us to accelerate into the future

3. **Selective distribution**
   Partnering with winning agents

4. **Account strategy**
   Targeting profitable customer segments

5. **Skilled portfolio management**
   Adapting to a dynamic environment

Creating a Critical Growth Lever with Specialty

Bryan Salvatore
EVP, President, Specialty

The Hanover Insurance Group®

Key Takeaways

1.

Specialty is a strategic differentiator for The Hanover
Our broad offering of capabilities for retail agents, close coordination across Commercial Lines and account-centric approach punctuate our distinct competitive advantages in the specialty marketplace

2.

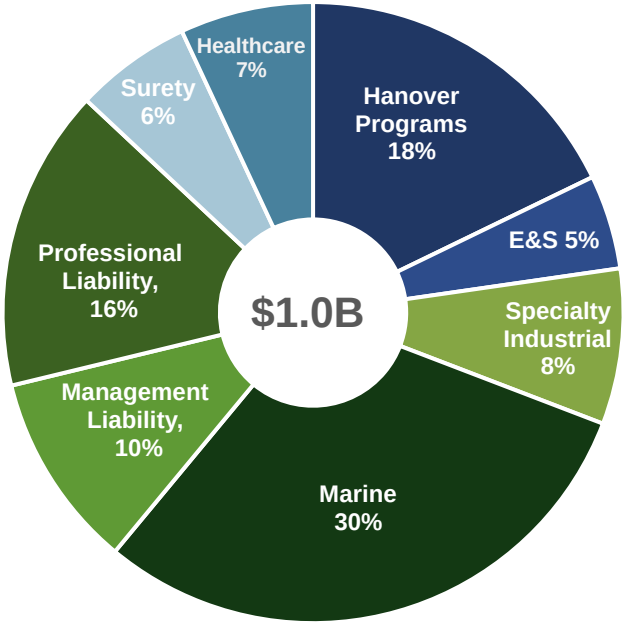
Over the last several years, our Specialty business has matured into a robust, diversified and profitable segment
Consistent and broad-based profitability opens multiple levers to accelerate our growth

3.

Specialty constitutes a critical growth driver for our organization going forward
We will continue to enhance our product capabilities, penetrate existing agents, proactively tap into specialist distribution and leverage core commercial relationships to grow Specialty into a $1.7 billion portfolio in the next five years

The Hanover's Specialty Business Delivers Relevant and Coordinated Solutions to Our Agents

2020
Net Premiums Written



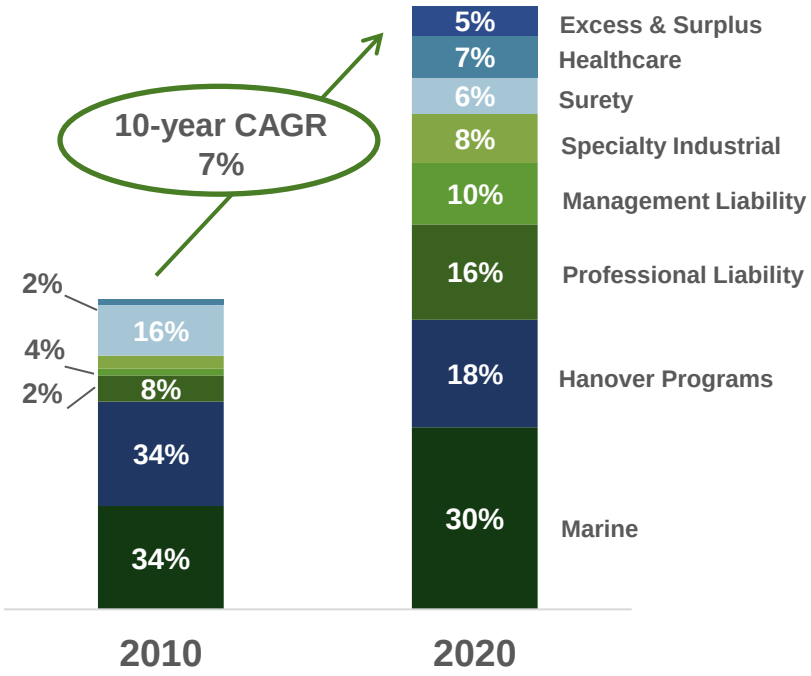
Our distinct and competitive advantages

- Most compelling offering in the market - targeted at retail agents
- Diversified product portfolio with 8 dedicated businesses and 18 product areas
- Focused mainly on the lower end of the risk and account-size spectrum
- Account-centric approach
- Coordinated agency relationship management
- Best-in-class customer service center

Continued focus ***on enhancing our product, service and digital capabilities through a Total Hanover approach*** *to drive profitable growth with agents*

We've Successfully Built a Robust Portfolio of Specialty Offerings Over the Past Decade

$1 billion diversified specialty business



Over the last 10 years, the Hanover's Specialty portfolio has:

- Doubled written premiums
- Expanded product capabilities
- Placed increased emphasis on new casualty offerings
- Leveraged acquisitions and new business start-ups to support expansion

Broad and Relevant Offering to Retail Agents and Specialists

- The Hanover is positioned as a top specialty carrier in the small to mid-size market with:
  - Capabilities aligned with agent needs
  - Market focus that tempers volatility
  - Total account solutions
  - Agent-facing digital capabilities
- Hyper-focused on lines of business where we have competitive relevance
- Distribution strategically aligned across our commercial practice positions us to capture growth opportunities

Breadth of specialty offerings:	Hanover	Regionals	Pure Specialty
E&S	✓	✓	✓
Marine	✓	*varies*	✓
Professional Lines	✓	*varies*	✓
Cyber	✓	*varies*	✓
Specialty Property	✓	⊘	✓
Large Accounts	⊘	⊘	✓
Political Risk & Trade Credit	⊘	⊘	✓
Public D&O	⊘	⊘	✓
Countrywide capability	✓	⊘	✓
Service center support	✓	⊘	⊘
Retail agency focused	✓	✓	⊘
Coordinated with core commercial lines	✓	✓	⊘

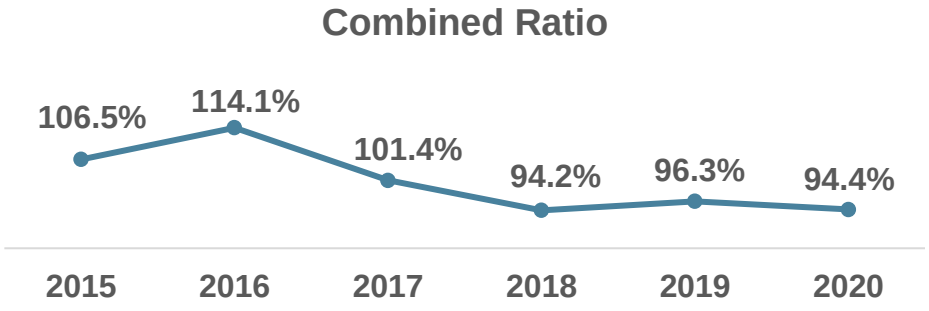
Higher Risk

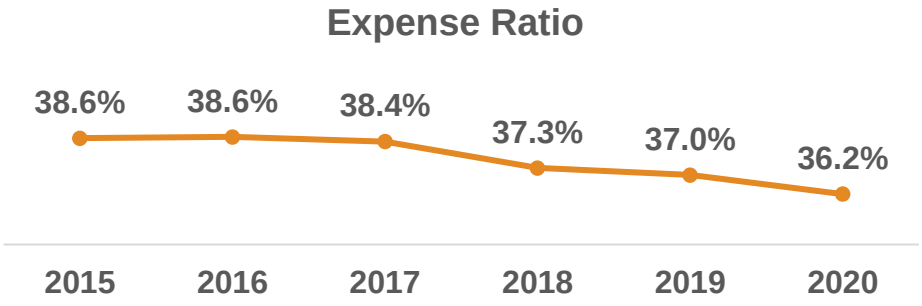
Our Portfolio Has Matured and Is Consistently Delivering Above-Target Profitability (ROE)

Meaningfully improved profitability profile of our Specialty business through:

- Specific profit actions
- Portfolio mix management
- Casualty portfolio development
- Disciplined reserving practices
- Granular cost management and harvesting growth leverage on expenses

Growth combined with rigorous management of portfolio mix, pricing and workflows continues to deliver accident year loss ratio and expense ratio improvement





Our ability to achieve broad-based profitability in Specialty allows multiple levers to accelerate growth going forward

Well Positioned in the Current Market Environment

Market Dynamics

Our Strategic Focus

Accelerate Growth

Deliver meaningful CAGR over the next five years

Optimize Distribution

Deepen retail, specialist and wholesaler partnerships

Advance Technology

Optimize performance through digital investment

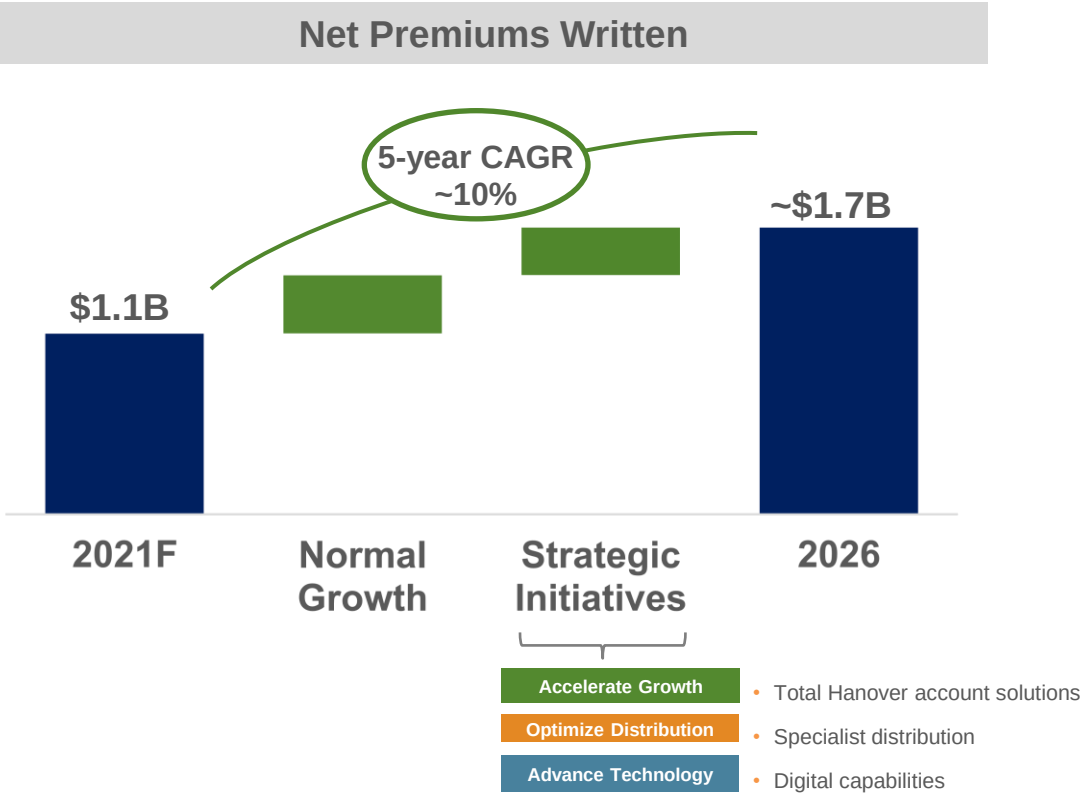
2026

- $1.7 billion+ portfolio
- Top-quartile ROE

Key Foundational Elements:

Talent | Portfolio Management | Enterprise Alignment | Pricing | Operational Efficiencies | Data-driven Decision Making

Strategic Priorities to Deliver Profitable Growth Over The Long-Term



- Expanding product capabilities focused on agent needs:
  - Financial institutions
  - Retail E&S
  - Cyber
  - Micro-to-small accounts
  - Specialty GL (coming soon)
- Expanding shelf space with agent partners
- Leveraging account strategy across Commercial Lines
- Growth in capital-efficient fronted business
- Specialist distribution strategy

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Management and Executive Liability Practice

