

INVESTOR DAY 2020



Arch Investor Day Presentation

December 7, 2020

Informational Statements

The Private Securities Litigation Reform Act of 1995 (“PSLRA”) provides a “safe harbor” for forward-looking statements. This release or any other written or oral statements made by or on behalf of Arch Capital Group Ltd. and its subsidiaries may include forward-looking statements, which reflect our current views with respect to future events and financial performance. All statements other than statements of historical fact included in or incorporated by reference in this release are forward-looking statements.

Forward-looking statements, for purposes of the PSLRA or otherwise, can generally be identified by the use of forward-looking terminology such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe” or “continue” and similar statements of a future or forward-looking nature or their negative or variations or similar terminology. Forward-looking statements involve our current assessment of risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. A non-exclusive list of the important factors that could cause actual results to differ materially from those in such forward-looking statements includes the following: adverse general economic and market conditions; increased competition; pricing and policy term trends; fluctuations in the actions of rating agencies and our ability to maintain and improve our ratings; investment performance; the loss of key personnel; the adequacy of our loss reserves, severity and/or frequency of losses, greater than expected loss ratios and adverse development on claim and/or claim expense liabilities; greater frequency or severity of unpredictable natural and man-made catastrophic events; the effect of contagious diseases (including COVID-19); the impact of acts of terrorism and acts of war; changes in regulations and/or tax laws in the United States or elsewhere; our ability to successfully integrate, establish and maintain operating procedures as well as consummate acquisitions and integrate the businesses the Company has acquired or may acquire into the existing operations; changes in accounting principles or policies; material differences between actual and expected assessments for guaranty funds and mandatory pooling arrangements; availability and cost to us of reinsurance to manage our gross and net exposures; the failure of others to meet their obligations to us; changes in the method for determining the London Inter-bank Offered Rate (“LIBOR”) and the potential replacement of LIBOR and other factors identified in our filings with the U.S. Securities and Exchange Commission (“SEC”).

The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with other cautionary statements that are included herein or elsewhere. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

This presentation contains non-GAAP financial measures as defined by Regulation G of the rules of the SEC. Arch Capital Group Ltd. (the “Company”) believes these non-GAAP measures provide users of its financial information meaningful and useful insight in evaluating the performance of the Company. Investors should consider non-GAAP measures in addition to, and not as a substitute for, or superior to, the comparable GAAP measures. The reconciliation to GAAP and definition of operating income can be found in the Current Report on Form 8-K furnished to the SEC by the Company in connection with its most recent earnings press release, and is also available on the Company's website: www.archcapgroup.com. From time to time, the Company posts additional financial information and presentations to its website, including information with respect to its subsidiaries, and investors and other recipients of this information are encouraged to check the website.

Today's Speakers

Arch Capital Group Management Team



Marc Grandisson
Chief Executive Officer
Arch Capital Group Ltd.



François Morin
Chief Financial Officer
Arch Capital Group Ltd.



Nicolas Papadopoulos
Chief Executive Officer
Arch Worldwide
Insurance Group



Maamoun Rajeh
Chief Executive Officer
Arch Worldwide
Reinsurance Group



David Gansberg
Chief Executive Officer
Global Mortgage Group



Don Watson
Executive Vice President
Financial Services

Agenda



Welcome

- Introductory Comments

A Discussion With:

- Marc Grandisson
- Maamoun Rajeh
- Nicolas Papadopulo
- David Gansberg
- François Morin

Break

- Q&A
- Closing Remarks



Accelerating Out of the Turn

Marc Grandisson

*President and Chief Executive Officer
Arch Capital Group Ltd.*

Arch's Ingredients for Success in Insurance

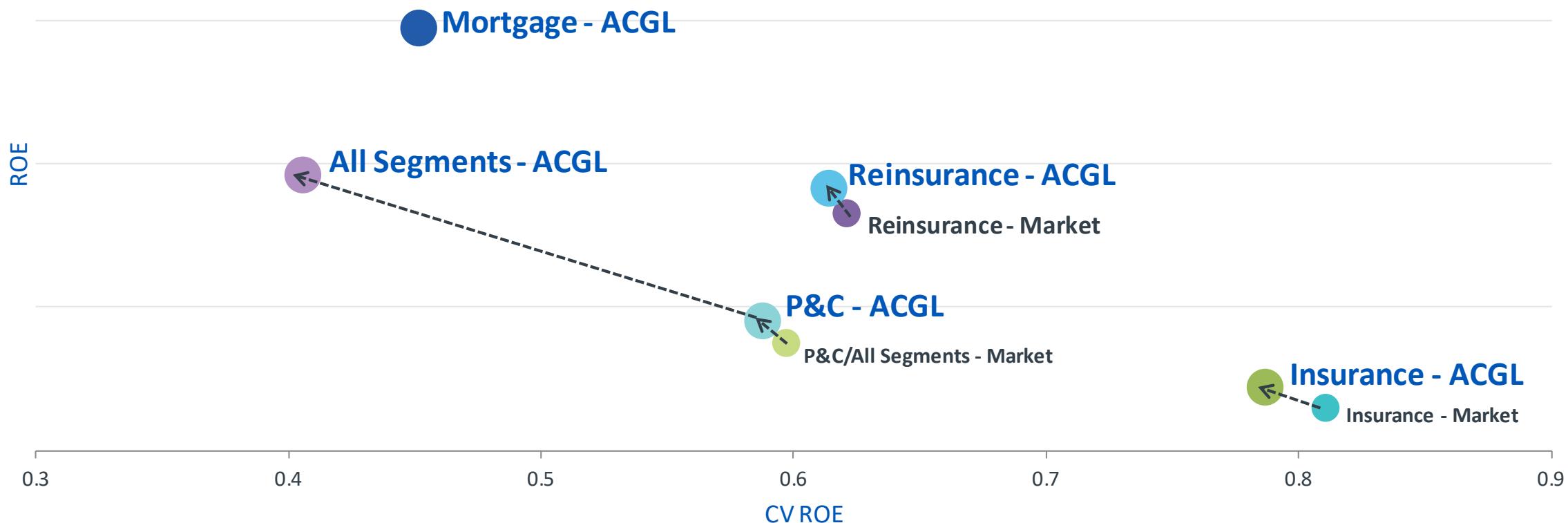


1. **Underwriting discipline** is king. *Volume is vanity, profit is sanity.*
2. **Culture** has a magnified effect on performance in the insurance space. Align compensation and shareholder returns and keep the factory ready to go!
3. Focus on **Specialty** – look for niches.
4. Reserve conservatively and manage downside.
5. Continuous improvement focus.
6. Have a **diversified suite of products** in which you can flex the opportunity set through the cycles for the whole platform.

Higher Returns with Lower Volatility

Comparison of Risk and Return

ACGL vs Market Average



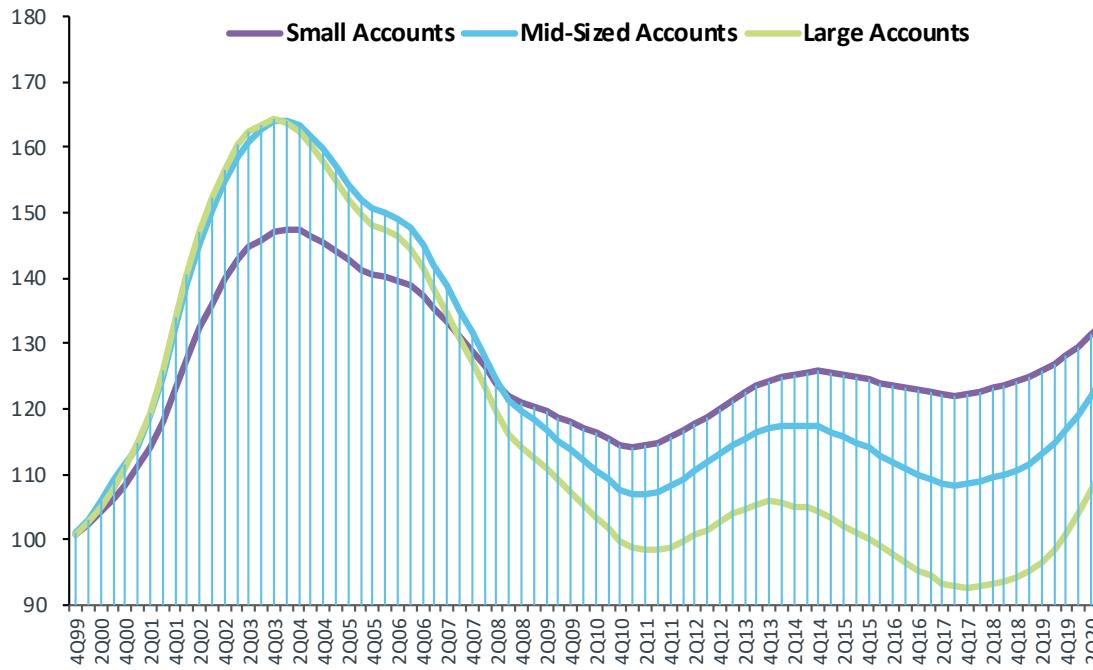
The arrows illustrate the higher expected ROE and lower expected volatility of returns for ACGL in comparison to the Market, by segment and at an overall combined level.

