

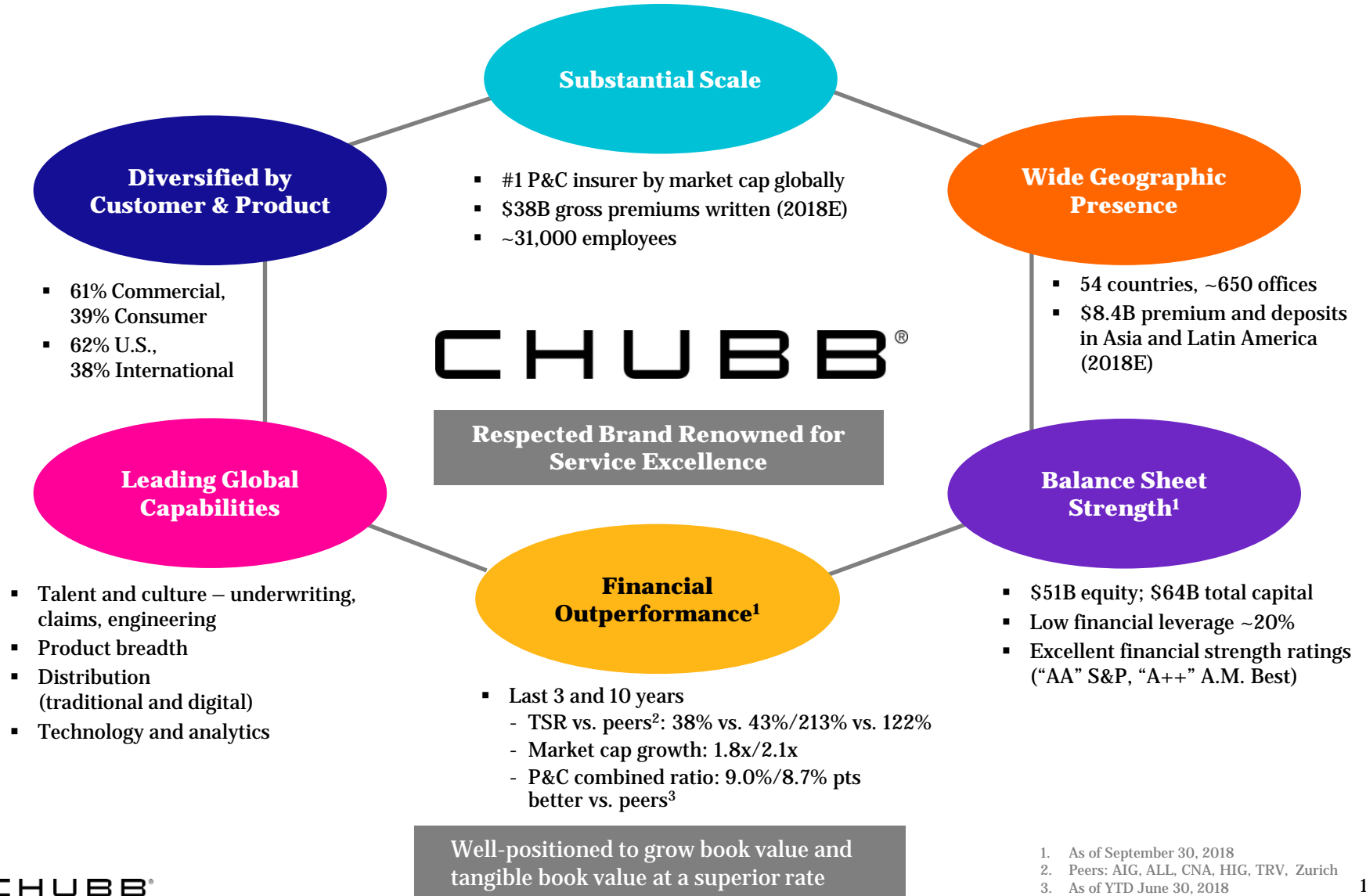
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CHUBB®

Chubb Limited  
Investor Presentation  
December 2018

# A Unique, Highly Competitive Global Insurance Brand

A global P&C insurer, serving large corporate, mid-market and small businesses and lower-middle income to high net worth consumers through brokerage, agency and direct-to-consumer distribution channels, positioned for profitable growth and outperformance



# What Distinguishes Chubb?

## Global, Balanced Portfolio of Profitable Market-Leading Businesses with Substantial Scale and Scope

### North America (\$24B GPW)<sup>1</sup>

- #1 commercial lines – \$18B
  - #1 in major and multinational accts – \$8B
  - Top 4 in mid-market – \$6B
  - #3 excess and surplus lines – \$2B
  - #1 crop – \$2B
- #1 high net worth personal lines – \$5B

### International (\$13B GPW + Deposits)

- Operations in 51 countries outside N.A.
  - One of largest regional P&C insurers in Asia and LatAm – \$6B and an Asia-focused life insurer – \$2B premium and deposits
  - Sizable European operation – \$5B
- Both commercial and consumer lines
  - Major int'l commercial P&C writer – \$6B
  - Major int'l consumer lines writer – \$7B

### Global

- #1 insurer for multinational corporations
- #1 global financial lines – \$5B
- Leader in global A&H – \$5B

### Scope

- **Product:** General (global), life (Asia)
- **Distribution:** Brokers, independent and exclusive agents, direct to consumer, banks and digital platforms
- **Customer:** All customer segments, commercial and personal

## Excellence in Execution, Underwriting & Service

### Execution & Efficiency

- Command and control, execution-oriented culture; we meet objectives
- Very competitive profile:
  - Product and distribution capabilities globally
  - Expense leader with ~5% points lower expense ratio than commercial P&C peers<sup>3</sup>

### Underwriting

- Industry-leading combined ratio, 8.7% points ahead of peers<sup>2</sup>

### Service

- Chubb brand stands for superior service and claims experience, as validated by J.D. Power, Advisen and National Underwriter

## Growth Company & Value Creation Outperformer

- Scale: #14 → #6 global insurer by market cap over past 10 years; created largest publicly traded P&C insurer globally
- Book value: 1.7x/3.1x increase over past 3 and 10 years vs. 0.8x/0.9x for peers<sup>2</sup>
- BVPS: 1.2x/2.2x increase over past 3 and 10 years vs. 1.0x/0.5x for peers<sup>2</sup>