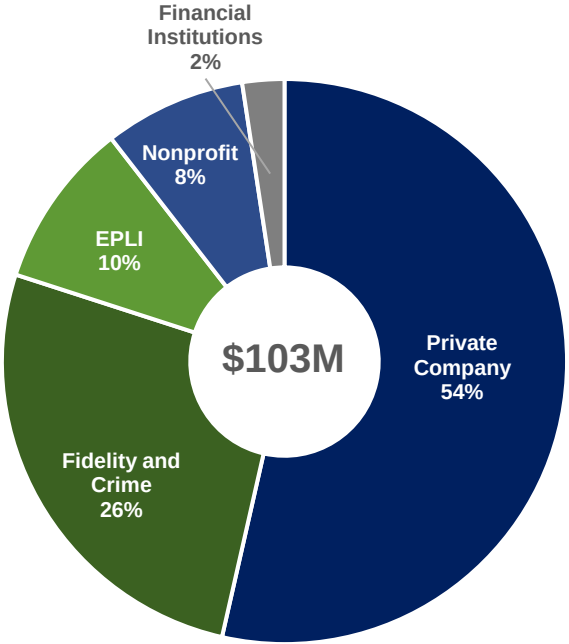
Helen Savaiano

President of Management Liability

Diversified Portfolio Delivering Historical Growth and Profitability

Management and Executive Liability Portfolio

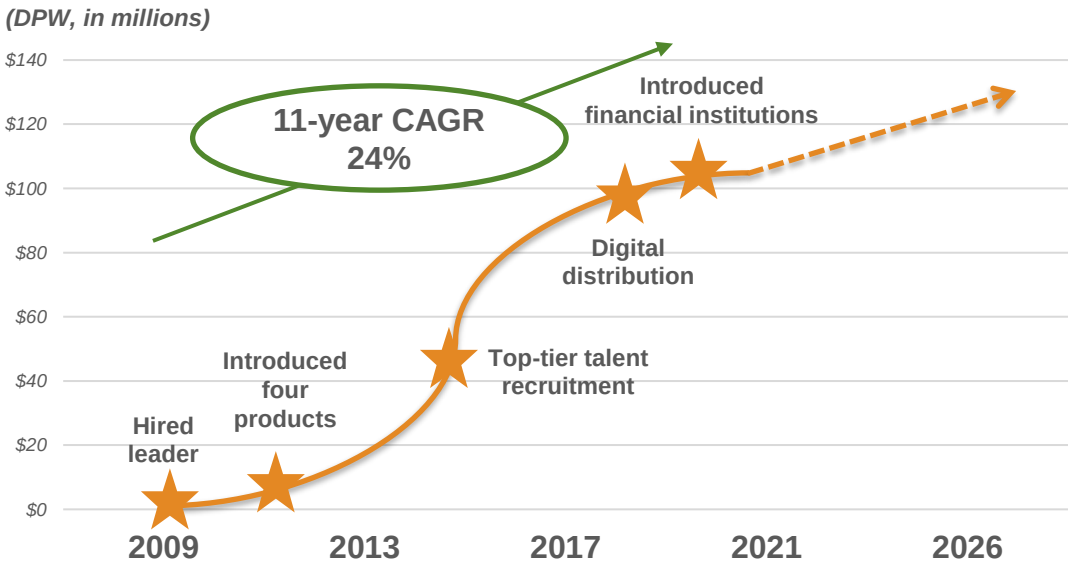
2020 NPW



- Began as a start-up in 2009, **12 years** in business
- **90.5%** average combined ratio over the last four years, delivering above-target ROE
- **$1B+** market opportunity with existing agents
- **33** best-in-class, regionally placed underwriters with an average of 15 years experience
- Digital distribution capabilities with 13% growth

From Start-Up to Mature,100% Organic Growth in Dynamic Marketplace

Continuously executing a thoughtful growth strategy with select Hanover agents



- Diverse portfolio of specialized products with national distribution
- Robust risk management, including educational and consultative offerings
- Resiliency through various market conditions and challenging economic cycles
- Growing digital investment and capabilities with select partners
- Granular view into $1+ billion of additional growth opportunities in existing products with existing agents

Professional Liability Practice

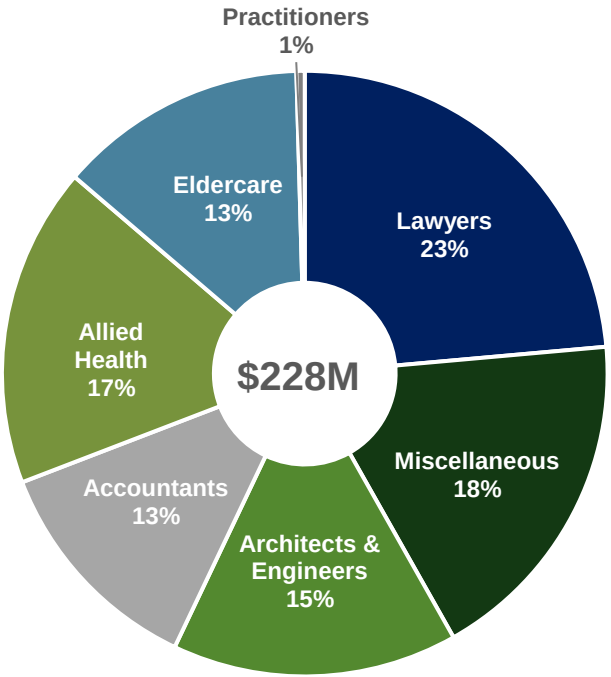
Sarah Medina

President of Professional Liability

Highly Diversified Portfolio Positioned to Accelerate Growth and Deliver Sustainable Profitability

Professional Liability and Healthcare Portfolio

2020 NPW



9.4% DPW CAGR since 2016

Above-target ROE

1,400+ retail, specialist and wholesale partners

73 best-in-class, regionally placed underwriters with an average of 15 years experience

$35M of premium written via online digital portals

Small Firm Focus Delivers Long-Term Profitability With Significant Headroom in Existing Agency Base

Small Firm Focus

Firm Size	Prof Liab.	Healthcare
Small	***86%***	***51%***
Mid-Large	14%	49%

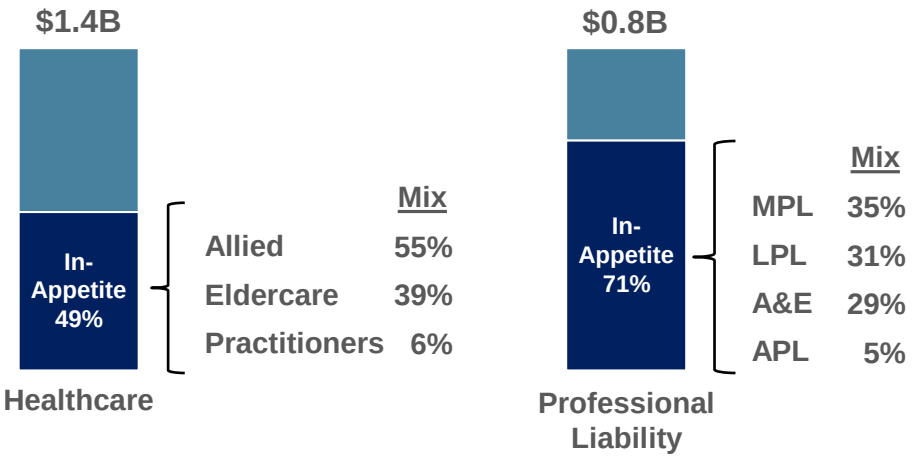
Low Volatility

Per Claim Limit	Prof Liab.	Healthcare
< $1M	***33%***	***2%***
$1M - < $2M	***55%***	***77%***
$2M+	12%	21%

Historical Profitability

7-year Ultimate Loss and ALAE Ratios

Significant headroom with existing agents reinforced with granular data insights

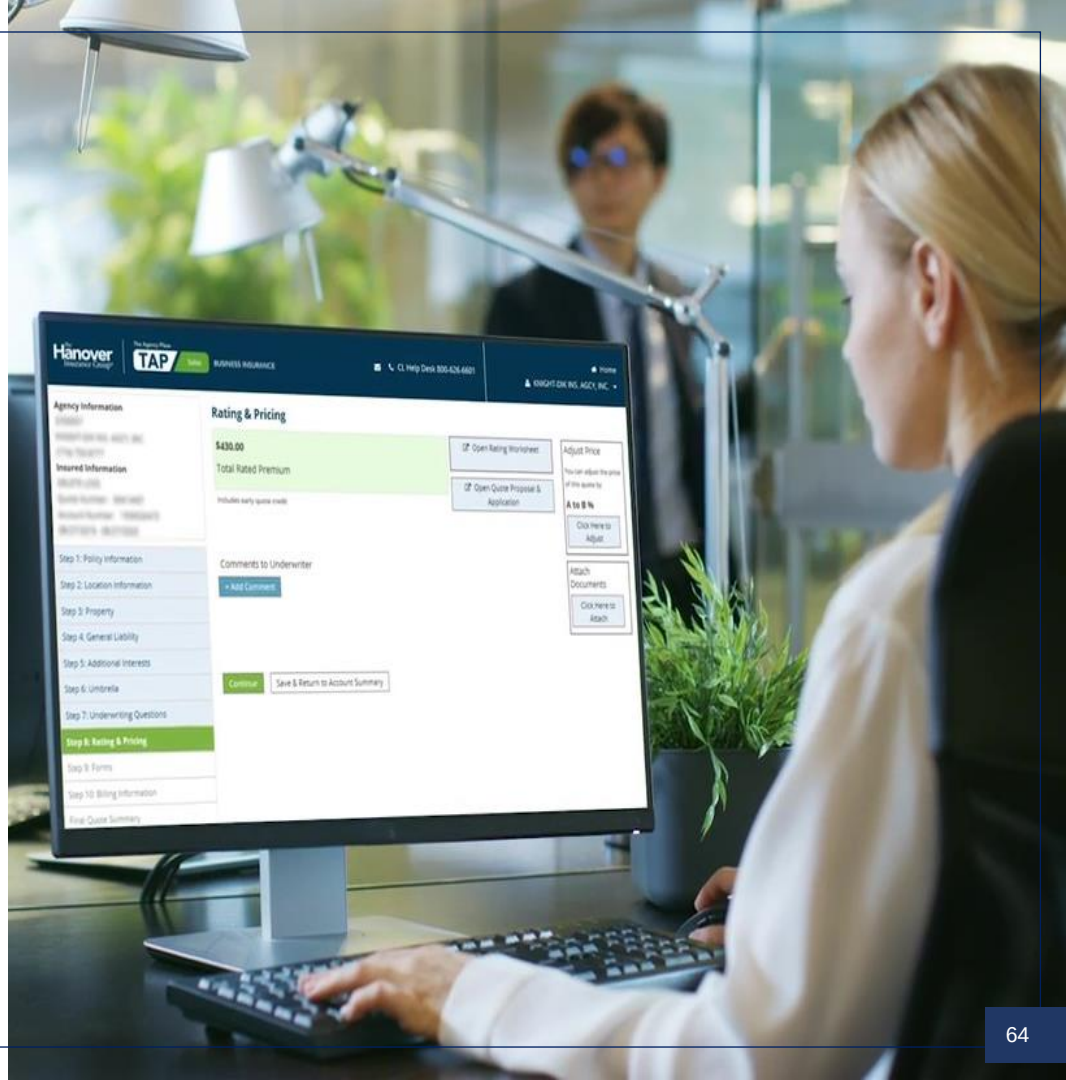


Innovating Across the Value Chain

Will Lee

EVP, Chief Information and Innovation Officer

The Hanover Insurance Group®



Key Takeaways

1.

Today's insurance organizations face an ever-evolving and complex environment
Our technology team has delivered on legacy modernization efforts to position The Hanover for flexibility and agility into the future

2.

Managing the complexity by utilizing a dual horizon operating model
Optimizing current technology while building new capabilities for the future in an integrated enterprise approach

3.

Innovation approach enables us to accelerate where needed
Future investments focused on digital customer and agent experiences, data and analytics, and distribution opportunities

Modernization Has Enabled Flexibility and Agility

More than $200 million invested to reduce cost of ownership and accelerate our strategy

Modernization across the value chain….