CV = Coefficient of variation (standard deviation /mean).

Commercial Lines Market is Hardening

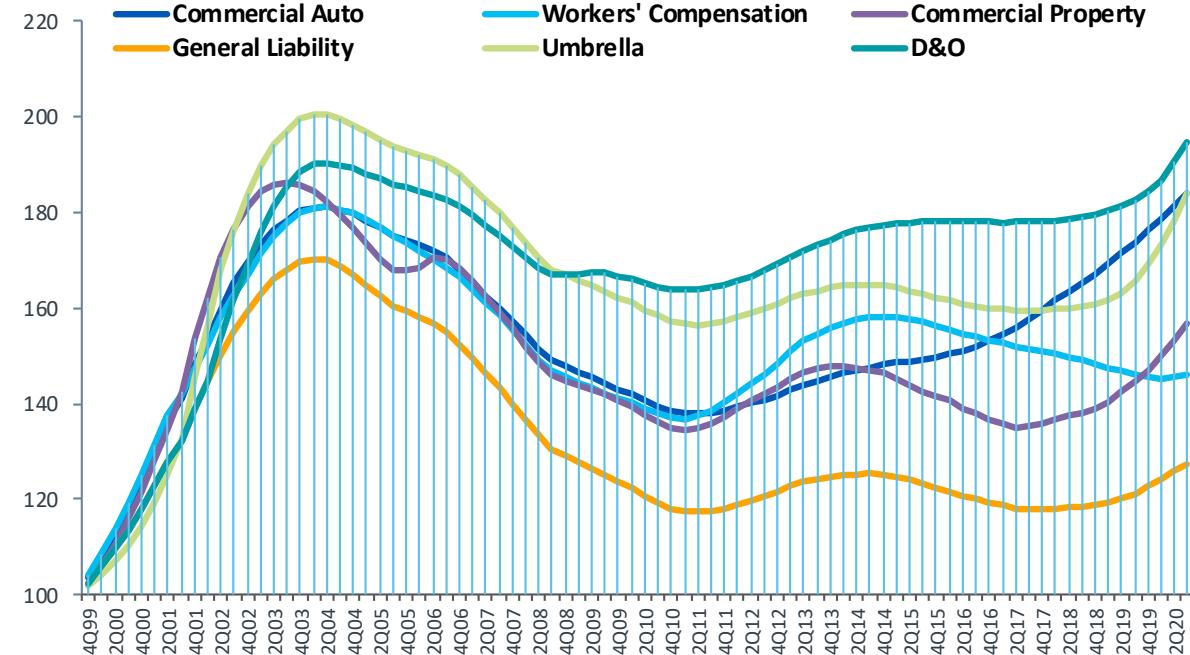
U.S. Commercial Lines – 4Q99 to 3Q20

Cumulative Quarterly Rate Increases by Account Size

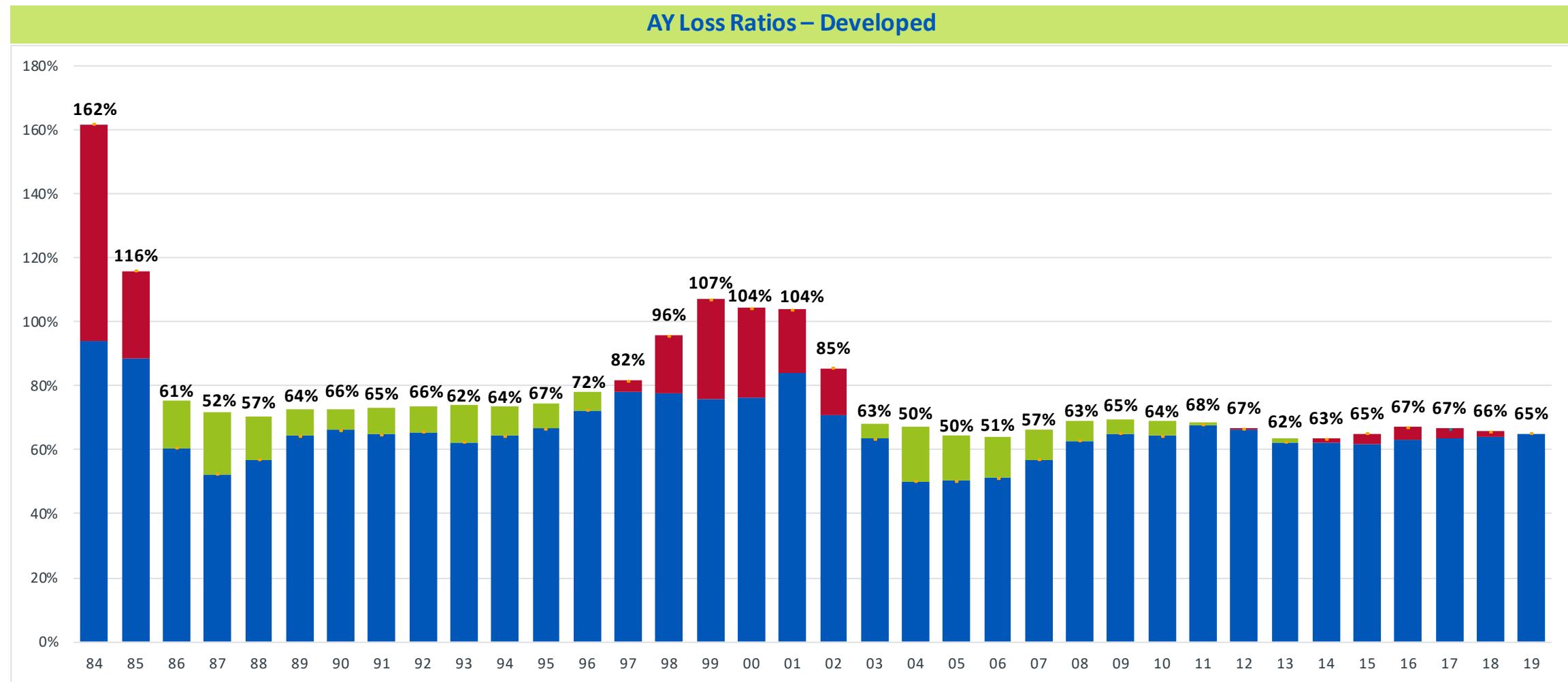


Source: CIAB

Cumulative Quarterly Rate Increases by Line of Business



U.S. Industry – Other Liability Lines*



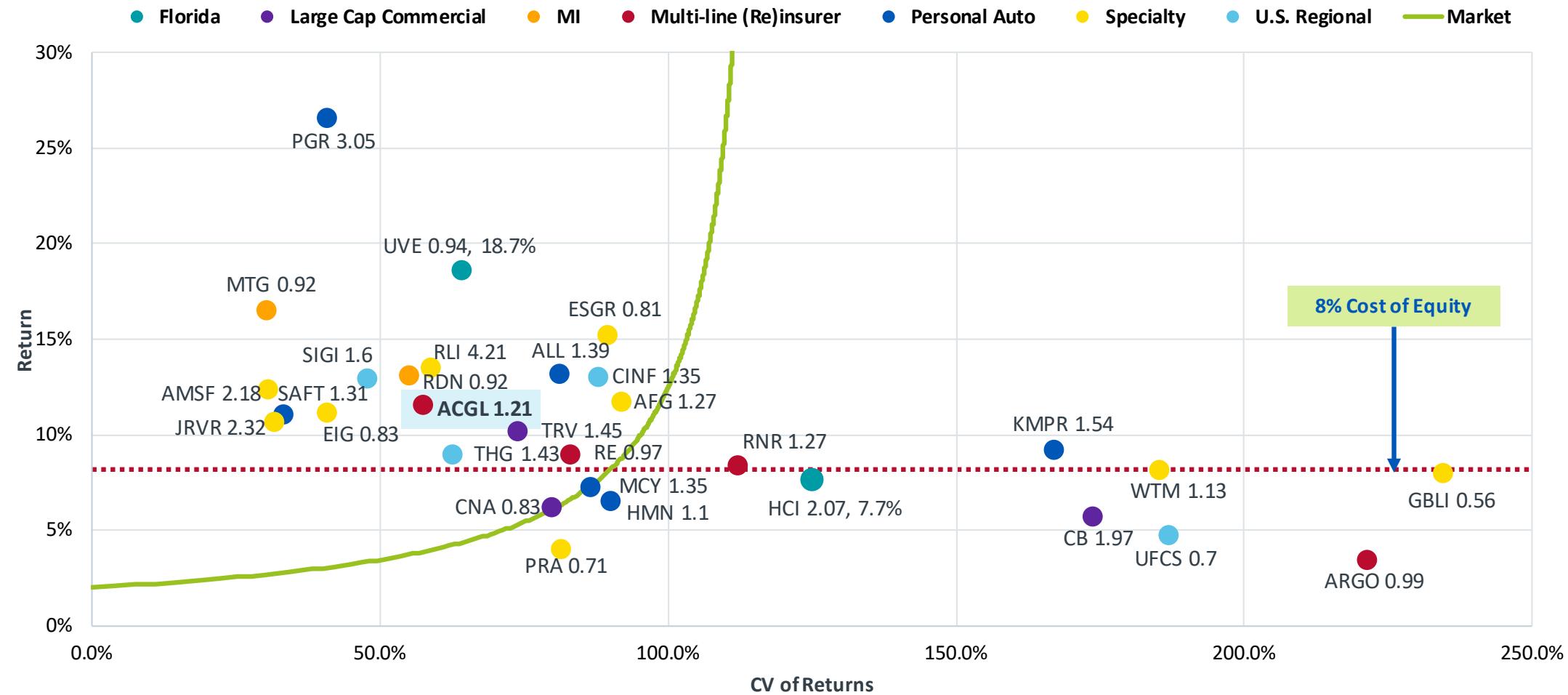
Data Source: Willis Towers Watson Consulting.

*Includes claims made and occurrence.

Accident years 1984–2019 with development through 2019 per Schedule P

Five-Year Returns vs. Coefficient of Variation