### M&A/Partnerships

- Since 2008, M&A generated a ~20% IRR on cash deals, well in excess of our cost of capital
- Growing number of strategic partnerships with industry-leading financial institutions and technology providers (Citibanamex, DBS Bank, Grab)

- **High quality brand and proven top-tier underwriter and value creator on an absolute dollar and per share basis**
- **Executing a clear growth strategy while maintaining superior underwriting margins and growing investment income**

1. GPW figures are 2018E

2. Peers include AIG, ALL, CNA, HIG, TRV, Zurich; BV periods 6/30/08 to 6/30/18

3. Commercial P&C peers include AFG, AIG, ARGO, CINF, CNA, HIG, MKL, PRA, RLI, SIGI, THG, TRV, WRB

# YTD 2018: Improved Operating Results

	YTD 9/30/17	YTD 9/30/18	Change
<i>(\$ in billions, except per share amounts)</i>			
<b>Gross Premiums Written</b>	\$27.4	\$28.7	4.7% ↑
<b>Net Premiums Written</b>	\$22.2	\$23.2	4.7% ↑
<b>P&amp;C Combined Ratio</b> <i>CAY ex. CATs</i>	96.0% 88.0%	89.8% 88.0%	(6.2% pts) ↓ 0.0% pts ↔
<b>Core Operating Income</b>	\$2.3	\$3.5	51.3% ↑
<b>Operating Cash Flow</b>	\$3.4	\$3.9	14.2% ↑
<b>Shareholders' Equity</b> <i>Ex. FAS 115</i>	\$50.5 \$48.8	\$50.9 \$51.5	0.9% ↑ 5.4% ↑
<b>Book Value per Share</b>	\$108.74	\$110.46	1.6% ↑
<b>Tangible Book Value per Share</b>	\$65.06	\$66.83	2.7% ↑
<b>Market Capitalization<sup>1</sup></b>	\$69.7	\$61.6	(11.6%) ↓
<b>Core Operating Return on Equity<sup>2</sup></b>	6.4%	9.1%	2.7% pts ↑

1. Market capitalization change from 11/8/17 to 11/30/18

2. YTD 9/30/18 core operating ROE would be 9.8% if private equity gains (currently booked outside core operating income) were included

# Key Strategic Objectives

**Chubb is in the risk business. We have a deep underwriting culture at the heart of the company. We insist on earning an underwriting profit. We balance our desire to grow with our resolve to maintain margin. We have sufficient capability and opportunity to do both.**

Grow book value and deploy capital efficiently

- Grow revenue
- Preserve margin
- Increase investment income

Capital management to support growth

- Generate and deploy capital at attractive returns, well above our cost of capital

- Remain vital global industry leader that capitalizes on an abundance of growth opportunities
- Provide outstanding service to all forms of customers
- Execute digital transformation
- Dynamic and attractive workplace; commitment to global citizenship

**Generate attractive shareholder returns**

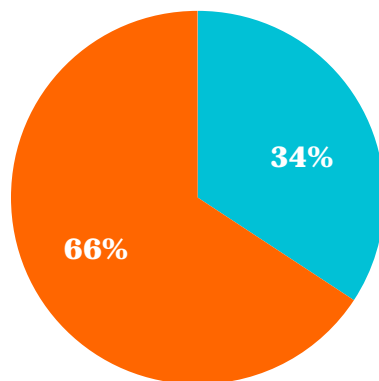
# Plenty of Opportunity Balanced Against Market Realities; We Have the Ability to Grow without Sacrificing Margin

With a broad mix of products, customer segments, distribution and local presence globally, we can capitalize on growth opportunities around the world and balance the highs and lows of insurance cycles with some segments growing more quickly while others stay flat or shrink.

## Company Snapshot Today

### Developed Segments / Stable Earnings Generators

- **Low to mid single digit expected growth**
  - U.S. Large and Specialty Commercial P&C
  - U.S. Mid-Market Commercial P&C
  - U.S. Agriculture
  - U.S. High Net Worth Personal Lines
  - International Large Commercial P&C



**2018E NPW: \$31B**

### Growth Segments / Increasing Earnings Contributors

- **Double-digit expected growth**
  - Global Small Commercial
  - International Mid-Market Commercial
  - Global A&H
  - International Personal Lines
  - Asia and Latin America P&C – Commercial and Consumer
  - Asia Life Insurance

# How We Preserve Our Industry-Leading Margins

**The environment: P&C industry prices in the U.S. and many important international markets for a number of long-tail and short-tail lines are not sufficient to earn a reasonable underwriting profit, although rates are increasing and subject to change in any market at any time. Investment yields are rising and industry reserve strength is diminishing. Chubb has the best combined ratios among all U.S. and international peers and has consistently executed its growth strategies while maintaining margin superiority.**

## Underwriting Culture & Active Portfolio Management

- Underwriting discipline and ethos in a command and control culture across the globe – strong governance processes, flat organizational structure and good management information
- Reduce exposure in areas not meeting the right risk-return profile
  - North America commercial P&C overall grew 3.6% YTD 2018; growth was 5.5% in P&C lines and financial lines declined 3.5% due to underwriting actions
  - Shrank large businesses due to market conditions:
    - Westchester E&S down 27% vs. 2008; 5-year average combined ratio = 91.2%
    - P&C reinsurance down 39% vs. 2007; 5-year average combined ratio = 78.8%
    - Lloyd's business down 33% vs. 2007; 5-year average combined ratio = 78.7%

## Expense Management

- Scale plus expense initiatives will further reduce expense ratio over time
- Significantly more efficient than commercial P&C insurers along the market cap spectrum<sup>1</sup>

### U.S. Commercial P&C: 2015 to 1H 2018 Average Expense Ratio by Market Cap

<b>Chubb</b>	<b>29.5%</b>	} Δ 4.1pts
Large (>\$15B)	33.6%	
Medium (\$5B to \$15B)	32.5%	} Δ 6.6pts
Small (<\$5B)	36.1%	