DIGITAL

- Agent portal
- Customer portal
- Claims

CORE SYSTEMS

- Policy admin
- Billing/general ledger
- Claims
- Commissions

SECURITY

- Data protection
- Third-party risk
- Threat and vulnerability

INFRASTRUCTURE

- Data center
- Technology debt
- Operations management

AGENT-FACING

- PL point of sale
- CL point of sale

DATA AND ANALYTICS

- Claims predictive analytics
- Unstructured data
- Enterprise data warehouse

… that provides us strategic options

- Platforms that can easily plug into other ecosystems
- Reduced total cost of ownership now and into the future
- Integrated infrastructure and security
- Modern data management and governance
- Architecture that can capitalize on external business capabilities that are maturing everyday

Distribution Enablement and Engagement

Addressing the evolution of independent agent technology ecosystem

Then | **Now**

Personal Lines

From slow, high touch quoting to streamlined, efficient quoting

- Dated quoting and issuance systems
- Slow comparative rater quote

- Enhanced agent quoting experience
- Upgraded product offerings
- New policy administration platform

Commercial Lines and Specialty

From highly manual to more digitally enabled experiences

- Limited self-service capabilities
- Data-entry intensive

- Full-service agency portal (TAP)
- Sleek, modern quoting platform
- Third party data prefill capabilities
- Agent straight-through issuance

Benefits

- **Improved agency experience and efficiency**
- **Agile integration with third-parties and digital distributors**
- **Agent straight-through processing up 55%**
- **Average time to quote has decreased by 50%**
- **Broadened market reach**

Digital-Centric and Efficient Underwriting

Evolving technology-enabled underwriting capabilities

Then

- Multiple underwriting and pricing platforms
- MS Excel-based tools
- Manual and limited third-party data
- Limited rating elements
- Physical inspections only

Now

- Single underwriting workstation
- Automated risk and pricing dashboards
- Cloud-based tools
- Third-party data integration
- Predictive analytics
- Top-quartile rating programs

From high touch to leveraging technology and data for a more digital-centric approach to underwriting

Benefits

- **Small commercial product multivariate pricing tiers increased from 4 to 75+**
- **Increased underwriting efficiency**
- **Improved rating accuracy and loss ratio performance**

Customer-Centricity Through Data Enablement

Driving differentiated and seamless digital agency and customer experiences

Then	Now
	

Customer Servicing

From paper-dependent to technology-enabled programs

- Limited or no portal capabilities
- Paper applications and wet signatures
- No telematics utilization

- Customer self-service capabilities
- E-signature enabled forms
- Safety-focused telematics program

Data Exchange

From basic data management to big data enablement

- Paper policy output and delivery
- Limited data download

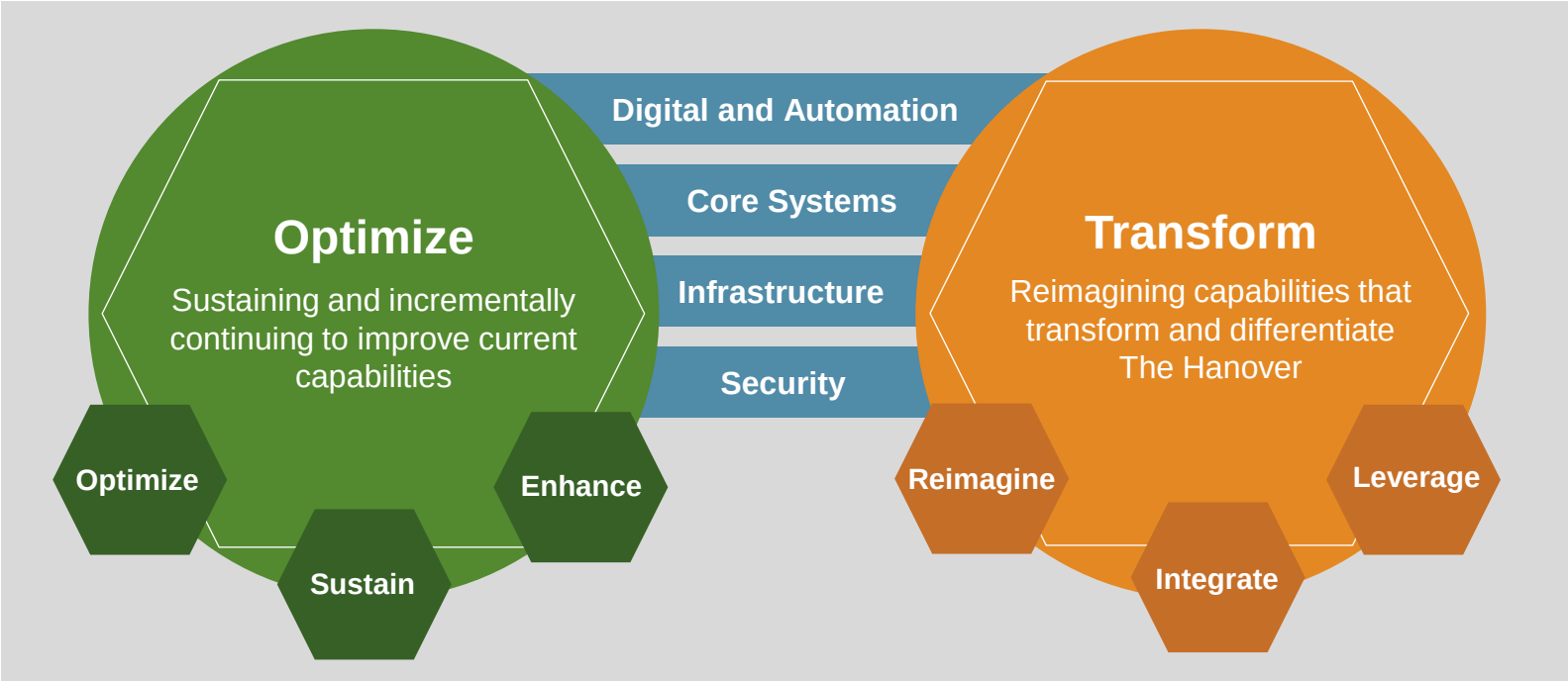
- Agent self-service capabilities
- TAP rewards
- Personal and commercial agency data download, eDocs, eMemos
- APIs and data exchange

Benefits

- **Increased agent and Hanover efficiency, productivity and capacity**
- **Over 10,000 TAP agency visits per day**
- **~20% of Commercial Lines customers registered for portal**
- **Increased Personal Lines My Hanover Policy registrations by ~50%**
- **Increased growth through agents leveraging marketing resources**

An Operating Model for This Dynamic Environment

Delivering the technology of today while reimagining tomorrow



Balancing the portfolio of investments to support how business is transacted today, while ensuring we are transforming the parts of the value chain that will matter to us in the future

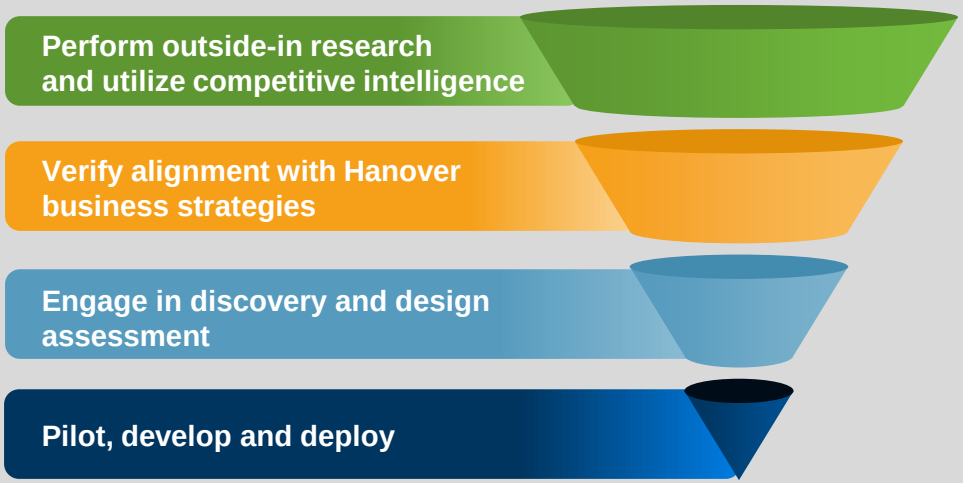
Innovating to the Second Horizon

Driving future focus and investment through an integrated approach that spans the enterprise

Enabling transformation through:

- A consultative and integrated method
- Elevating skills, capabilities and knowledge
- Anticipating business needs, delivering with agility and speed
- An innovation team that engages as an extension of IT and the business
- Purposeful pilots that ensure we understand the landscape

Investment Filters for the Transform Horizon



What We Are Focused On

Ingrained with our partners to influence future opportunities across the value chain

Trends We Are Following

Agent engagement and experience

- Platform agnostic models
- Providing agents with holistic solution offerings

Digital customer experience

- Differentiated experiences that are seamless, frictionless and personalized
- Omni-channel service experiences

Embedded distribution opportunities

- Alternative sourcing and distribution models
- Third-party service providers embedding insurance offerings

Who We Do Business With

A subset of our relationships:

IVANS INSURANCE SOLUTIONS

semsee.

TARMIKA

BrokerTech Ventures

unqork

How We Are Positioned for Success

- Leveraging our modernized eco-system
- Utilizing an outside-in approach to build an integrated roadmap
- Aligning a dedicated innovation team with our business partners
- Relying on teams that cohesively span the value chain to problem solve
- Imagining solutions in partnership with our business leaders and making connections across different disciplines

Driving Value Through a Claims Operating Model of the Future

Mark Welzenbach
EVP, Chief Claims Officer

The Hanover Insurance Group®

Key Takeaways

1.

Broad and sophisticated capabilities

Our claims organization has broad and sophisticated capabilities that provide strong support to The Hanover's diverse and growing business

2.

Transforming the way in which we operate

We have made substantial investments in data, analytics, technology and AI which we are leveraging to completely rethink the way in which we manage the claims process

3.

Specific and measurable objectives

Over the next five years, we expect our investments to improve the experience of our customers and our staff, yield additional claims expense ratio improvement of 80-100 basis points, and contribute toward maintaining The Hanover's excellent loss ratios

The Hanover Claims

An organization of 1,300 professionals and an extremely broad and sophisticated set of capabilities

Wide Breadth of Technical Skills

- Complex loss adjusters
- Dedicated specialty claims operation
- Adjusters dedicated by business line
- Full-time catastrophe management team
- Staff legal offices in 23 states

Customer Experience Proficiency

- Propriety service training
- Real-time monitoring tools
- Customer self-service capabilities
- Adjusters dedicated to supporting Prestige customers
- Relationship managers to support our agent partners

Exceptional Results

- **Highly Competitive LAE Ratio (5.9%)**
- **Customer Net Promoter Score (73%)**
- **Top-Quartile Loss Ratios**
- **Highly Satisfied Agency Partners**

Medical Management Expertise

- Full-time nurse professionals on staff
- Extensive medical and pharmacy networks
- Specialty networks – physical therapy, back/neck, etc.
- Opioid management
- Return to work programs

Loss Mitigation Strategies

- Proprietary fraud models and dedicated fraud investigation experts
- Best-in-class vendor tools
- Newly upgraded claim operating system
- Real-time dashboards and management alerts
- Predictive models supporting triage and key decisions

Transforming Our Operations

We have invested heavily in capabilities to support our vision of re-inventing our operations through data, analytics, artificial intelligence and technology

Data Science

Actuarial Science

Customer Experience Management

Change Management

Business Process Redesign

Robotics

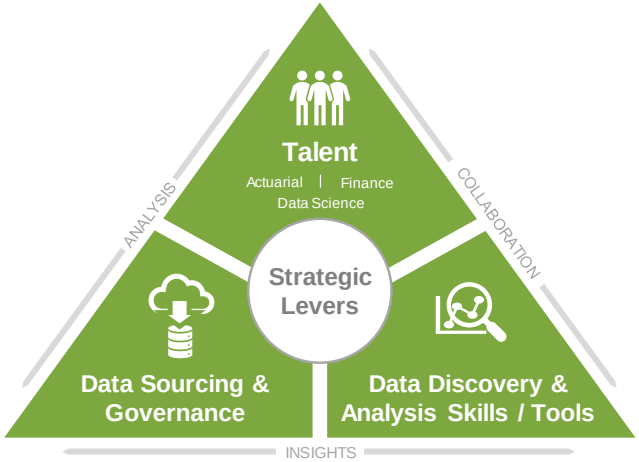
Technology

- Management Dashboards
- Business Insights/ Leading Indicators
- Performance Metrics
- Manager Alerts
- Predictive Tools
- Customer Insights
- Business Transformation

Enhanced Business Insights

Investments in data and analytics are providing real-time value to all Hanover business units through a deeper understanding of results and emerging trends

- **Improved claims outcomes**
- **Trends and leading indicators**
- **Risk and underwriting insights**



Business Insights

- Accident time of day
- Accident types / speeds
- Industry segment claim trends
- Changes to loss development or reporting patterns
- Repair / restoration cycle times
- Litigation rates / trends
- Trial scheduling / court activity
- Social inflation lead indicators
- Inflation trends – The Hanover and macro
  (unit costs for parts, labor, lumber, salvage values, etc.)
- Market / economic indicators
  (miles driven, used car prices, fuel costs, various supply chain disruptions, etc.)