The analysis brings together the five-year return and the volatility of the returns in the form of CV



The period is 3Q15-3Q20

Source: D&P Analysis

Return represents Total Value Creation, which includes Tangible book value per share growth plus dividends

Data label shows P/TBV multiple as of 12/3/2020

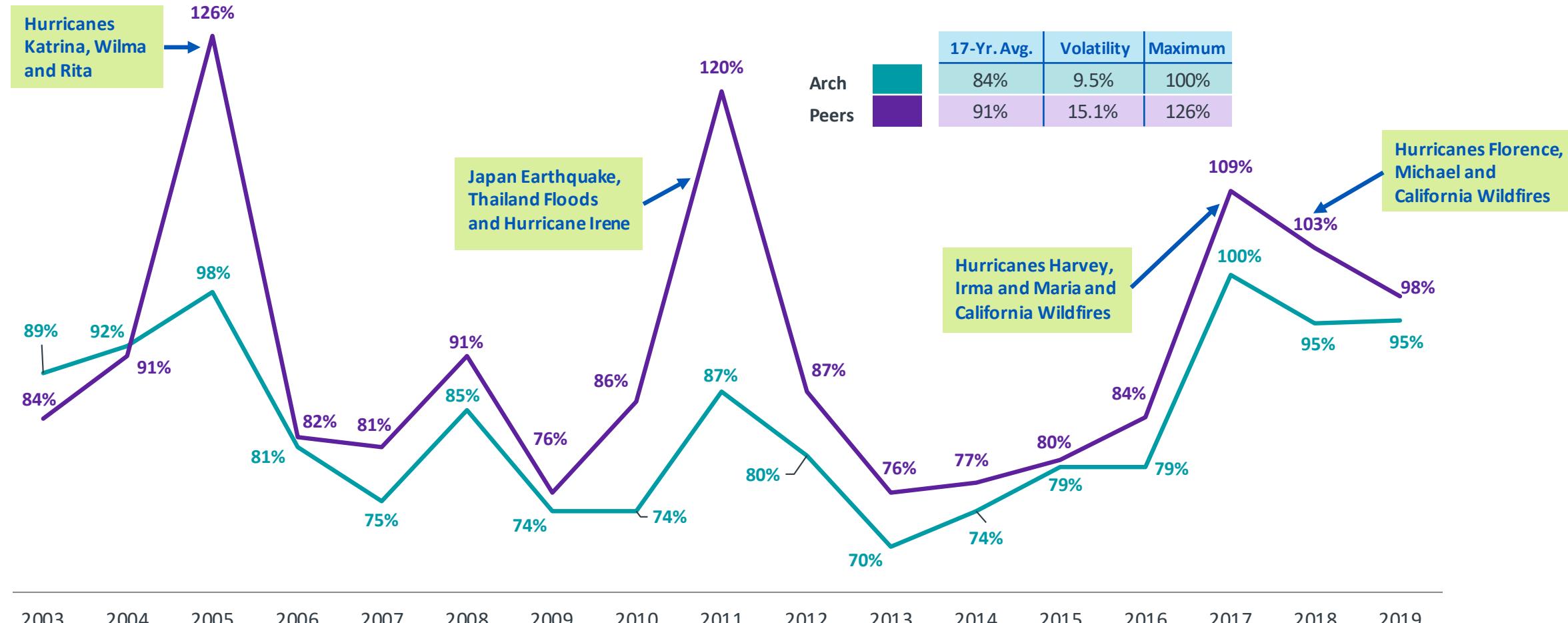
A large, high-contrast photograph of a man in a gym, wearing a black t-shirt and shorts, in the middle of a deadlift. He is holding a barbell with large weights. The background is blurred, showing other gym equipment and a person in the distance.

Reinsurance: Flexing into a Firming Market

Maamoun Rajeh
CEO, Arch Worldwide Reinsurance Group
Arch Capital Group Ltd.