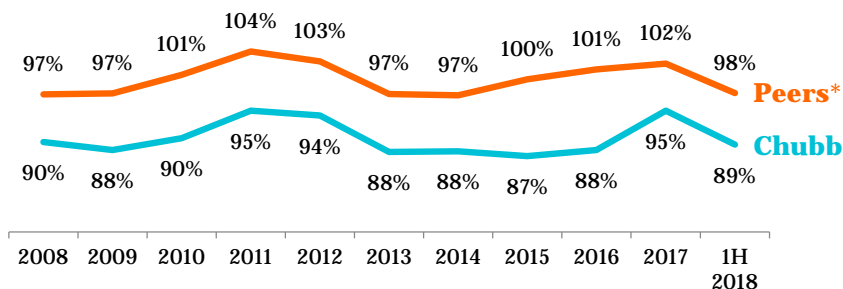
# An Industry-Leading Combined Ratio and a Growing Contribution to Earnings from Investment Income

## Margin initiatives drive Chubb's industry-leading combined ratio

### Combined Ratio

**Bottom Line:** Chubb trades market share for profit

- P&C combined ratio: 8.7% pts better vs. peers from 2008 through June 2018; better than every peer in all periods



Avg. Combined Ratio	3-Year	5-Year	10-Year
<b>Chubb</b>	<b>90.0%</b>	<b>89.3%</b>	<b>90.2%</b>
Travelers	93.8%	92.3%	93.7%
Allstate	94.0%	93.6%	95.8%
CNA	95.5%	96.3%	98.4%
Hartford	97.8%	98.0%	97.4%
Zurich	100.1%	99.2%	98.9%
AIG	113.0%	109.2%	109.1%
<b>Peer Average</b>	<b>99.0%</b>	<b>98.1%</b>	<b>98.9%</b>
<b>Chubb Outperformance</b>	<b>9.0%</b>	<b>8.8%</b>	<b>8.7%</b>

## Investment income will further enhance earning power → 94% of portfolio invested in fixed income securities

### Investment Income

- Interest rates are rising and the yield curve will steepen
- Strong annual cash flow of approximately \$5B (2018E) contributes to company's invested assets
- Reinvestment rate increased from 2.9% to 3.7% and rising versus a portfolio yield of approximately 3.5%
  - Will contribute to growth in investment income
- Well positioned in this environment for investment income to contribute to earning power
  - Every 100 basis points of yield = \$959M of additional pre-tax investment income and 1.6% of core operating ROE
- Conservative, short-duration investment portfolio as of September 30, 2018
  - 3.9 year average duration of fixed maturities
  - A/Aa average credit quality



# Chubb in the Digital Age – A Snapshot

**Strategic Objective: Transform the Chubb of today into a digital enterprise built for the digital age**

<b>Customer Experience (CX)</b>	<b>Constantly improve and augment our customer service offerings</b>	<ul style="list-style-type: none"> <li>▪ Digital channel for claims and service (Apps, Portals 2018/2019)</li> <li>▪ Chatbots as virtual assistant (live in U.S., Brazil and Australia)</li> </ul> <p>→ <b>Goal: Competitive net promoter score (NPS)</b></p>
<b>Digital Distribution</b>	<b>Create new revenue distribution channels to sell digital product</b>	<p><b>Direct to Consumer via ePartners</b></p> <ul style="list-style-type: none"> <li>▪ Sell direct to consumer – from Korean dental to Mexican auto</li> <li>▪ Sell via ePartners in U.S., Asia, LatAm; Grab, DBS, Citibanamex, airlines</li> <li>▪ Sell via multiple eBrokers: CoverHound, CoverWallet, Bunker, Insureon (U.S.)</li> </ul> <p>→ <b>Goal: &gt;\$200M GWP in 2019</b></p> <p><b>Enable digital underwriting and servicing for traditional partners (agents, brokers)</b></p> <ul style="list-style-type: none"> <li>▪ Small Commercial (U.S. and non-U.S.), Consumer (non-U.S.)</li> <li>▪ Lead generation for high net worth agents</li> </ul> <p>→ <b>Goal: Grow digitally underwritten by \$500M to \$3.3B GPW in 2019</b></p>
<b>Digital Innovation &amp; Technology</b>	<b>Adopt digital technologies and continue to innovate</b>	<ul style="list-style-type: none"> <li>▪ Substantial annual IT spend with digital focus</li> <li>▪ New digital technologies: Cloud, mobile, APIs, security, analytics, data</li> <li>▪ New product platforms: e.g. Marketplace, Bushel</li> </ul> <p>→ <b>Goal: Market-facing platforms are digitally enabled and integrated into back-office systems for anytime, anywhere access</b></p>
<b>Underwriting &amp; Claims Insights</b>	<b>Reinvent products, use analytics to enable a new customer experience</b>	<ul style="list-style-type: none"> <li>▪ Simpler small commercial and consumer products through digital distribution</li> <li>▪ Artificial intelligence and data reducing underwriting and claims questions</li> <li>▪ Predict and prevent: IoT sensors: partnership with Hartford Steam Boiler</li> </ul>
<b>Foundational Capabilities &amp; Processes</b>	<b>Improve outcomes and efficiencies, reduce expenses in back office</b>	<ul style="list-style-type: none"> <li>▪ Use of robotics, artificial intelligence to eliminate low value activities</li> <li>▪ Live today with &gt;32 use cases, number growing</li> <li>▪ 100 agile process teams and growing; reducing product development cycle times</li> </ul> <p>→ <b>Goal: &gt;\$350M savings by year-end 2022, \$500M by year-end 2023</b></p>

# Chubb's Brand in Action: A Commitment to Global Citizenship

We exist to **protect the present and secure the future** and we do this by:

- Providing the security from risk that allows society – people and businesses – to grow and prosper
- Sustaining a culture of integrity, inclusion and opportunity
- Strengthening our communities through our dedication to protecting the environment, expanding educational opportunity, improving health and promoting the rule of law



## **Giving Back – The Chubb Foundation**

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- Established 2007
- Mission focused on sustainability – not simply giving aid but addressing a problem/opportunity in the community e.g., learn to grow a crop
- Over \$100 million in Chubb contributions to the Foundation in the last 10 years
- Focus: Education, Poverty & Health, Environment; significant support for refugees and displaced people



## **Diversity and Inclusion**

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- Want best and brightest to feel equipped and comfortable to thrive and contribute their best regardless of race, gender, color, creed or sexual orientation
- Commitment to opportunity for all through an inclusive and equitable environment
- Leadership accountability for improving the advancement of women and people of color
- Extensive affinity groups and mentoring



## **Protecting the Environment**

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- Recognizing and responding to the reality of climate change across our businesses
- Managing environmental risk for our customers with innovative insurance products and engineering solutions
- Supporting environmental resiliency projects throughout the world including on the Florida coast, on Mexican reefs and in Indonesian forests
- Ensuring that our own operations adhere to the highest environmental standards and reducing emissions