Informs Claim Operations Areas of Focus

Operating Model of the Future

Our vision for transforming our operations is a multi-faceted journey for which we have established specific and measurable objectives

Enhance Our Customer and Employee Experiences Through Digital, Virtual and Self-Service Capabilities	Significantly Reduce Operating Costs Through the Integrations of Artificial Intelligence and Automation	Improve Indemnity Outcomes by Leveraging Data, Analytics and Decision Support Tools

Plan and Implement Our Future Workforce Vision

Key Performance Goals

5%	improvement in net promoter score (NPS) in 3 years	50%	of first party lower risk claims straight-through processed	**100%**	**of all casualty claims leverage predictive analytics**
65%	**of all claims include digital interaction**	80%	of first-party lower risk claims low-touch handled or straight-through processed	6x	minimum return on investment for all analytics initiatives
5%	overall voluntary employee turnover ratio	**80-100bps**	**reduction in our loss adjustment expense ratio in 5 years**	50bps	loss cost improvement over 5 years (not included in current long-term models)

Enhance Customer and Employee Experiences | **Significantly Reduce Operating Costs** | **Improve Indemnity Outcomes**

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Enhancing Our Customer and Employee Experiences

Leveraging digital, virtual and self-service capabilities guided by customer journey maps

Customer Journey

Erin

Involved in minor rear-end collision

Digital First Notice of Loss

Erin notifies us about the accident via a simple, intuitive interactive virtual assistant on her phone

Automated Claims Management

Her claim is analyzed, and fraud checked in real-time and classified as a minor claim

Digital Loss Evaluation

Erin is prompted to upload a video of the damaged vehicle, and receives a personalized education of coverages and the claim process

Repair and Digital Status Tracking

As prompted, she selects a repair appointment with a nearby shop; her car is picked up at her office for repair

Automated Settlement

The Hanover digitally receives the repair invoice, which is automatically validated and paid

Existing Capabilities

- Examples -

- Self-Service Photo App
- Predictive Total Loss Determination
- Predictive Fraud Tool
- Digital Payment

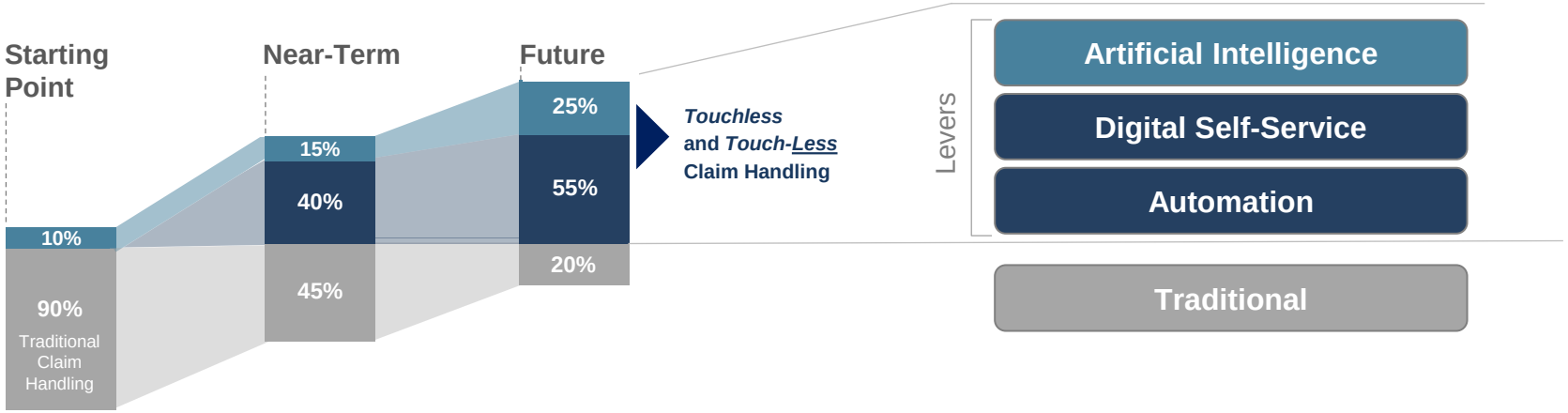
Upcoming Future Investments

- Examples -

- Intelligent Digital First Notice of Loss
- Digital Repair Shop Scheduling
- Digital Status Tracker

Operational Efficiency

Integrating artificial intelligence and automation to reduce number of touches, improving our cost structure and redistributing adjuster time to higher value activities



Technology in Motion

Auto

- Predictive method of inspection tailored to damage
- Artificial intelligence with modern imagery technology automates estimate process
- Natural language processing and robotics facilitates liability determination

Property

- Use of drones makes roof inspections safe for employees and provides 3D model
- Contents portal allows customers to identify products and provides values in real-time
- Mobile app enables virtual inspections capturing measurements and integrates with estimating software to reduce cycle time

Improving Indemnity Outcomes

Analytics and intelligent tools provide for better, more consistent and repeatable outcomes

Advanced Analytics Journey

Industry-Leading Partner Tools

CCC, OPTUM, Verisk, odg by mcg, CARPE DATA, Audatex

Proprietary Machine Learning and Robotics

Future Claim Operating Model

100%

of all claims leverage predictive analytics

Existing Capabilities

Complexity-Based Claim Assignment

- Claim segmentation and triaging
- Automated data capture (NLP)
- Capacity planning

Investigation Decision Support

- Image-based damage assessment
- Fraud / low impact
- Subrogation analytics

Machine Learning Value Estimation

- Severity prediction
- Damage valuation
- Medical bill analysis
- Next best action

Negotiation and Defense Strategy

- Law firm selection
- Law firm performance monitoring / ranking
- Staff counsel leverage

NPS and Audit Analytics

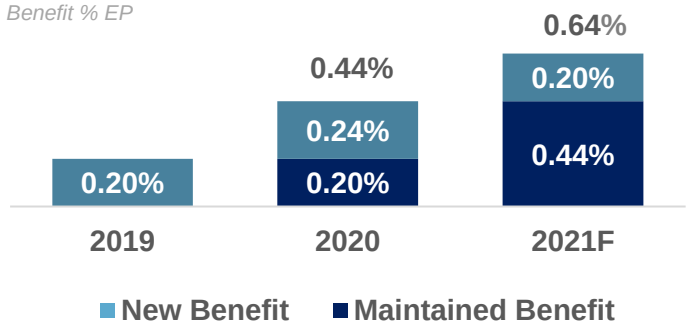
- NPS insights
- Claim audit and leakage detection
- Claim quality review
- Oversight prioritization

Benefits Realization

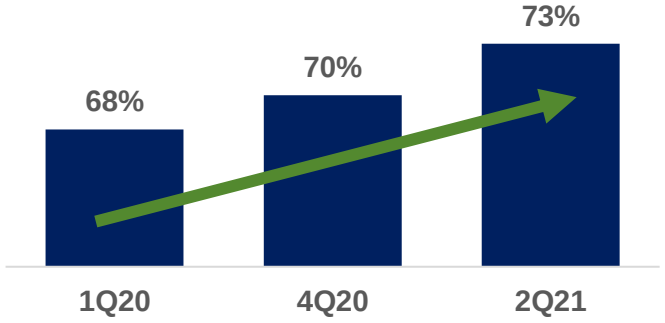
While still early in our journey, we are already realizing benefits

Loss Cost Improvements

(YE Run-Rate)

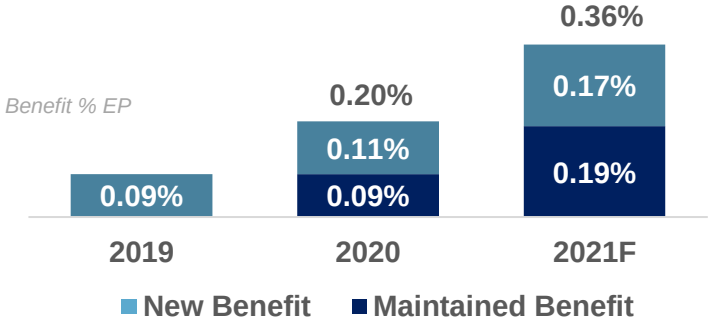


Net Promoter Score

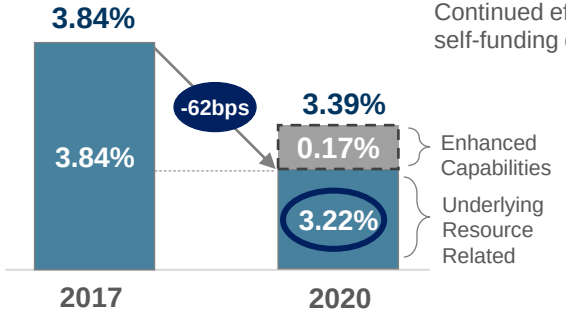


LAE Improvements

(YE Run-Rate)



Resource Related ULAE %



Continued efficiency improvement while self-funding claims transformation:

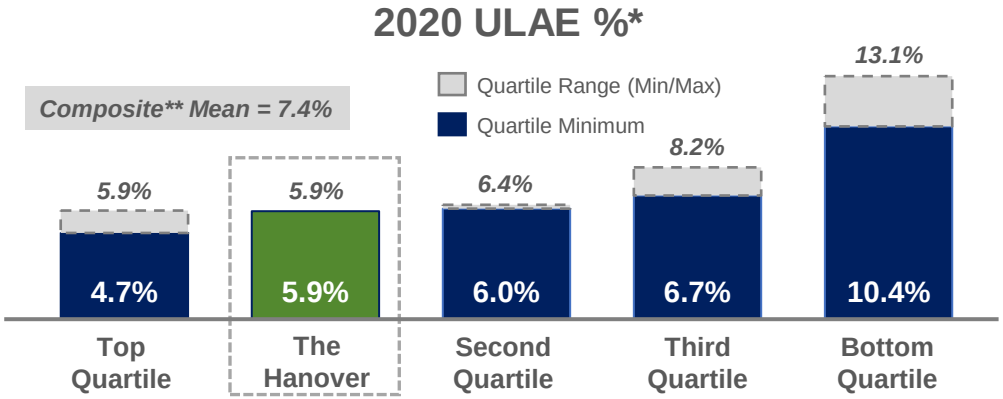
- Data and Analytics
- Digital Roadmap
- Customer Experience

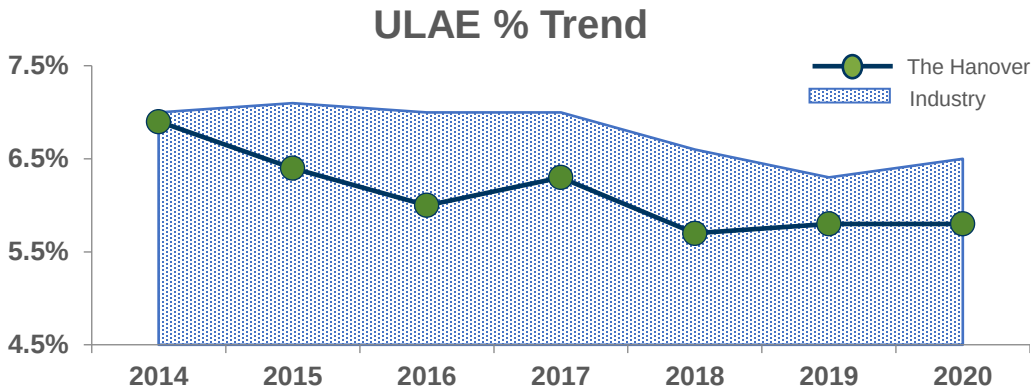
For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

The Hanover Insurance Group®

ULAE Ratio and Competitive Benchmark

Steady improvement, highly competitive position and more improvement ahead





- Strong position for The Hanover relative to the industry, and supporting a broad range of business segments with sophisticated capabilities
- Continued investments in digital, virtual and automation to maintain competitive advantage over time

Source: SNL
**Weighted to The Hanover premium composition*
***Competitor composite includes the following companies: ALL, TRV, HIG, CNA, CB, WRB, CINF, MCY, SIGI, ORI, STFC, AXS, UFCS, PRA, RLI, SAFT, HMN*

Capitalizing on a Strong Financial Foundation

Jeff Farber
EVP, Chief Financial Officer

The Hanover Insurance Group®

Key Takeaways

1.