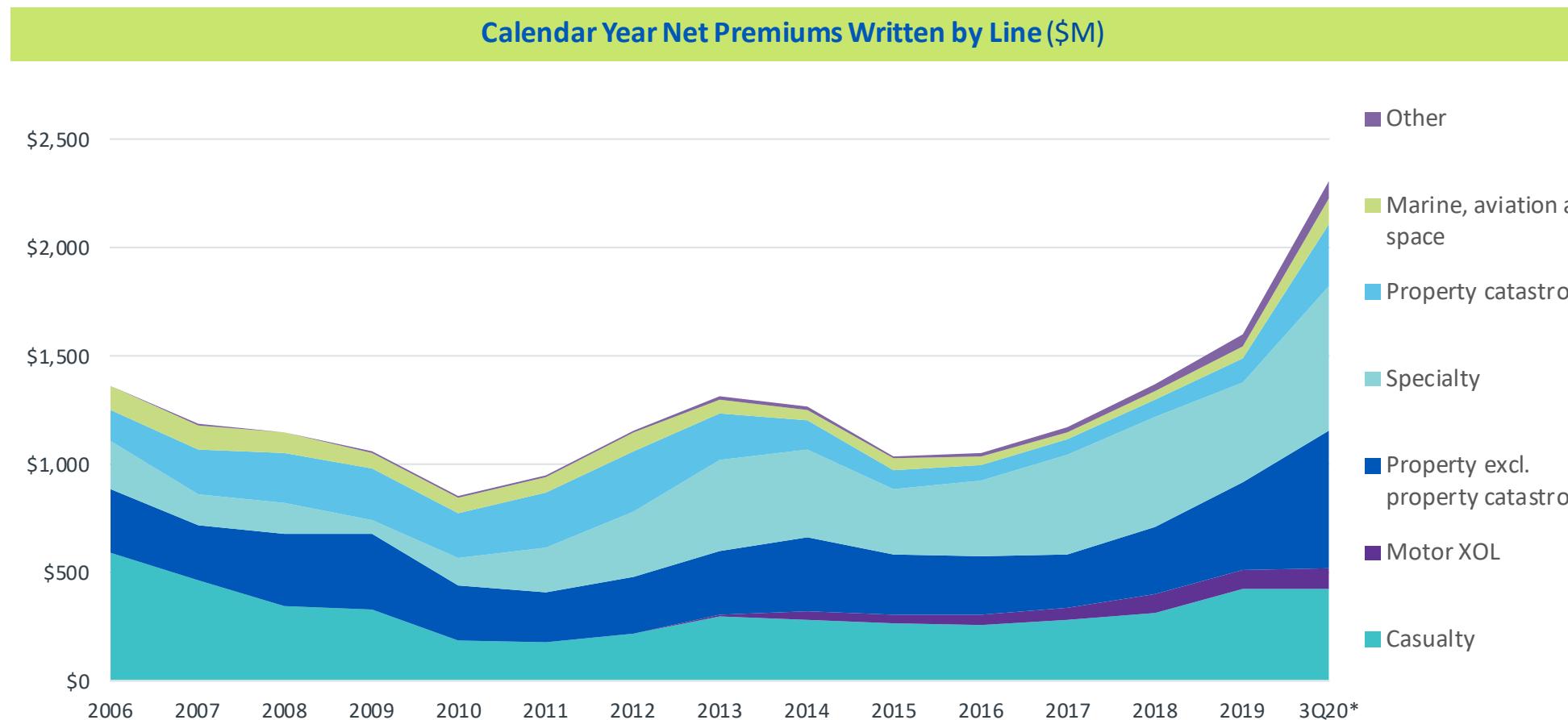
Sustained Out-Performance

Arch has historically achieved a lower combined ratio from its reinsurance operations than its peers



Peers include reinsurance segments of: Aspen, Alterra Capital (pre Markel acquisition (2012 and prior)), Allied World (pre Fairfax acquisition (2016 and prior)), AXIS, Endurance (pre Sompo Acquisition (2016 and prior)), Everest Re, Partner Re, Platinum Underwriters (pre Renaissance Re acquisition (2014 and prior)), Renaissance Re, Validus, XL, and Montpelier Re (total company through 2012).

Flexing into a Hardening Market



Reinsurance Segment: Casualty includes executive assurance, professional liability, workers' compensation, healthcare and other. Specialty includes proportional motor, surety, accident and health, workers' compensation catastrophe, agriculture, trade credit and other. Other includes life, casualty clash and other.

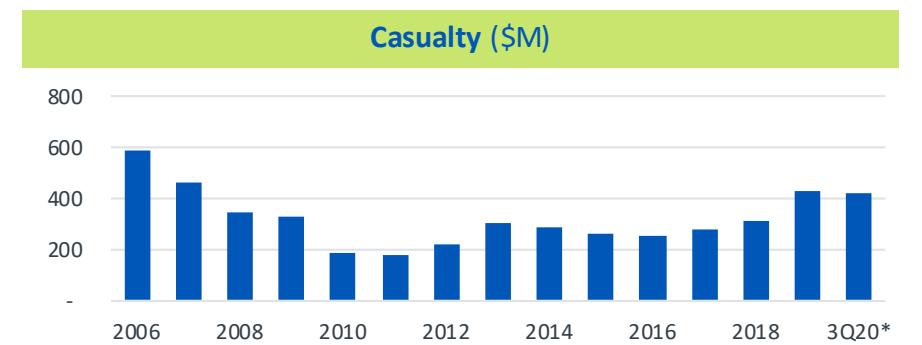
3Q20* Trailing 12 months ended September 30, 2020.

Specialty Platform, Expanding Our Capabilities

- **Cycle and Risk Management are in our DNA**
 - Generate Returns not Volume
 - Patience in Soft Markets, Offense in Hard Markets
- **Focus on our Core**
 - Specialty Lines Remain a Key Focus
 - Complex and One-off Transactions
 - Spread and Reinforce Our Underwriting Culture
- **Expand Capabilities**
 - Additional Platforms and Teams
 - Run-off – Premia
 - Coinsurance/Hybrid Solutions
 - Multiline Capacity – Watford
 - ILS Platform – Capital Partners

Specialty includes proportional motor, surety, accident and health, workers' compensation catastrophe, agriculture, trade credit and other.

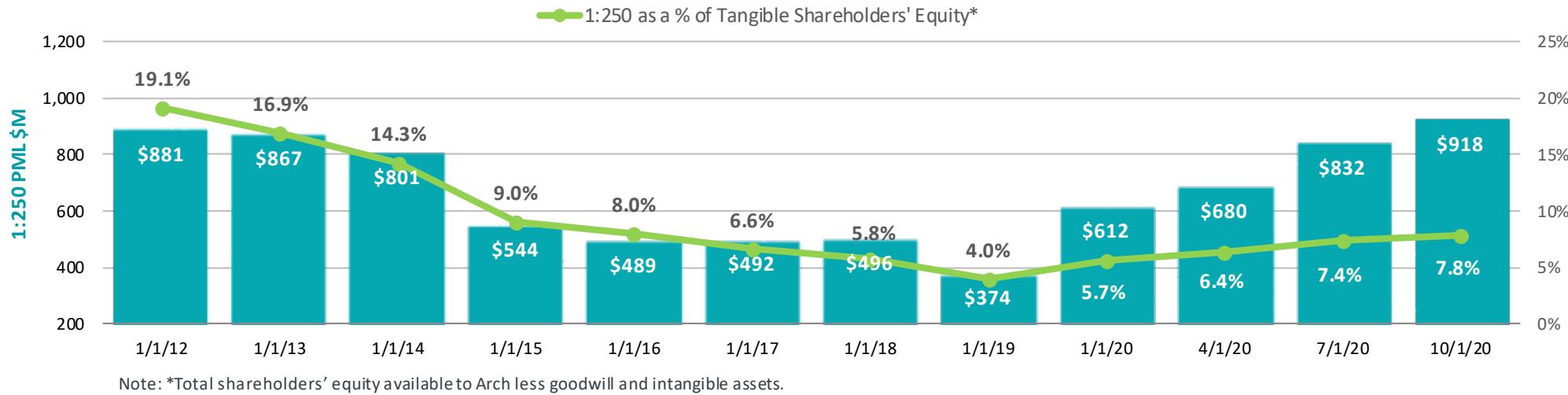
Casualty includes executive assurance, professional liability, workers' compensation, healthcare and other.



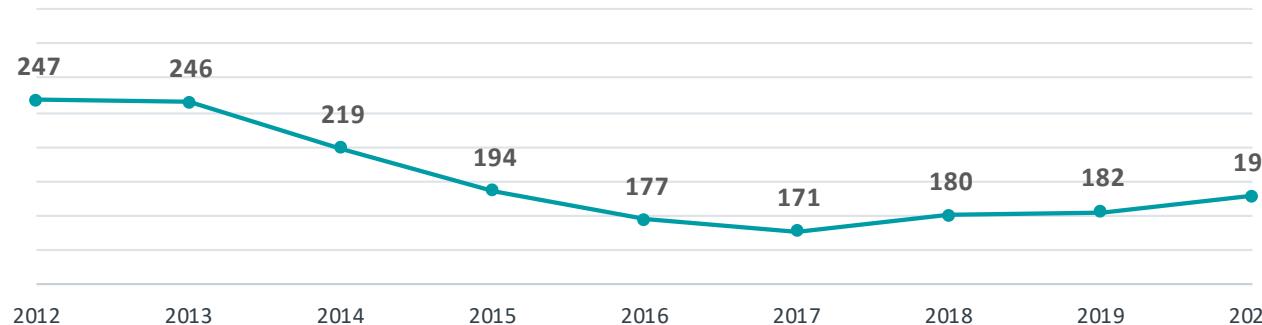
3Q20* Trailing 12 months ended September 30, 2020.