## **The Chubb Rule of Law Fund**

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- Established 2008
- Unique corporate commitment to build and strengthen the rule of law throughout the world
- Supported 34 projects in 44 countries
- Encouraging private sector partnerships to secure the rule of law

# Strategy Has Led to Superior Growth and Stability Profile

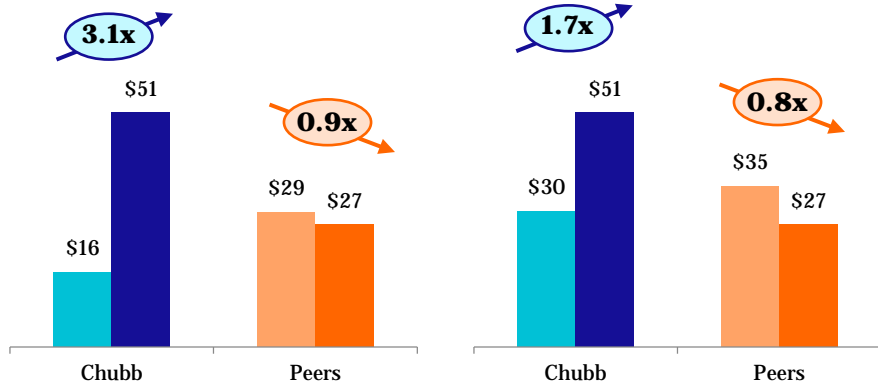
Chubb has outperformed book value growth both on a dollar and per share basis, while maintaining an industry-leading risk/return profile – top quartile in terms of core operating ROE and stability of results

## BV & BVPS Growth

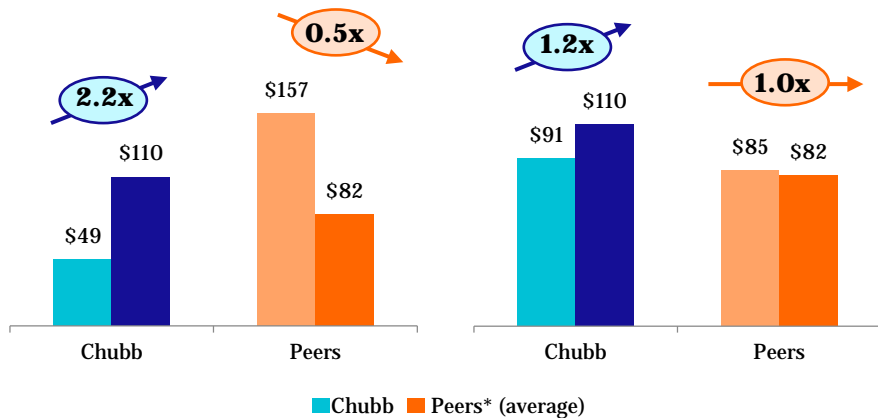
### 10-Year<sup>1</sup>

### 3-Year<sup>2</sup>

Book Value (\$B)



Book Value / Share

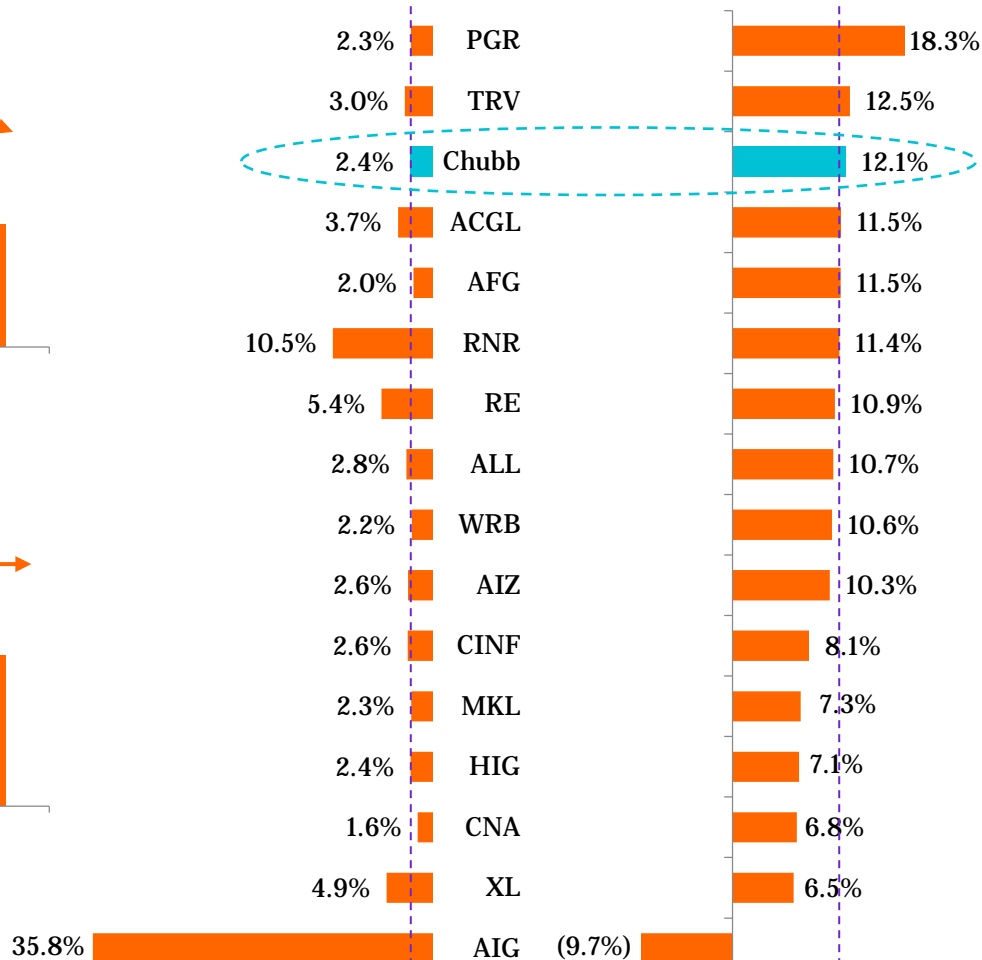


Chubb Peers\* (average)