Built strong track record

- Top-quartile ROE results and consistently strong earnings
- Rock-solid balance sheet

2.

Positioning us well to continue building shareholder value

- Meaningful expense leverage from growth
- Cost savings from claims operating model
- Continue achieving pricing commensurate with long-term loss trends

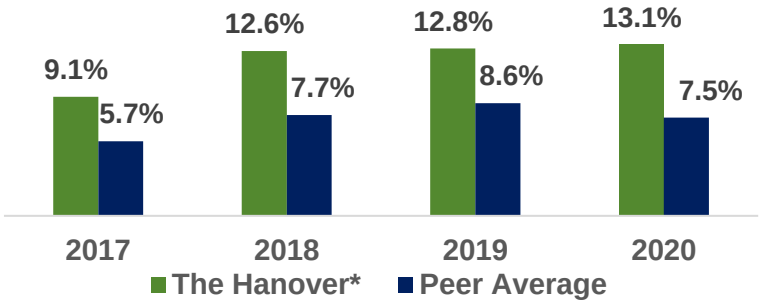
3.

Backed by rigorous financial discipline

- Prudent reserving philosophy
- Resilient, well-diversified investment portfolio
- Thoughtful capital allocation and management

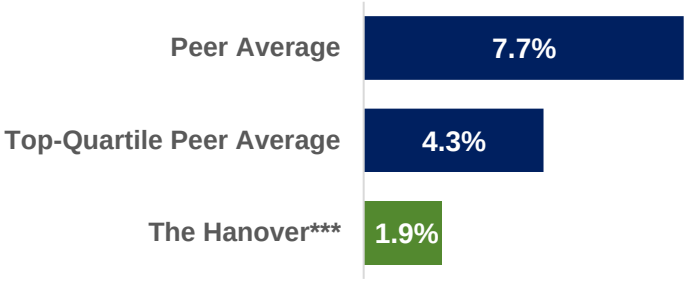
Our Proven Track Record and Consistent Broad-Based Profitability Provide Confidence in Achieving Our New Financial Targets

Track Record of Delivering Top-Quartile Operating ROE

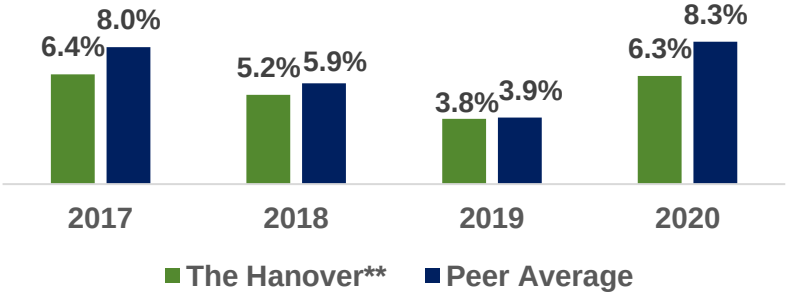


With Consistency of Earnings

Quarterly GAAP Combined Ratio Standard Deviation Q1 2017 - Q2 2021



Supported by Lower Catastrophe Volatility



Other Accomplishments Since 2017 Investor Day

- ✓ Total shareholder return
  Multi-year trend of outperformance versus peers
- ✓ Successful sale of Chaucer
  20% IRR, 1.6x book value
- ✓ Moody's upgrade in 2019

**The Hanover operating ROE is adjusted for Chaucer in 2017 through 2019*
***The Hanover catastrophe ratio excludes Chaucer in 2017 through 2019*
****The Hanover combined ratio for periods ended March 31, 2017, through December 31, 2019, exclude Chaucer*
Peer group for operating ROE and combined ratio include AFG, ALL,SAFT, HIG, SIGI, RLI, ORI, KMPR, TRV, JRVR, WRB, CB, CINF, CNA, STFC, ARGO, MCY, PRA, AXS, HMN, UFCS, AIG, MKL, DGICA. Peer group for catastrophe ratio excludes liability-only peers.

The Hanover Insurance Group®

Our Five-Year Strategy is Designed to Continue to Deliver Top-Quartile Financial Performance

Long-Term Target

ROE ~14%

Our Long-Term Aspirational Goals

CAGR

NPW 7+%

EPS 12-13%

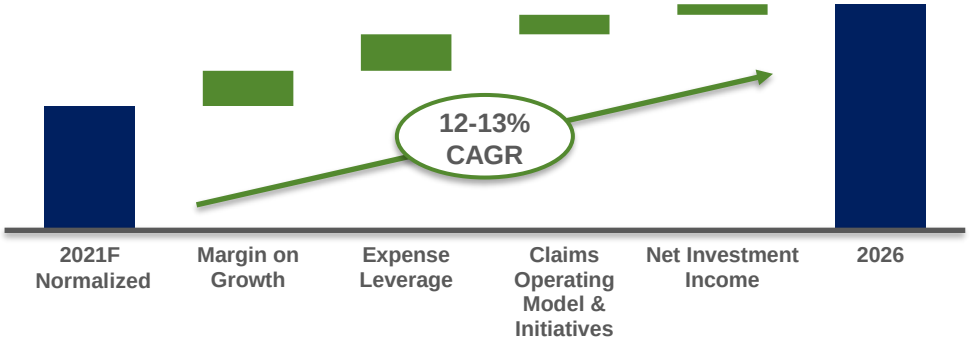
BVPS 7-8%

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Roadmap to Even Stronger Returns

Return on Equity (ROE)

Earnings per Share (EPS)



Growth in EPS and increasing ROE:

- Expense leverage from growth is an important driver
- Claims cost efficiency enabled by new platform and operating model, as well as enhanced legal spend rigor

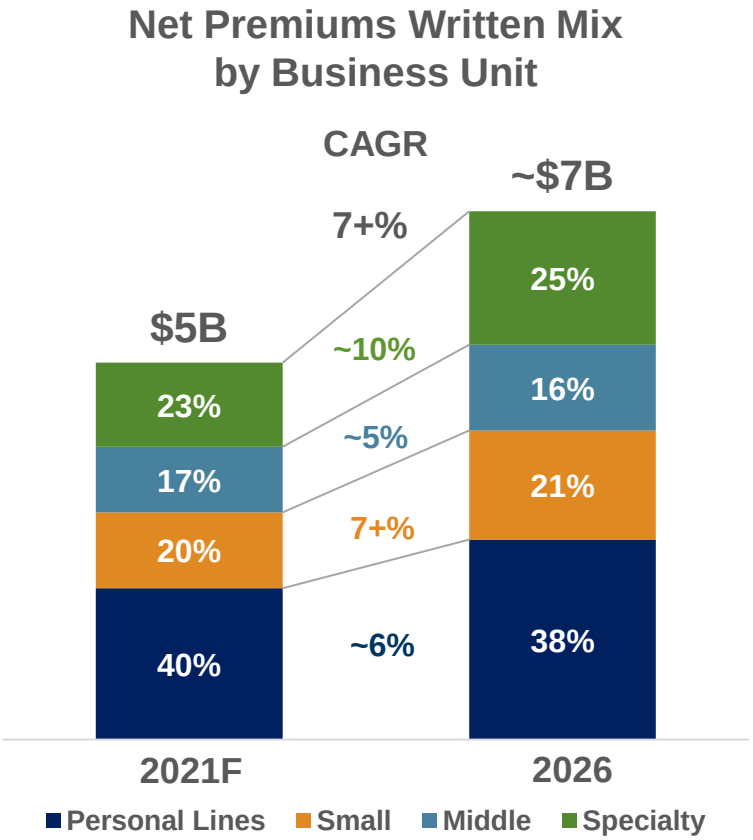
Will more than overcome:

- Net investment income growth slower than premiums

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Broad-Based Profitability With Multiple Growth Levers in Each Business

Will further emphasize specialized capabilities as we grow

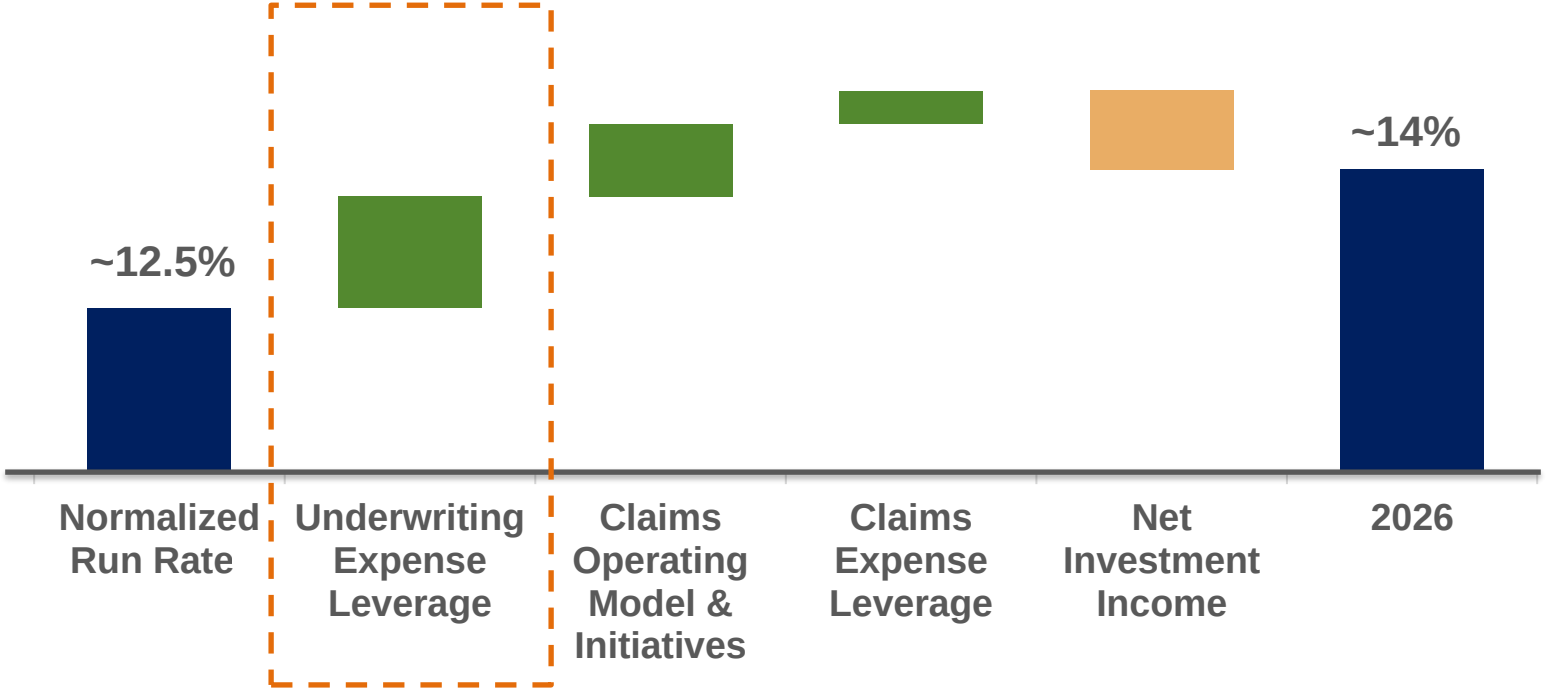


- All segments contributing to aspirational growth targets
- Portfolio shifts modestly towards the Specialty Lines, with slight mix reduction to Personal Lines
- Will continue to emphasize casualty growth to balance existing property exposure
- Broad-based profitability allows for multiple growth levers in each business