Disciplined Risk Management

ACGL Peak Zone 1:250 PML



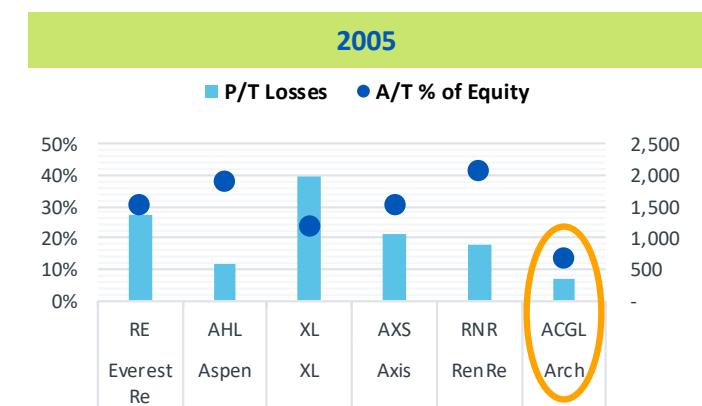
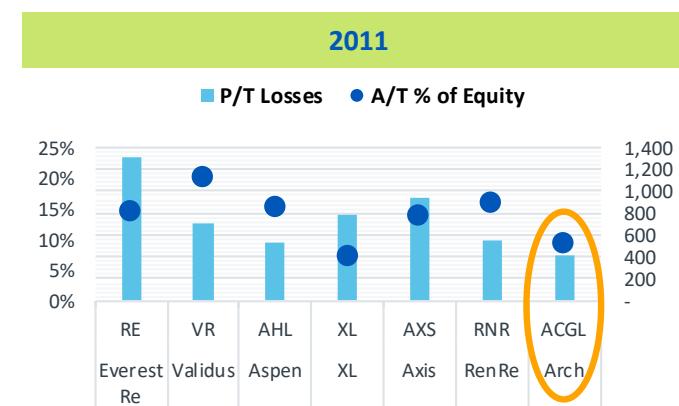
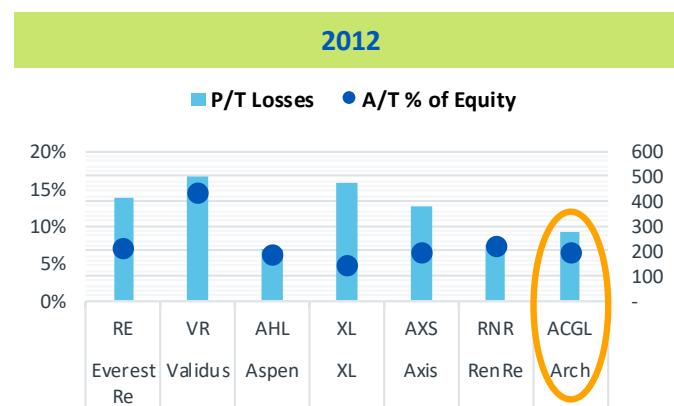
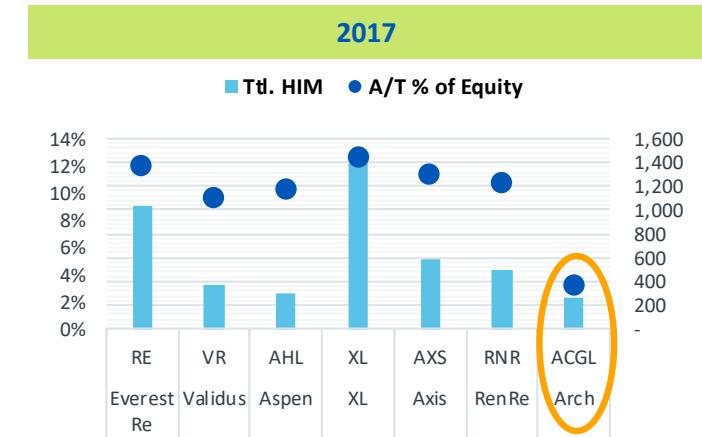
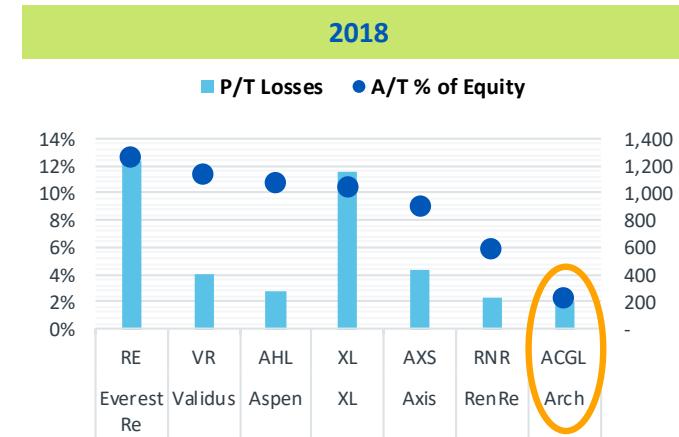
Guy Carpenter ROL Index



Source: Arch Capital, Guy Carpenter

Demonstrated Out-Performance in Active Catastrophe Seasons

Arch's commitment to cycle management and diversity of capital base has led to much lower Catastrophe losses as a % of Equity than its peers