## 10-Year Core ROE vs. Core ROE Volatility

### Core ROE Volatility

### Average Core ROE



Top Quartile: 2.3%

Top Quartile: 11.5%

Chubb core operating ROE including certain private equity gains normally excluded from core operating income is 12.3%

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\*Peers: AIG, ALL, CNA, HIG, TRV, Zurich

1. 6/30/08 to 6/30/18

2. 6/30/15 to 6/30/18

# Why Chubb? A Compelling Shareholder Value Creation Story

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# Chubb Limited Investor Presentation December 2018

John Keogh

*Executive Vice Chairman & Chief Operating Officer  
Chubb Limited*

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**Growth Opportunities**  
**Nimble**  
**Underwriting Discipline**

# Examples of Growth Opportunities by Region

## North America

- Middle-market and small commercial
- Large account penetration and cross-sell
- Accident and Health worksite marketing (small to large groups)
- Digital distribution through eBrokers (e.g., CoverHound, CoverWallet) and ePartners (e.g., Bunker)
- Cyber

## Europe

- Middle-market and small commercial
- High net worth personal lines (UK)
- Specialty personal lines
- Accident and Health
- Cyber

## Asia

- Middle-market and small commercial
- Standard and specialty personal lines
- Accident and Health
- Bancassurance distribution
- Digital distribution, ePartners
- Life insurance
- Cyber

## Latin America

- Middle-market and small commercial
- Standard and specialty personal lines
- Accident and Health
- Expanded independent agency force
- Bancassurance distribution
- Digital distribution, ePartners
- Cyber

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# Investor Presentation

## December 2018

**Paul Krump**

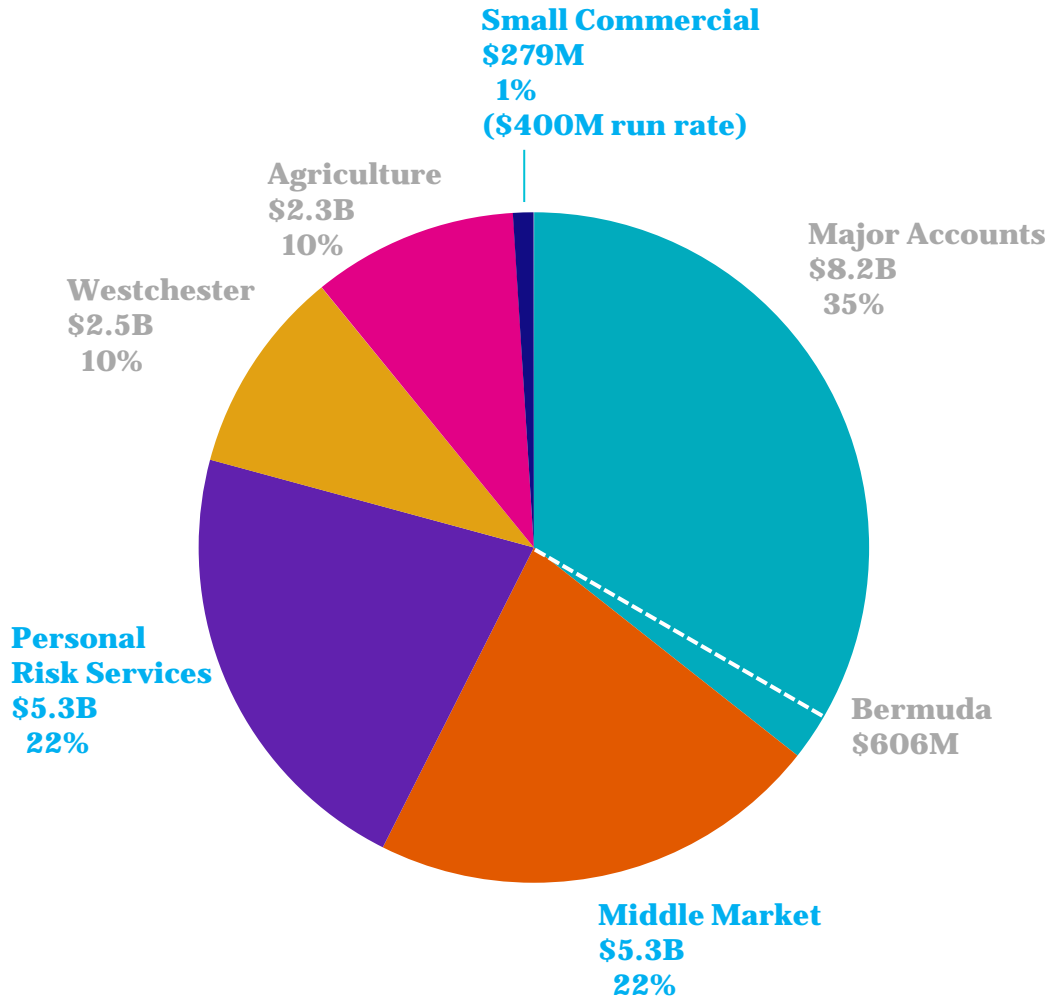
*Executive Vice President, Chubb Group*

*President, North America Commercial and Personal  
Insurance*



# North America Commercial and Personal Insurance

**North America GWP (10/1/17 – 9/30/18) = \$23.8B**  
**Combined Ratio – 88.2%**



## Middle Market

- Products: 70+
- More than 25 industry practices
- Vast distribution network across North America, often encompassing both personal and commercial lines
  - 48 offices, 3000+ agents

## Small Commercial

- Fills a critical gap in Chubb's portfolio
- Provides an exceptional insurance offering for small businesses
- Total digital experience = cost + efficiency

## Personal Risk Services

- The recognized leader in high net worth personal lines market
- Unrivaled client service and elite brand, leading to 95%+ retention
- Industry's deepest underwriting and risk management expertise with largest portfolio of clients