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Growth is Heavily Accretive to Earnings and ROE, Providing Underwriting Expense Leverage

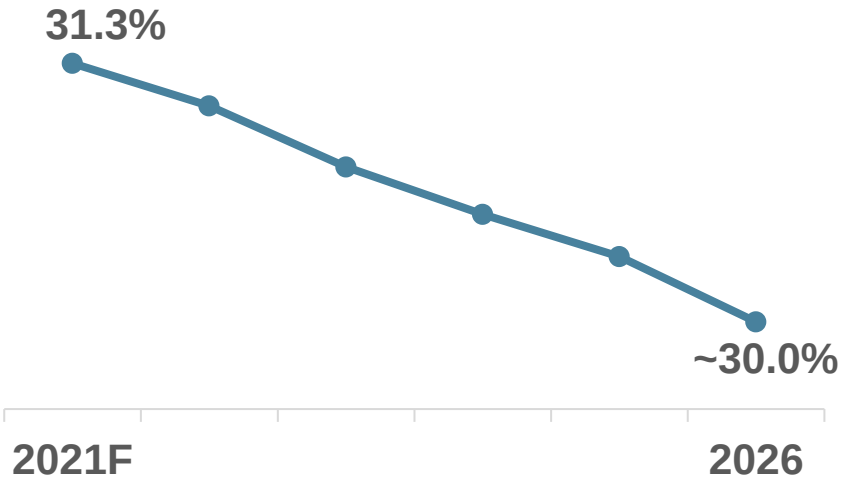
Return on Equity (ROE)



For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Continued Fixed Cost Leverage From Growth is the Foundation of Improved Financial Performance Looking Forward

Expense Ratio Improvement from Fixed Cost Leverage



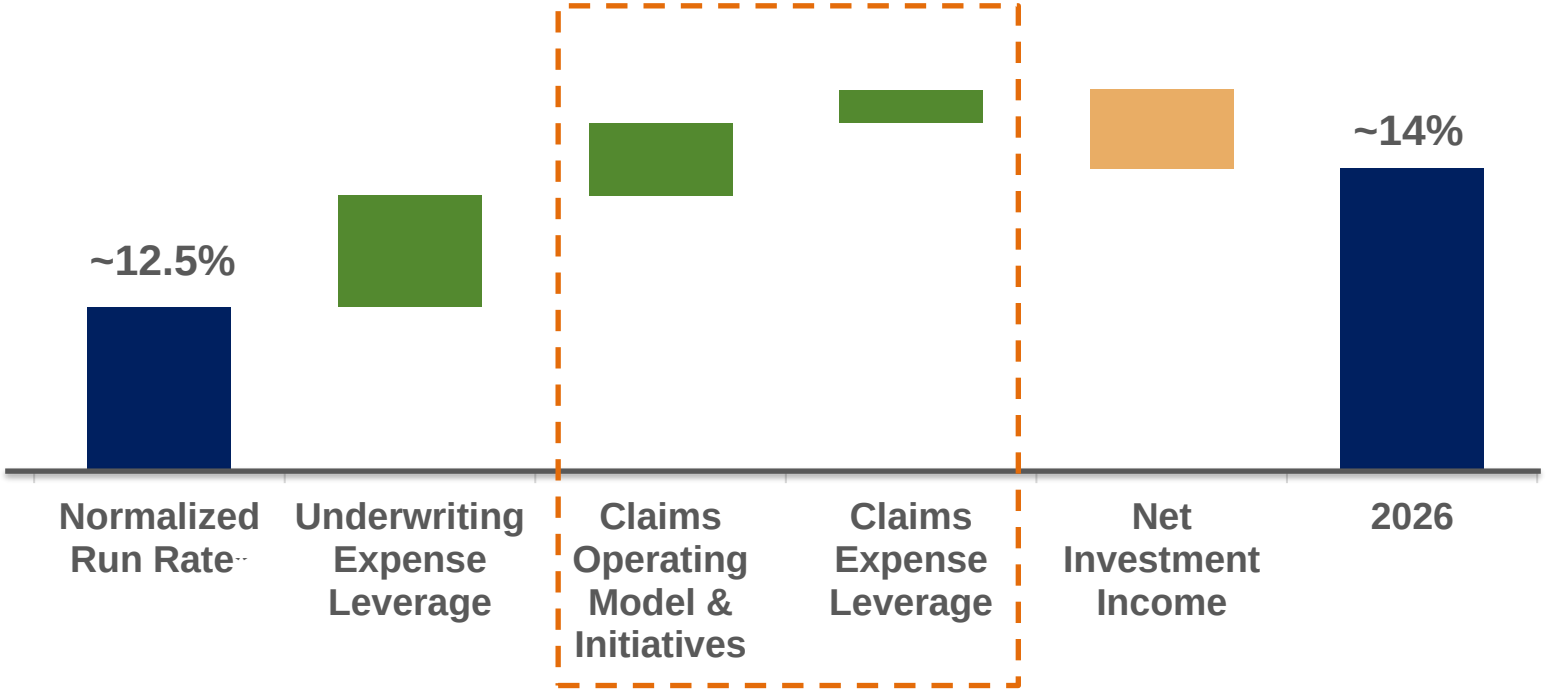
- At least 20 basis point annual improvement via fixed cost leverage
- After significant investment in modernization of our enterprise platforms, spend becomes increasingly available to further enable business growth and innovation

Deliver 130 basis points of expense ratio improvement on the $2 billion in premium growth

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Enhancements in Claims and Continued Expense Leverage Should Reduce LAE by up to 1 Point of the Combined Ratio

Return on Equity (ROE)



For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Claims Organization Benefits From Cost Savings and Leverage – Reducing Claims Expenses by 80-100 Basis Points by 2026

Operating Model and Initiatives

- Significantly reduce operating costs through the integration of artificial intelligence and automation, enabled by recent new platform implementation
- Enhanced analytics, monitoring and utilization driving improved legal costs

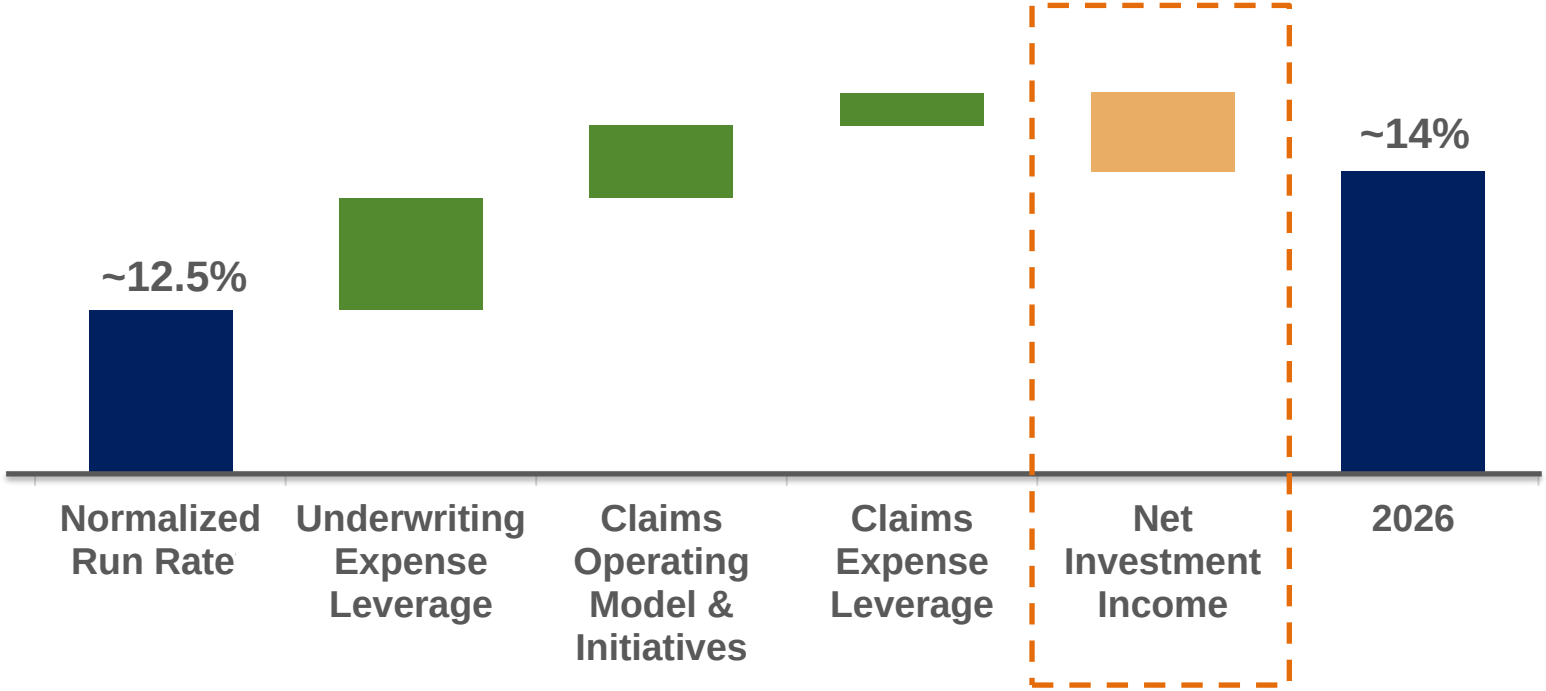
Expense Leverage

- Continue managing overhead cost growth well below premium growth

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

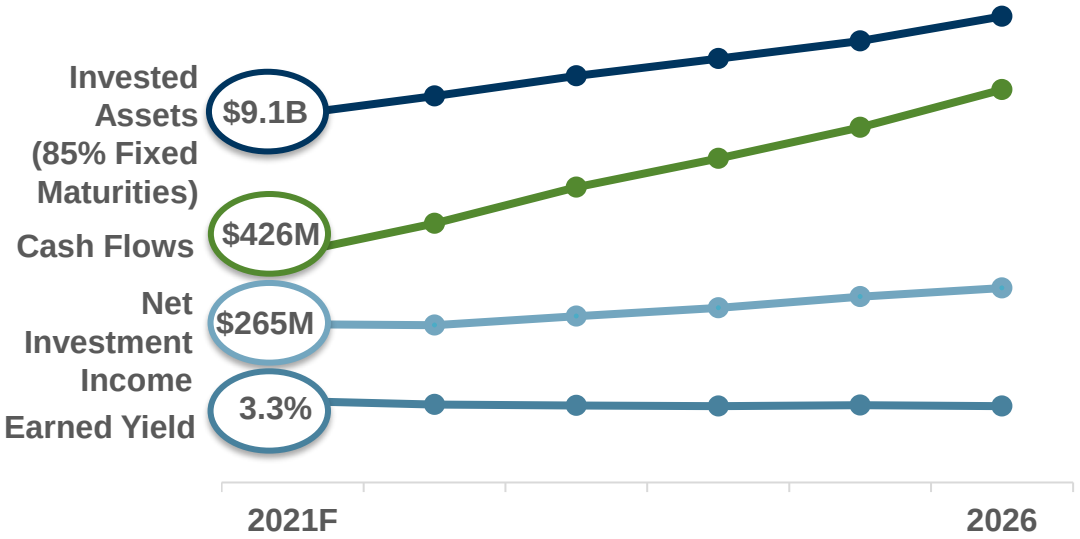
Net Investment Income Growth Slower Than Underwriting Income Growth Due to Lower Interest Rate Environment, Maintaining Prudent Investment Approach

Return on Equity (ROE)