Source: Dowling

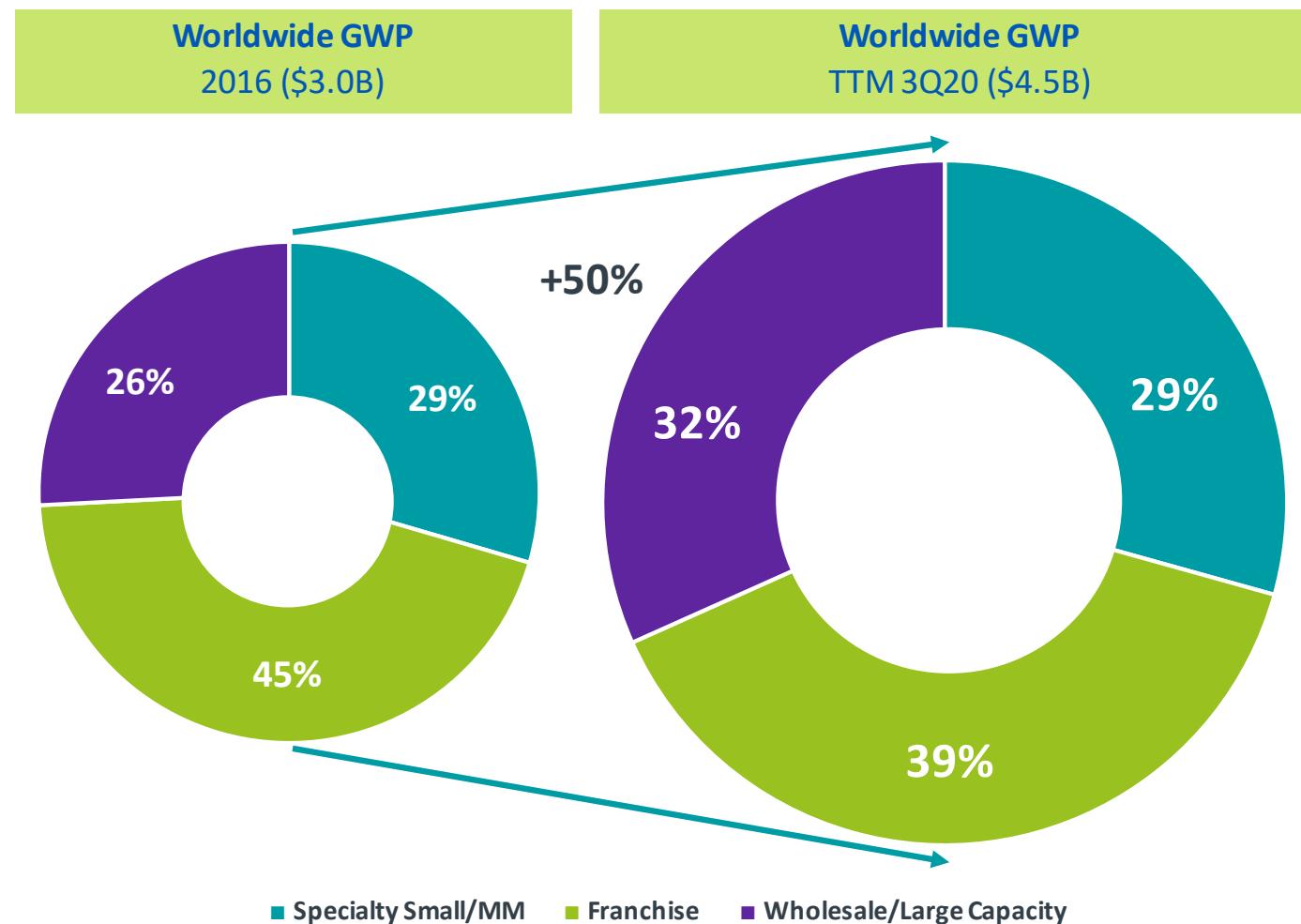


Insurance: Building Capability

Nicolas Papadopoulo

*CEO, Arch Worldwide Insurance Group
Arch Capital Group Ltd.*

Specialty Platform



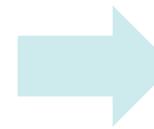
Wholesale/Large Capacity includes property, marine, offshore, casualty, high capacity EA, onshore energy, med mal. Specialty Small/Middle Market includes programs, contract binding, MM casualty, UK Regional, private D&O. Franchise Positions includes construction, alt. markets, national accts, surety, lenders, travel & accident.

Sustainable Business Model

Business Segments

Wholesale/Large Capacity

- Allocate resources to those lines with the best relative returns – profitability drives volume
- Price sensitive buyers



Market Opportunity

Higher Pricing Driving Near Term Growth & Improved Margin

Specialty Small/Middle Market

- Provides long term stable growth and higher retentions
- Where knowledge or expertise allows better risk selection
- Ease of doing business and tailored coverages



Investments in Specialty Segments to Drive Growth in All Market Cycles

- UK Regional operation
- Leverage expertise to expand into middle market specialties
 - Construction
 - Energy

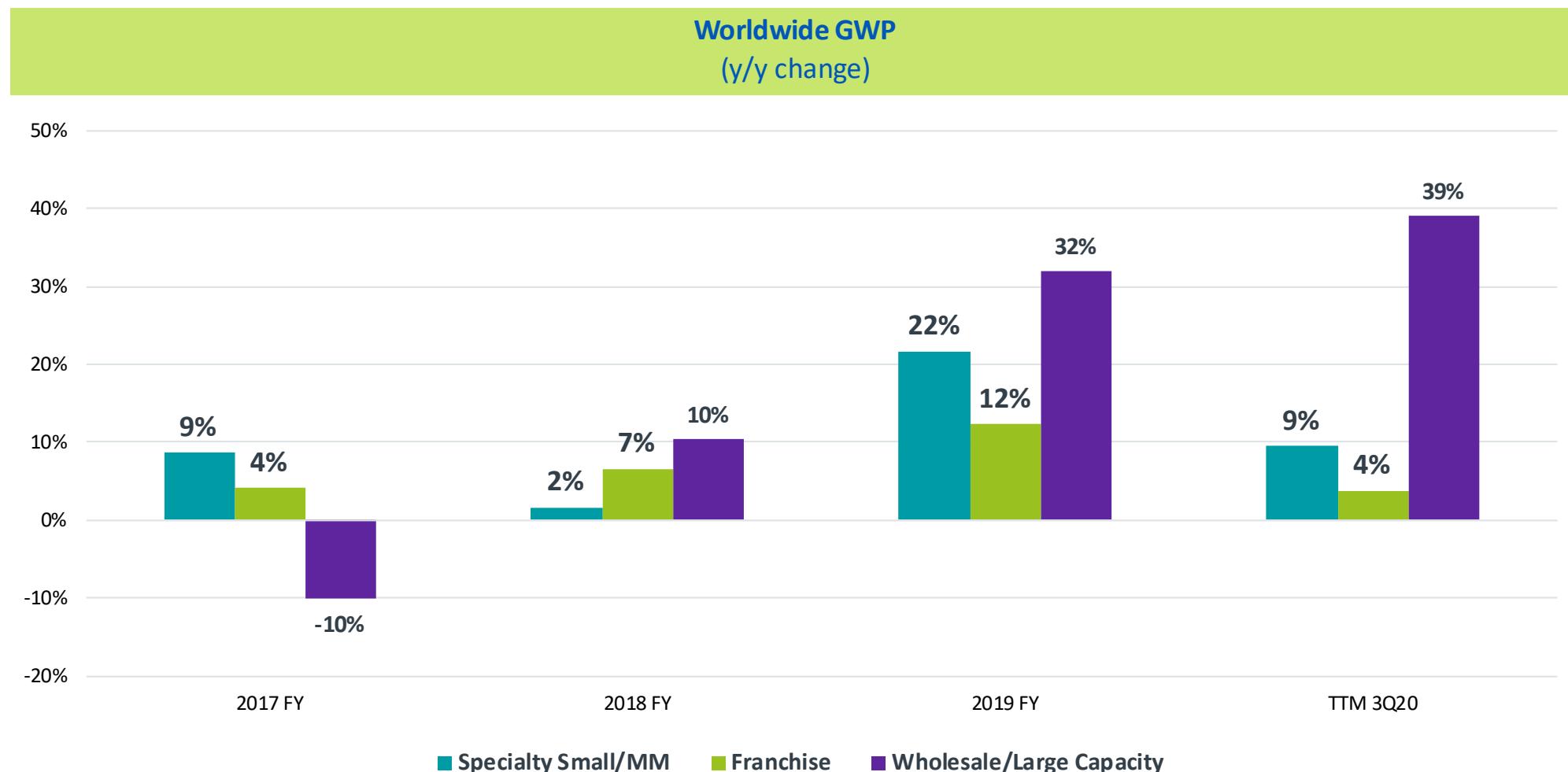


Franchise Position

- Arch is top 5 market leader in the line of business
- Service is more important relative to price

Wholesale/Large Capacity includes property, marine, offshore, casualty, high capacity EA, onshore energy, med mal. **Specialty Small/Middle Market** includes programs, contract binding, MM casualty, UK Regional, private D&O. **Franchise Positions** includes construction, alt. markets, national accts, surety, lenders, travel & accident.

Growth Driven by Wholesale/Large capacity



Wholesale/Large Capacity includes property, marine, offshore, casualty, high capacity EA, onshore energy, med mal. Specialty Small/Middle Market includes programs, contract binding, MM casualty, UK Regional, private D&O. Franchise Positions includes construction, alt. markets, national accts, surety, lenders, travel & accident.