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December 2018

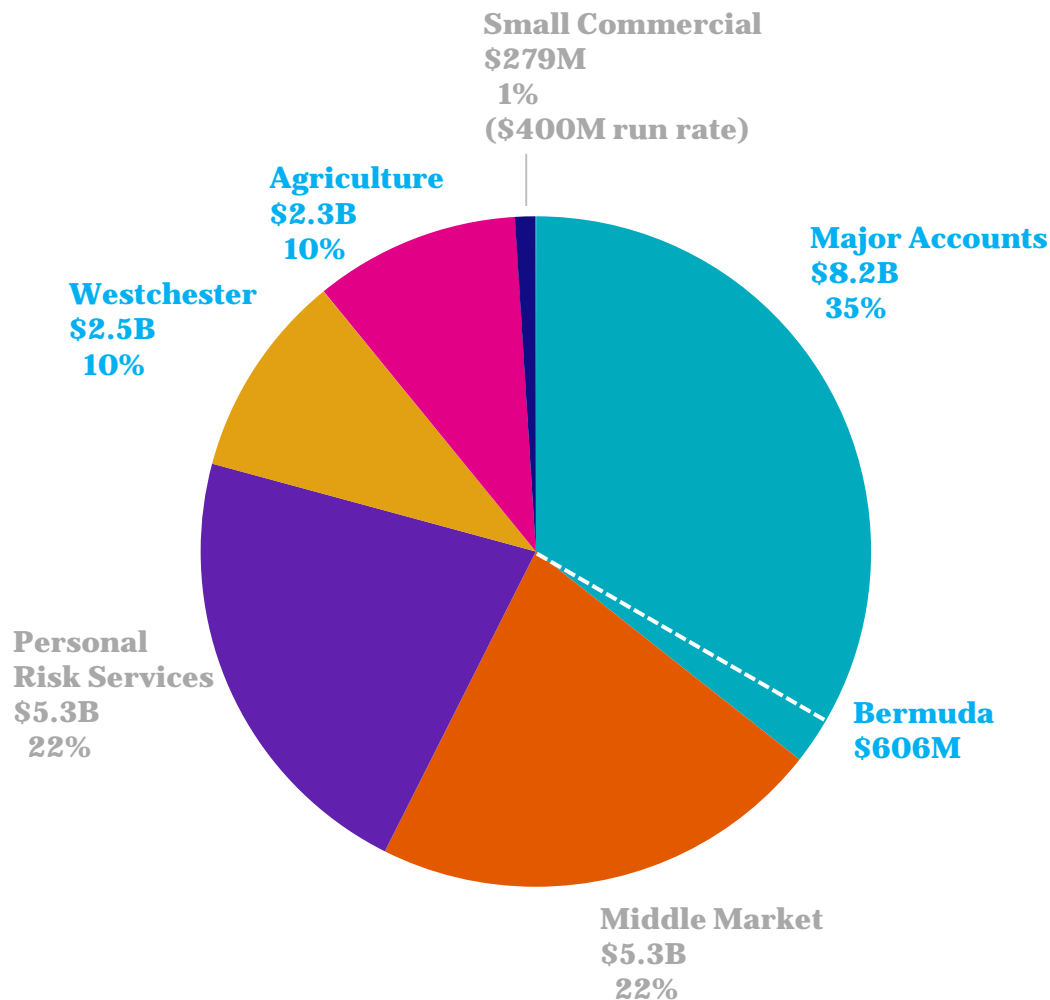
**John Lupica**

*Vice Chairman, Chubb Group*

*President, North America Major Accounts and  
Specialty Insurance*

# North America Major Accounts and Specialty Insurance

**North America GWP (10/1/17 – 9/30/18) = \$23.8B**  
**Combined Ratio – 88.2%**



## Major Accounts – large corporate

- The leading national account franchise in the U.S.
  - More than 30 products and services
- 90%+ penetration of Fortune 1000
  - 2000 target accounts with minimal penetration (0-3 lines) = growth opportunity
- 90%+ account retention
- Chubb Bermuda high excess capabilities
- 50+ Global Client and Claims Client Executives
- Worldview service portal
  - 6,000 accounts, 10,000+ users

## Westchester – specialty E&S

- #3 E&S insurer in the U.S.
- Wide product offering and risk appetite
- Exclusive wholesale distribution

## Agriculture

- #1 crop insurer in the U.S.
- Leading technology to service the crop market
- Deep industry vertical for agriculture industry and farm and ranch

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# Chubb Limited

# Investor Presentation

## December 2018

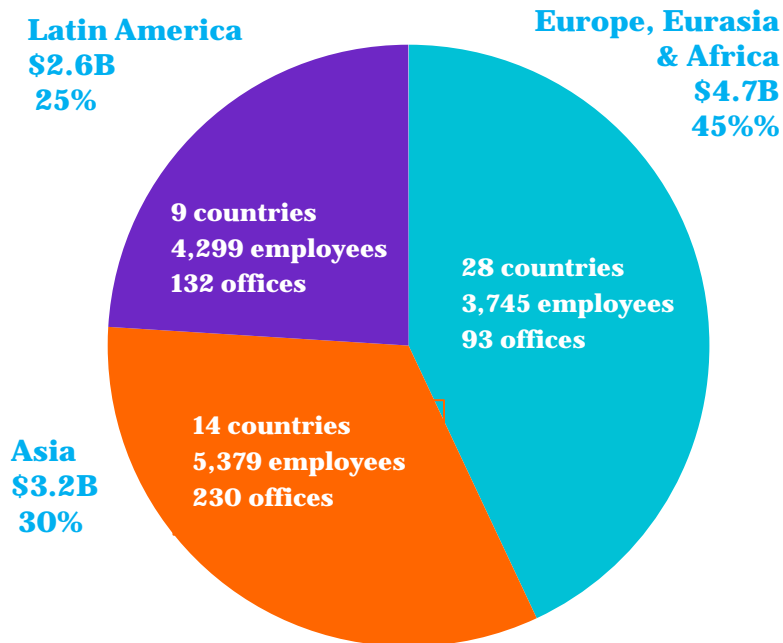
**Juan Andrade**

*Executive Vice President, Chubb Group  
President, Overseas General Insurance*

# Chubb Overseas General (COG): International General Insurance

**Chubb Overseas General GPW (9/30/17 – 9/30/18) = \$10.6B**  
**Combined Ratio – 88.8%**

## Geographic Presence and Scale



### Total Chubb Overseas General

Countries	<b>51</b>
Employees	<b>13,423</b>
Offices	<b>455</b>

## Global Capability with Deep Local Presence

### 1. Scale and scope of a global platform – delivered locally

- Local presence globally with local management, local distribution networks and relationships
- Chubb culture and global resources (financial strength, network, product, underwriting, leadership, technology)
- Insurance licenses in 51 countries and territories outside N.A.; partners in over 150 countries