For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Net Investment Income Growth Slower Than Premium



Current Portfolio*

96%	A+	5 years
Fixed maturities are investment grade	Weighted average quality	Duration

Five-year strategy
Consistent, conservative approach

- Drive investment income growth with higher underwriting cash flows
- Maintain allocation strategy – investment grade fixed income continues to be foundational
- Avoid credit concentration or duration risk
- New money rates projected to steadily increase throughout the forecast period; however, earned yield on fixed maturity portfolio will modestly decline

*As of period ended June 30, 2021

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Financial Discipline Drives Success

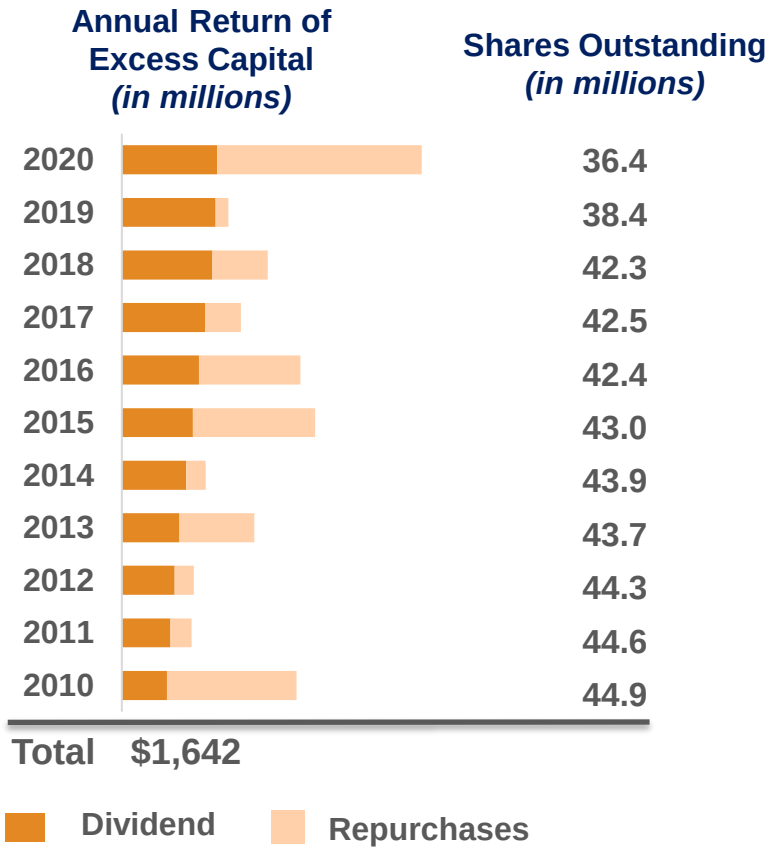
- Conservative reserving philosophy strengthens resilience for future uncertainty
- Limited earnings volatility

- Business investment based on risk-adjusted returns
- Return excess capital to shareholders

- Enterprise-wide risk management
- Responsible appetite expansion

- Rigorous underwriting performance management
- Investment in innovation

We Will Maintain Our Thoughtful and Consistent Capital Management Philosophy



- In addition to the repurchase amounts shown, we returned capital related to the sale of Chaucer ($550M of share repurchases and ~$300M of special dividends) in 2019
- Optimize reinsurance with holistic, organizational strategy for reinsurance purchasing
- Maintain consistent debt to capital leverage and ratings
- Focused capital allocation based on risk-adjusted returns
- Prioritize organic growth for which we generate plenty of capital
- Return excess capital to shareholders
  - Maintain track record of consistent dividend growth
  - Seek opportunistic stock buy-backs

Potential Upside to Our Five-Year Financial Model and Strategy – Factors Not Considered in Aspirational Goals or Financial Model

Inorganic Growth Opportunities

- ✓ Must be consistent with distribution model
- ✓ Accretive quickly
- ✓ Cultural fit

Indemnity Improvement in Claims

- ✓ Leverages data, analytics and enhanced modeling tools
- ✓ Provides flexibility to reinvest into the business or take to the bottom line

Expense Efficiencies

- ✓ Future investments to yield benefits in automation and digitization
- ✓ Another lever in our discretionary toolkit to pull for reinvesting into the business

Our Five-year Strategy Is Designed To Deliver Top-quartile Financial Performance

Long-Term Target

Our Long-Term Aspirational Goals

— CAGR —

ROE	NPW	EPS	BVPS
~14%	7+%	12-13%	7-8%

Enabled by Our Value Drivers

- ✓ Differentiated strategy
- ✓ Specialized capabilities
- ✓ Innovation, data and analytics
- ✓ Rigorous financial management
- ✓ ESG focus

For additional information regarding forward-looking non-GAAP measures on this page and throughout this presentation, please refer to page 108 of this presentation.

Appendix

The Hanover Insurance Group®

The Hanover's Senior Team *(Partner Group)*

Jack Roche
President and CEO
35+ years experience

Jeff Farber
EVP, Chief Financial Officer
35 years

Dennis Kerrigan
EVP, General Counsel
30+ years

Dick Lavey
EVP, President, Hanover Agency Markets
30+ years

Will Lee
EVP, Chief Technology and Innovation Officer
30 years

Denise Lowsley
EVP, Chief Human Resources Officer
25+ years

Bryan Salvatore
EVP, President, Specialty
30+ years

Ann Tripp
EVP, Chief Investment Officer and Treasurer
40+ years

Mark Welzenbach
EVP, Chief Claims Officer
40 years

Diverse Board Focused on Delivering Stakeholder Value Through Strong Governance

Board Member	Selected Experience
Cynthia Egan *Chair of the Board*	T. Rowe Price, Fidelity
Kevin Bradicich	McKinsey
Theodore Bunting, Jr.	Entergy
Jane Carlin	Morgan Stanley, Credit Suisse
J. Paul Condrin III	Liberty Mutual, KPMG
Daniel Henry	American Express, Ernst & Young
Martin Hughes	HUB
Wendell Knox	Abt Associates
Kathleen Lane	TJX, National Grid, Gillette, GE, Pepsi
Joseph Ramrath	Colchester Partners, United Asset Management
Harriett "Tee" Taggart	Wellington
Jack Roche *CEO, The Hanover*	Travelers, Fireman's Fund, Atlantic Mutual

55%* gender, race or ethnically diverse

36%* Female

6.6 years* average tenure

Female board chair

Separate CEO and board chair

Collective Expertise

- P&C Insurance
- Financial Services
- Mergers and Acquisitions
- Finance / Accounting
- Investments / Capital Markets
- Technology
- Senior Management and Talent Development
- Operations
- Marketing and Distribution
- Governance

*Excluding CEO

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.

All products are underwritten by The Hanover Insurance Company or one of its insurance company subsidiaries or affiliates ("The Hanover"). Coverage may not be available in all jurisdictions and is subject to the company underwriting guidelines and the issued policy. This material is provided for informational purposes only and does not provide any coverage. For more information about The Hanover visit our website at hanover.com.

Forward-looking Statements and Additional Risks and Uncertainties

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, including those related to financial and operational results and metrics from the company’s targets, 2021 forecast, 2021 outlook, 2026 strategy, and 2026 forecast, are 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”,“moving forward”, “confident” and other similar expressions are intended to identify forward-looking statements, as are our references to “goals”, “aspirations”, “targets”, “long-term aspirational goals” and “long-term targets”. 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 execute on five-year financial goals, including above-average profitable growth, earnings per share (EPS), book value per share (BVPS), target operating return on equity (ROE), net premiums written (NPW) in total or by line of business, improvement in expense ratio, and top-quartile returns;
- Success of the implementation of the claims operating model, including LAE and loss cost improvement from both new and maintained benefits, combined ratio, and operating costs;
- Expectations for future operational structure in claims, including artificial intelligence, automation and digital self-service;
- The impact of the COVID-19 outbreak and subsequent global pandemic (“Pandemic”) and related economic conditions on the company’s operating and financial results, including, but not limited to, the impact on the company’s investment portfolio, declining claims frequency as a result of reduced economic activity, severity from higher cost of repairs due to, among other things, supply chain disruptions, declines in premium as a result of, among other things, credits or returns to the company’s customers, lower submissions, changes in renewals and policy endorsements, public health guidance, and the impact of government orders and restrictions in the states and jurisdictions in which the company operates;
- 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, wildfires, terrorism, civil unrest, 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;
- 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 or customers as being “more profitable” in light of inherent uncertainty of ultimate losses incurred, especially for “longer-tail” liability businesses;
- Efforts to manage and improve the expense ratio, including the company’s long-term expense savings targets and benefit from cost savings, while allocating capital to business investment, which is at management’s discretion;
- Mix improvement, underwriting initiatives, coverage restrictions and pricing segmentation actions, 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;

Forward-looking Statements and Additional Risks and Uncertainties (Continued)

- The ability to generate growth and expand market share 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; agency consolidation benefits; addressable market share; penetration of existing agents; expense leverage; technology platforms, including TAP sales; or otherwise;
- Ability to capture new customer segments, including micro businesses, emerging affluent and high net worth;
- Ability to drive growth through market opportunities and addressable market share;
- 2026 mix of business, including mix of net written premiums by segment and/or line of business;
- Expansion of the company's specialty commercial business through cross selling and new product solutions; and
- Investment returns and the effect of macro-economic interest rate trends and overall security yields, including the macro-economic impact of the Pandemic and corresponding governmental initiatives taken in response, 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:

- The severity, duration and long-term impact related to the Pandemic, including, but not limited to, actual and possible government responses, legislative, regulatory and judicial actions, changes in frequency and severity of claims in both Commercial and Personal Lines, impacts to distributors (including agent partners), and the possibility of additional premium adjustments, including credits and returns, for the benefit of insureds;
- Changes in regulatory, legislative, economic, market and political conditions, particularly in response to COVID-19 and the Pandemic (such as legislative or regulatory actions that would retroactively require insurers to cover business interruption or other types of claims irrespective of terms, exclusions or other conditions included in the contractual terms of the policies that would otherwise preclude coverage, mandatory returns and other rate-related actions, as well as presumption legislation in regards to workers' compensation);
- Heightened investment market volatility, fluctuations in interest rates (which have a significant impact on the market value of the investment portfolio and thus book value), U.S. Federal Reserve actions, inflationary pressures, default rates, prolonged global market conditions and other factors that affect investment returns from the investment portfolio;
- Adverse claims experience, including those driven by large or increased frequency of catastrophe events (including those related to terrorism, riots and civil unrest), and severe weather;
- The uncertainty in estimating weather-related losses or the long-term impacts of the Pandemic, and the limitations and assumptions used to model other 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;
- 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 as occurred in 2020;
- 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;

Additional Risks and Uncertainties (Continued)

- 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, global trade wars, 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; and
- 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).

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.

Non-GAAP Financial Measures

The discussion in this presentation and the webcast include reference to certain financial measures that are not derived from generally accepted accounting principles, or GAAP. As discussed on page 38 of the company's Annual Report on Form 10-K for the year ended December 31, 2020, the company uses non-GAAP financial measures as important measures of its operating performance, including operating income, operating income before interest expense and income taxes, operating income 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 2020 Annual Report on pages 67-70.

Operating income and operating income per share are non-GAAP measures. They are defined as net income (loss) excluding the after-tax impact of net realized and unrealized investment gains (losses), gains and/or losses on the repayment of debt, other non-operating items, and results from discontinued operations. Net realized and unrealized investment gains (losses), which include changes in the fair value of equity securities still held, are excluded for purposes of presenting operating income, as they are, to a certain extent, determined by interest rates, financial markets and the timing of sales. Operating income also excludes net gains and losses from disposals of businesses, gains and losses related to the repayment of debt, costs to acquire businesses, restructuring costs, the cumulative effect of accounting changes and certain other items. Operating income is the sum of the segment income from: Commercial Lines, Personal Lines, and Other, after interest expense and income taxes. In reference to one of the company's three segments, "operating income" is the segment income before both interest expense and income taxes. The company also uses "operating income per share" (which is after both interest expense and income taxes). It is calculated by dividing operating income by the weighted average number of diluted shares of common stock. The company believes that metrics of operating income and operating income in relation to its three segments provide investors with a valuable measure of the performance of the company's continuing businesses because they highlight the portion of net income attributable to the core operations of the business. Income (loss) from continuing operations is the most directly comparable GAAP measure for operating income (and operating income before income taxes) and measures of operating income that exclude the effects of catastrophe losses and/or reserve development should not be misconstrued as substitutes for income from continuing operations or net income determined in accordance with GAAP. A reconciliation of operating income (loss) to income from continuing operations and net income for the relevant periods is included in note (5) of this presentation.