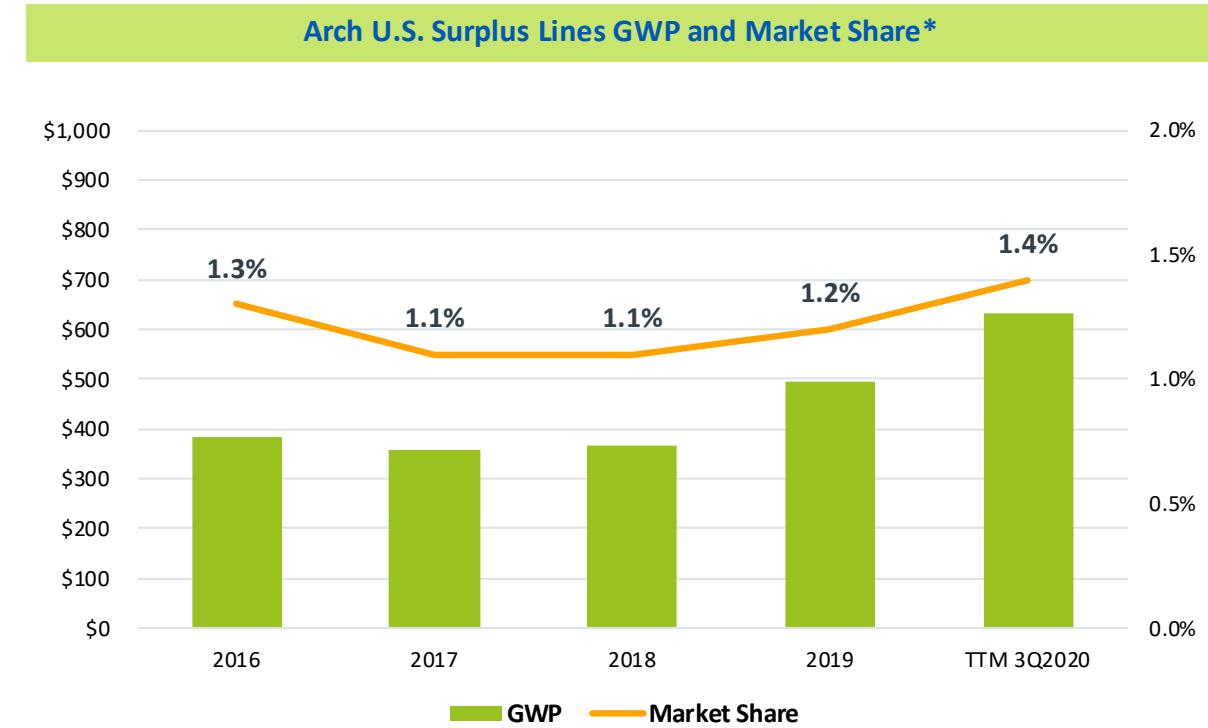
Cycle Management Driving Growth

Growth Based on Return Opportunity

- Nimbleness leads to market-leading performance
- Providing market solutions in various cyclical segments
 - D&O
 - Wholesale Casualty
 - Marine Hull
 - Wholesale Property

Fortune 500 D&O (Index 100 @ 12/31/2010)

Arch Insurance Group		
	12/31/2017	11/1/2020
Average Rate/Mil Index	62	103
Gross Limits Index	65	94
# of Clients Index	66	93



*E&S data from SNL; Arch Excludes U.S. Contract Binding

London Market Key Part of Group Strategy

Lloyd's and London Market

2016–2018

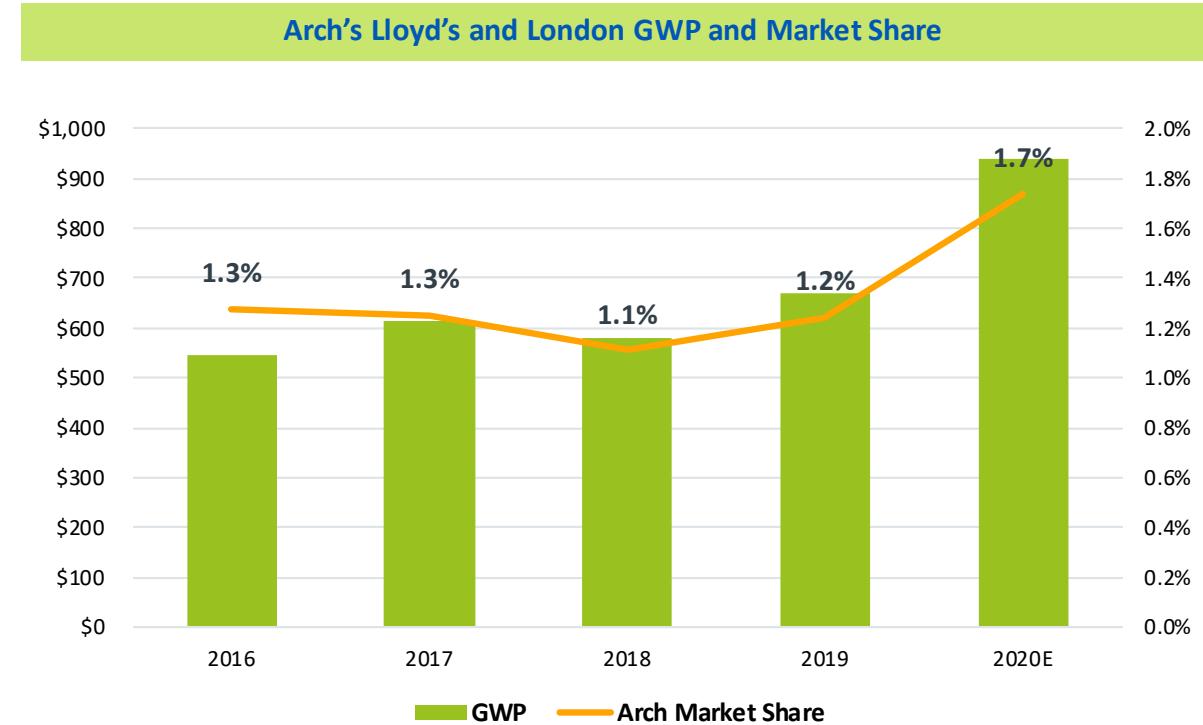
Arch was disciplined due to weak market conditions

2019–2020

Arch started growing as market conditions improved

2021

Arch will continue to flex as further hardening is expected



Underwriting Year of Account, \$M; Market data source: Lloyd's and International Underwriting Association (IUA)

Expanding Margins While Building Capabilities

Achieving Rate in Excess of Loss Cost Trends

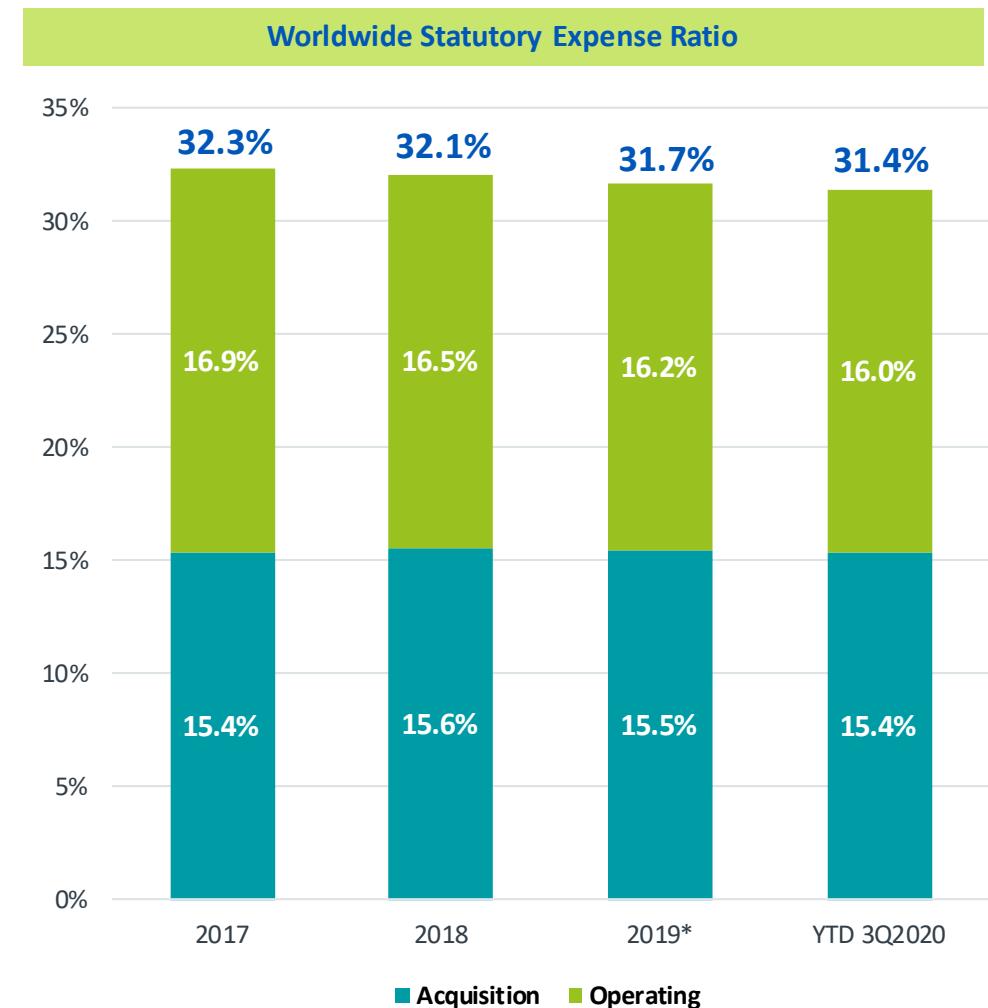
Wholesale/Large Capacity businesses seeing largest increase above loss trends

- Large D&O: **20%+**
- E&S Casualty: **20%+**
- E&S Property: **15%+**
- Wholesale International Excess Casualty: **25%+**

Other Segments Achieving Rate at or Above Loss Cost Trends

Making Investments in Future Growth & Profitability While Improving Expense Ratio

- IT infrastructure
- Efficiency initiatives
- Digital capabilities



* Arch acquired certain agency operations that added operating expenses without increasing the premium written in 2019. The numbers are adjusted to remove those amounts.