### 2. Diversification

- By geography: presence throughout the world, including developed and developing markets
- By customer: commercial (large corporations to small businesses) and personal lines (general consumer to high net worth)
- By product: extensive product range in commercial P&C, A&H and Personal Lines
- By distribution: large brokers, independent agents and brokers, banks, sponsors, direct marketing, digital

### 3. Highly focused on growth and profitability

- COG has achieved growth of 8.2% CAGR over last 5 years despite FX headwinds and a slowdown in Europe
- Emerging markets have contributed significant growth and COG is well positioned to continue to benefit, particularly in Asia

# Key Growth Drivers in Our International Business

## Opportunity



### Small Commercial

- Growth across the globe, with particular emphasis on Asia and Latin America, leveraging product, technology and distribution



### Middle Market

- Growth driven by focus on targeted set of countries in three regions, as well as growth in Industry Practices, e.g., Life Sciences and Information Technology



### A&H

- Growth primarily driven by our direct marketing business, brokerage and agency, and technology



### Personal Lines

- Growth driven by a range of traditional products (auto and homeowners), specialty lines (cell phone replacement) and high net worth in select markets, with particular emphasis on Asia and Latin America



### Expanded Distribution

- Banks and new digital distribution, from Thailand and Singapore to Mexico and Brazil

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# Chubb Limited Investor Presentation

December 2018

**Sean Ringsted**

*Executive Vice President, Chubb Group  
Chief Digital Officer and Chief Risk Officer*

# Chubb Digital

## Distribution: the Digital Channel

**2019 GPW goals**  
 ePartners = >\$200M  
 eTraditional<sup>1</sup> = \$3.3B

**Competitive edge:** Chubb brand, service, product and our digital/technology capabilities

**Markets:** E-commerce platforms (e.g. gig economy, rideshare); digital savvy verticals such as retail, travel and banking providers

### 1. Traditional

Digitize the agent experience to be “on the glass” and streamline the small business journey, e.g. award-winning N.A. “Chubb Marketplace”

### 2. Digital brokers

Channel for on-line small business purchase

Fast quoting process enabled through APIs, simpler product and use of data, e.g. Coverhound, Bunker

### 3. ePartners

Embed in digital purchase path (mobile, apps) of customer – consumer, small business.

Simple products, e.g. travel, life, cyber, phone, e.g. DBS, Grab, Citibanamex

## Customer Experience: Best in Class

### Our vision

### Executing today

### Service

- Digital omni-channel to access and engage Chubb
  - Apps, mobile-friendly sites and portals
  - Simpler language

### High Net Worth Personal Lines Mobile App

- Biometric login, voice commands
- Text and e-mail alerts
- Simple bills and quick pay
- Value-added services
- eSignature

**Claims:** Digital notice of loss

### Data & Analytics

- Leverage our data assets to enrich the customer experience
- Combine power of Chubb internal data with external information
- Machine learning at scale

### Small Commercial

- Two-question quoting
- Quote to bind <5 min

### Predict and Prevent

Move from  
 Repair and Replace  
 to  
*Predict and Prevent*

### Chubb/Hartford Steam Boiler sensors pilot

- Aim: anticipate and prevent consumer and commercial customer losses
- Water leaks, changes in temperature and humidity, vibration, etc.
- Expand model for broader categories of losses and occupancies



# Explanatory Note

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This document and the remarks made during the presentation today may contain forward-looking statements, both written and spoken, including as defined in the Private Securities Litigation Reform Act of 1995. Words such as “believe,” “anticipate,” “estimate,” “project,” “should,” “plan,” “expect,” “intend,” “hope,” “feel,” “foresee,” “will likely result,” or “will continue,” and variations thereof and similar expressions, may identify forward-looking statements and may include statements relating to Company performance including 2018 performance, growth opportunities, strategic initiatives (including digital), pricing and business mix, and economic and insurance market conditions including foreign exchange and interest rates. Such statements involve risks and uncertainties that could cause actual results to differ materially, including, without limitation, the following: competition, pricing and policy term trends, the levels of new and renewal business achieved, the frequency of unpredictable catastrophic events, actual loss experience, uncertainties in the reserving or settlement process, integration activities and performance of acquired companies, loss of key employees or disruptions to our operations, new theories of liability, judicial, legislative, regulatory and other governmental developments, litigation tactics and developments, investigation developments and actual settlement terms, the amount and timing of reinsurance recoverable, credit developments among reinsurers, rating agency action, possible terrorism or the outbreak and effects of war, economic, political, regulatory, insurance and reinsurance business conditions, potential strategic opportunities including acquisitions and our ability to achieve and integrate them, as well as management’s response to these factors, and other factors identified in our filings with the Securities and Exchange Commission.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. The Company undertakes no obligation to publicly update or review any forward-looking statements, whether as a result of new information, future events, or otherwise.

This document and the remarks made during the presentation today may also contain non-GAAP financial measures. Reconciliations of these non-GAAP financial measures to the most direct comparable GAAP measures and related information are provided in our most recent quarterly earnings press release and financial supplement, which are available on the Investor Relations section of our website at [investors.chubb.com](http://investors.chubb.com), and in the pages that follow in this presentation.

# Regulation G - Non-GAAP Financial Measures

(in millions of U.S. dollars except ratios and share data)

The following non-GAAP financial measures, which may be defined differently by other companies, are important for an understanding of our overall results of operations and financial condition. However, they should not be viewed as a substitute for measures determined in accordance with generally accepted accounting principles (GAAP).

## **Core Operating Income**

Core operating income is a non-GAAP financial measure that excludes the after-tax impact of adjusted net realized gains (losses), net realized gains (losses) included in other income (expense) related to partially owned entities, Chubb integration expenses, and the amortization of the fair value adjustments related to purchased invested assets and long-term debt from the Chubb Corp acquisition. We exclude adjusted realized gains and losses because the amount of these gains (losses) are heavily influenced by, and fluctuate in part according to the availability of market opportunities. We exclude Chubb integration expenses due to the size and complexity of this acquisition. These integration expenses are distortive to our results and are not indicative of our underlying profitability. We believe that excluding these integration expenses facilitates the comparison of our financial results to our historical operating results. Chubb integration expenses are incurred by the overall company and are therefore included in Corporate. The costs are not related to the on-going activities of the individual segments and are therefore excluded from our definition of segment income (loss), as well.