The company may also provide measures of operating income 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 "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 reserve development. The presentation of loss and combined ratios calculated excluding the effects of catastrophe losses and/or reserve development should not be misconstrued as substitutes for the loss and/or combined ratios determined in accordance with GAAP.

Non-GAAP Financial Measures (Continued)

Operating return on equity ("ROE") and adjusted operating ROE ("Adjusted Operating ROE") are non-GAAP measures. See end note (1) 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. In addition, the portion of shareholder equity attributed to unrealized appreciation (depreciation) on fixed maturity investments, net of tax, is excluded. 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 after the closing of that transaction, "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. 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 and shareholders' equity of the entire company and without adjustments. 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.

Book value per share, adjusted for special dividends, is a non-GAAP measure. Book value per share is the most directly comparable GAAP measure.

Forward-looking Non-GAAP Measures

The company calculates forward-looking non-GAAP financial measures based on its internal forecasts, among other factors. Forward-looking non-GAAP measures, including normalized run rate, 2021 forecast and 2026 forecast, are not reconciled because such measures and reconciliations are not available without unreasonable effort that would require the company to make estimates or assumptions about unidentified and unknown factors during the period referenced, such as catastrophes, economic and market conditions, and competitive factors, among others. References to return on equity ("ROE") and earnings per share ("EPS") on this page and throughout this presentation reference operating ROE and operating EPS, which are non-GAAP measures. The company's forecast, including, but not limited to, operating return on equity ("ROE"), net premiums written ("NPW"), operating earnings per share ("EPS"), book value per share ("BVPS") and expense ratio, are non-GAAP measures. The company's forecast represents long-term aspirational goals, which reflect the company's current expectations for future periods and could differ materially from actual results.

Normalized run rate for operating ROE is based on the company's best estimate for 2021, and includes normalization for catastrophe losses, favorable prior-year development, partnership income and current accident year losses, primarily COVID-19. In addition, this is consistent with the historical average over the past 3.5-year period. Normalized operating EPS for 2016 includes normalization for unfavorable development and catastrophe losses. 2021 operating EPS forecast is based on the company's best estimate for 2021, and includes normalization for catastrophe losses as well as for favorable prior-year development, partnership income and current accident year losses, which were normalized primarily for COVID-19.

End Notes

(1) Operating Return on Average Equity and Adjusted Operating Return on Average Equity ("Operating ROE" and "Adjusted Operating ROE") are non-GAAP measures. Operating ROE is calculated by dividing annualized operating income after tax for the applicable period (end note (5)), by average shareholders' equity, excluding unrealized appreciation (depreciation) on fixed maturity investments, net of tax, for the stated period (end note (7)). For the calculation of 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 [then] undeployed equity" for measurement periods post-close and for net unrealized appreciation (depreciation) on fixed maturity investments, net of tax (end note (7)). Please see end note (7) for a detailed reconciliation of adjusted shareholders' equity with and without both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and including the payment of the $250 million ASR agreement for the full year 2019 calculation. Additionally, for the calculation of Adjusted Operating ROE, operating income, net of tax, is adjusted for the net investment income related to undeployed 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 on the following page, including the calculation of Net Income ROE using net income, annualized, and average shareholders' equity without adjustments:

End Notes (Continued)

	Year ended			
Net Income ROE (GAAP)	December 31 2017	December 31 2018	December 31 2019	December 31 2020
Net Income (GAAP)	$186.2	$391.0	$425.1	$358.7
Average shareholders' equity (GAAP) (end note (7))	2,942.6	2,957.5	2,965.2	3,016.3
Return on equity (GAAP)	6.3%	13.2%	14.3%	11.9%
Operating Income ROE (non-GAAP)				
Operating income, net of tax (non-GAAP)	$192.6	$292.1	$331.6	$355.0
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and including the ASR payment (non-GAAP) (end note (7))	2,732.7	2,946.4	2,773.7	2,701.6
Operating return on equity (non-GAAP)	7.0%	9.9%	12.0%	13.1%
Adjusted Operating Income ROE (non-GAAP)				
Operating income, net of tax (non-GAAP)	$192.6	$292.1	$331.6	
Less: Annualized net investment income related to un-deployed equity attributable to Chaucer, net of tax (non-GAAP)	-	-	9.3	
Operating income, excluding the net investment income related to the un-deployed equity attributable to Chaucer, net of tax (non-GAAP)	$192.6	$292.1	$322.3	
Average adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and un-deployed equity; and including the ASR payment (non-GAAP) (end note (7))	2,118.1	2,323.4	2,508.5	
Adjusted operating return on equity (non-GAAP)	9.1%	12.6%	12.8%	

*Net investment income related to the un-deployed equity attributable for each quarter is calculated by multiplying the respective quarter's un-deployed equity attributable to Chaucer by the respective quarter's total pre-tax yield, net of tax and dividing by 4.

End Notes (Continued)

(2) Specialty lines, a major component of Other Commercial Lines, consist of products such as marine, surety, specialty industrial property, excess and surplus, professional liability, management liability and program business. When discussing net premiums written and other financial measures of our specialty businesses, the company may include non-specialty premiums that are written as part of the entire account.

(3) Book value per share, adjusted for special dividends, is a non-GAAP measure. The company paid special dividends of $4.75 and $2.50 in January 2019 and December 2019, respectively, following the sale of its Chaucer business. Chaucer constituted the company's international business and was sold to China Reinsurance (Group) Corporation in 2018. Book value per share is the most directly comparable GAAP measure and is reconciled in the table below.

	Period ended	
	December 31, 2016	June 30, 2021
Book value per share	$ 67.40	$ 88.23
Plus: Special dividends of $4.75 and $2.50 paid in January 2019 and December 2019, respectively	-	7.25
Book value per share, adjusted for special dividends	$ 67.40	$ 95.48

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

End Notes (Continued)

(5) Operating income (loss) and operating income (loss) per diluted share are non-GAAP 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 from continuing operations and income from continuing operations per diluted share, respectively, which are then reconciled to net income and net income per diluted share, respectively:

As Reported *(in millions, except per share data)*	Year ended December 31, 2016		December 31, 2017		December 31, 2018		December 31, 2019		December 31, 2020	
	$	Per Share	$	Per Share	$	Per Share	$	Per Share	$	Per Share
OPERATING INCOME (LOSS)										
Commercial Lines	$34.7		$177.4		$265.7		$300.1		$275.4	
Personal Lines	177.7		158.7		146.2		144.9		212.5	
Other	(19.5)		(8.8)		(5.4)		8.6		(3.2)	
Total	192.9		327.3		406.5		453.6		484.7	
Interest expense	(51.4)		(45.2)		(45.1)		(37.5)		(37.1)	
Operating income before income taxes	141.5	$3.27	282.1	$6.56	361.4	$8.40	416.1	$10.24	447.6	$11.75
Income tax expense on operating income	(46.3)	(1.07)	(89.5)	(2.08)	(69.3)	(1.61)	(84.5)	(2.08)	(92.6)	(2.43)
Operating income after income taxes	95.2	2.20	192.6	4.48	292.1	6.79	331.6	8.16	355.0	9.32
Non-operating items:										
Net realized gains (losses) from sales and other	37.6	0.87	26.7	0.62	(2.7)	(0.06)	4.9	0.12	17.9	0.47
Net change in fair value of equity securities	-	-	-	-	(43.4)	(1.01)	106.5	2.62	13.4	0.35
Impairment losses on investments	(27.4)	(0.63)	(5.6)	(0.13)	(4.6)	(0.11)	(2.0)	(0.05)	(26.3)	(0.69)
Loss from repayment of borrowings	(88.3)	(2.05)	-	-	(28.2)	(0.65)	-	-	(6.2)	(0.16)
Other non-operating items	2.6	0.06	(10.3)	(0.24)	-	-	(3.4)	(0.08)	(1.6)	(0.05)
Income tax benefit (expense) on non-operating items	47.3	1.10	12.7	0.30	25.8	0.60	(8.6)	(0.21)	9.8	0.26
Income from continuing operations, net of taxes	67.0	1.55	216.1	5.03	239.0	5.56	429.0	10.56	362.0	9.50
Discontinued Operations (net of taxes):										
Sale of Chaucer business	-	-	-	-	131.9	3.07	(1.2)	(0.03)	-	-
Income (loss) from Chaucer business	89.1	2.06	(13.1)	(0.30)	20.0	0.46	1.6	0.04	0.4	0.01
Income (loss) from discontinued life businesses	(1.0)	(0.02)	(16.8)	(0.40)	0.1	-	(4.3)	(0.11)	(3.7)	(0.09)
Net income	$155.1	$3.59	$186.2	$4.33	$391.0	$9.09	$425.1	$10.46	$358.7	$9.42
Dilutive weighted average shares outstanding		43.2		43.0		43.0		40.6		38.1

(6) 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 in the company's financial supplement.

End Notes (Continued)

(7) 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 and on the following pages. For the calculation of Operating ROE, the average of total 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 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 "post-close undeployed equity" for measurement periods post-close, for the beginning and ending, and interim (if applicable) quarters are used. For the calculation of Operating ROE and Adjusted Operating ROE for the full year 2019 only, the balance at December 31, 2018 was adjusted by the $250 million paid on January 2, 2019 to eliminate the dilutive impact the ASR would have had on unadjusted and adjusted Operating ROE.

($ in millions)	December 31, 2016	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017
Total shareholders' equity (GAAP)	$2,857.5	$2,913.5	$2,972.5	$2,972.0	$2,997.7
Less: net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	186.0	205.0	224.8	228.5	205.4
Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	2,671.5	2,708.5	2,747.7	2,743.5	2,792.3
Less: Pre-sale, equity attributable to Chaucer	614.6	614.6	614.6	614.6	614.6
Adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and equity attributable to Chaucer	$2,056.9	$2,093.9	$2,133.1	$2,128.9	$2,177.7
Average shareholders' equity (GAAP)					$2,942.6
Average shareholders' equity, excluding net unrealized apprecation (depreciation) on fixed maturity investments, net of tax					$2,732.7
Average adjusted shareholders' equity, excluding both net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and equity attributable to Chaucer					$2,118.1

End Notes (Continued)

($ in millions)	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 (GAAP)					$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

End Notes (Continued)

($ in millions)	December 31, 2018	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019
Total shareholders' equity (GAAP)	$2,954.7	$2,927.0	$2,941.1	$3,086.8	$2,916.2
Less: net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	(27.2)	90.7	192.3	235.3	216.0
Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	2,981.9	2,836.3	2,748.8	2,851.5	2,700.2
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	2,731.9	2,836.3	2,748.8	2,851.5	2,700.2
Less: Pre-sale, equity attributable to Chaucer; or post-close, un-deployed equity	406.6	406.6	256.6	256.6	-
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	$2,325.3	$2,429.7	$2,492.2	$2,594.9	$2,700.2
Average shareholders' equity (GAAP)					$2,965.2
Average shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax, and including the ASR payment					$2,773.7
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					$2,508.5

End Notes (Continued)

($ in millions)	December 31, 2019	March 31, 2020	June 30, 2020	September 30, 2020	December 31, 2020
Total shareholders' equity (GAAP)	$2,916.2	$2,736.6	$3,071.7	$3,155.0	$3,202.2
Less: net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	216.0	132.8	384.5	412.3	428.1
Total shareholders' equity, excluding net unrealized appreciation (depreciation) on fixed maturity investments, net of tax	2,700.2	2,603.8	2,687.2	2,742.7	2,774.1
Average shareholders' equity (GAAP)					$3,016.3
Average shareholders' equity, excluding net unrealized apprecation (depreciation) on fixed maturity investments, net of tax					$2,701.6