The following table presents the reconciliation of Net income to Core operating income:

	<b>Q3 YTD 2018</b>	<b>Q3 YTD 2017</b>
Net income, as reported	\$ 3,607	\$ 2,328
Amortization of fair value adjustment of acquired invested assets and long-term debt, pre-tax <sup>(1)</sup>	(165)	(219)
Tax benefit on amortization of fair value of acquired invested assets and debt	32	62
Chubb integration expenses, pre-tax	(39)	(233)
Tax benefit on Chubb integration expenses	7	73
Adjusted net realized gains (losses)	33	91
Net realized gains (losses) related to unconsolidated entities <sup>(2)</sup>	292	284
Tax expense on adjusted net realized gains (losses)	<u>(25)</u>	<u>(25)</u>
Core operating income	<u>\$ 3,472</u>	<u>\$ 2,295</u>

(1) Related to the acquisition of The Chubb Corporation.

(2) Realized gains (losses) on partially owned entities, which are investments where we hold more than an insignificant percentage of the investee's shares. The net income or loss is included in other income (expense).

# Regulation G - Non-GAAP Financial Measures (continued)

(in millions of U.S. dollars except ratios and share data)

## **Core operating ROE**

Core operating return on equity (ROE) or ROE calculated using core operating income: The ROE numerator includes income adjusted to exclude after-tax adjusted net realized gains (losses), Chubb integration expenses, and the amortization of the fair value adjustment of acquired invested assets and long-term debt. The ROE denominator includes the average shareholders' equity for the period adjusted to exclude unrealized gains (losses) on investments, net of tax. Core operating ROE is a useful measure as it enhances the understanding of the return on shareholders' equity by highlighting the underlying profitability relative to shareholders' equity excluding the effect of unrealized gains and losses on our investments.

	<b>Q3 YTD 2018</b>	<b>Q3 YTD 2017</b>
Net income	\$ 3,607	\$ 2,328
Core operating income	\$ 3,472	\$ 2,295
Add: private equity gains, net of tax <sup>(1)</sup>	269	
Core operating income w/ private equity gains	<u>\$ 3,741</u>	
Equity - beginning of period, as reported	\$ 51,172	\$ 48,275
Less: unrealized gains (losses) on investments, net of deferred tax	1,033	1,058
Equity - beginning of period, as adjusted	<u>\$ 50,139</u>	<u>\$ 47,217</u>
Equity - end of period, as reported	\$ 50,934	\$ 50,471
Less: unrealized gains (losses) on investments, net of deferred tax	(549)	1,643
Equity - end of period, as adjusted	<u>\$ 51,483</u>	<u>\$ 48,828</u>
Weighted average equity, as reported	\$ 51,053	\$ 49,373
Weighted average equity, as adjusted	\$ 50,811	\$ 48,023
ROE	9.4%	6.3%
Core operating ROE	9.1%	6.4%
Core operating ROE, w/ Private equity gains <sup>(1)</sup>	9.8%	

(1) Private equity funds (PE) where we own more than 3 percent are recorded using the equity method of accounting. We record the core operating income and expenses of these PE's within "Other income (expense) - operating" and the fair value changes in the underlying value of these investments are recorded within "Other income (expense) - non-operating".

# Regulation G - Non-GAAP Financial Measures (continued)

(in millions of U.S. dollars except ratios and share data)

## **P&C CAY combined ratio excluding Cats**

P&C combined ratio is the sum of the loss and loss expense ratio, acquisition cost ratio and the administrative expense ratio excluding the life business and including the realized gains and losses on the crop derivatives. These derivatives were purchased to provide economic benefit, in a manner similar to reinsurance protection, in the event that a significant decline in commodity pricing will impact underwriting results. We view gains and losses on these derivatives as part of the results of our underwriting operations. P&C combined ratio excluding the impact of catastrophe losses and prior period development (PPD) is a non-GAAP financial measure. The combined ratio numerator includes losses and loss expenses including gains and losses on crop derivatives, policy acquisition costs, and administrative expenses. We believe that excluding the impact of catastrophe losses and PPD provides a better evaluation of our underwriting performance and enhances the understanding of the trends in our property & casualty business that may be obscured by these items.

	<b>Q3 YTD 2018</b>	<b>Q3 YTD 2017</b>
P&C combined ratio	89.8%	96.0%
Less: Catastrophe losses	5.0%	11.3%
Less: Prior period development	-3.2%	-3.3%
P&C CAY Combined ratio excluding Cats	<u>88.0%</u>	<u>88.0%</u>

# Regulation G - Non-GAAP Financial Measures (continued)

(in millions of U.S. dollars except ratios and share data)

## **Reconciliation of Book Value and Tangible Book Value per Share, excluding Unrealized Gains (Losses) on Investments**

Tangible book value per common share is a non-GAAP financial measure and is shareholders' equity less goodwill and other intangible assets, net of tax, divided by the shares outstanding. We believe that goodwill and other intangible assets are not indicative of our underlying insurance results or trends and make book value comparisons to less acquisitive peer companies less meaningful.

Adjusted book value per common share, net of tax, excludes unrealized investment gains (losses). Adjusted tangible book value per common share, net of tax, excludes goodwill and other intangible assets, net of tax, as well as unrealized investment gains (losses). We exclude unrealized investment gains (losses) because the amount of these gains (losses) is heavily influenced by changes in market conditions, including interest rate changes. We believe these measures are meaningful to understanding growth in book and tangible book value by highlighting the underlying profitability relative to shareholders' equity excluding the effect of unrealized gains and losses on our investments.

	<b>Sept. 30 2018</b>	<b>Sept. 30 2017</b>	<b>% Change</b>
Book value	\$ 50,934	\$ 50,471	
Less: goodwill and other intangible assets, net of tax	20,121	20,274	
Tangible book value	<u>\$ 30,813</u>	<u>\$ 30,197</u>	
Book value	\$ 50,934	\$ 50,471	
Less: unrealized gains and losses on investments, net of deferred tax	(549)	1,643	
Adjusted book value	51,483	48,828	
Less: goodwill and other intangible assets, net of tax	20,121	20,274	
Adjusted tangible book value	<u>\$ 31,362</u>	<u>\$ 28,554</u>	
Denominator	<u>461,100,790</u>	<u>464,158,519</u>	
Book value per share	\$ 110.46	\$ 108.74	
Tangible book value per share	\$ 66.83	\$ 65.06	
Adjusted book value per share	\$ 111.65	\$ 105.20	6.1%
Adjusted tangible book value per share	\$ 68.02	\$ 61.52	10.6%