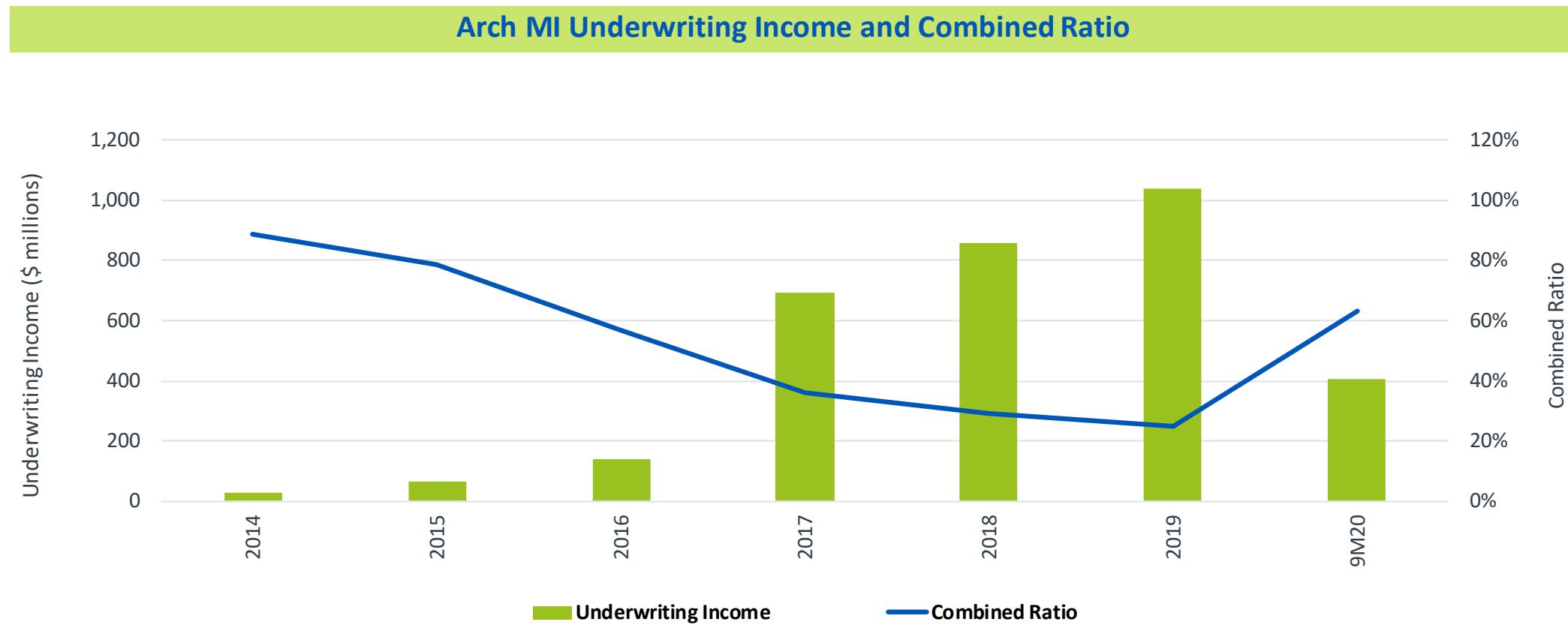
Mortgage: A Clear Path Ahead

David Gansberg

*CEO, Global Mortgage Group
Arch Capital Group Ltd.*

Arch MI Enhances Consolidated Results

Arch MI has generated over \$3 billion in underwriting income
including more than \$400 million year to date



Sources: Company reports

Better Guardrails Reduce Volatility

Substantial improvement in credit quality, PMIERs capital, risk based pricing and extensive use of risk transfer should significantly reduce Arch MI's losses in a stress scenario

Mortgage Industry Safeguards and Regulation

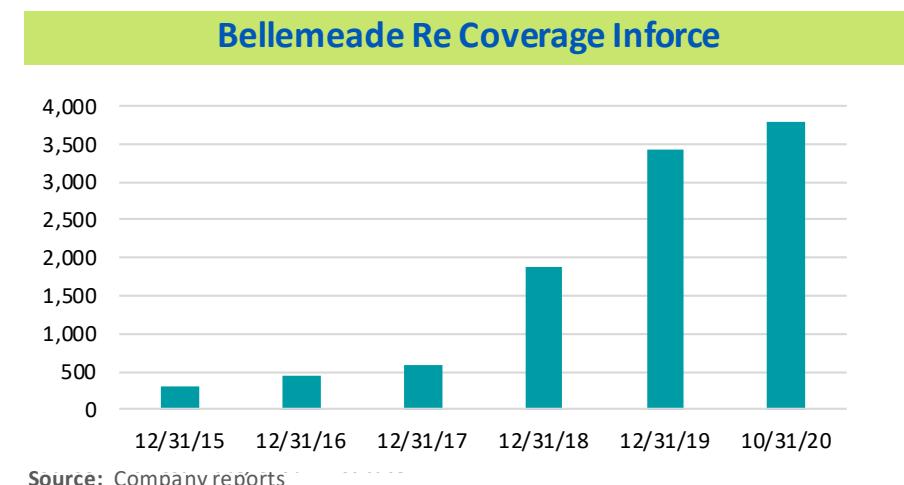
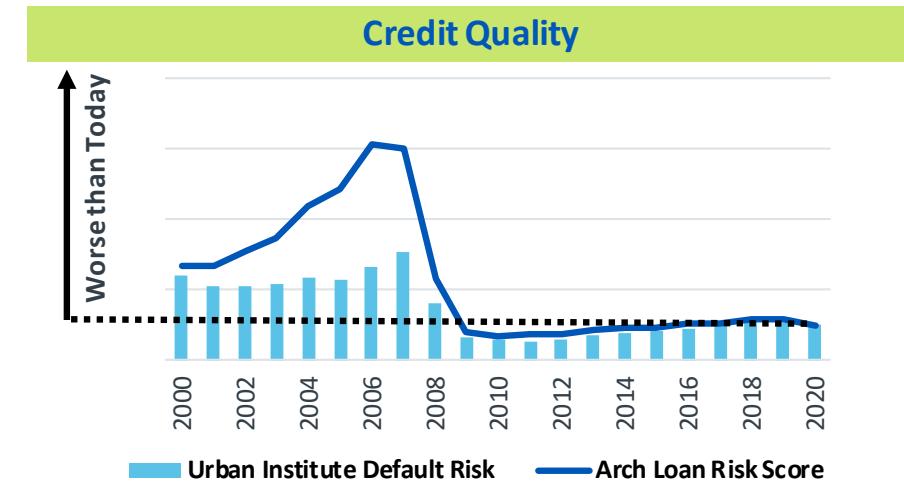
- Post-crisis standards imply very low probability that credit quality deteriorates to levels observed between 2005 and 2008
- Ability to Repay Rule and Qualified Mortgage Standards create guardrails for appropriate credit quality
- Arch estimates that ~70% of loans insured in 2007 would not be insurable under current guidelines
- PMIERs align risk with capital which reduces excessive risk taking in the industry

Risk Based Pricing Engines Better Suited than Rate Cards to Address Three Critical Issues

- Risk layering within a mortgage
- Proactive portfolio management
- Material differences in expected default rates among different housing markets

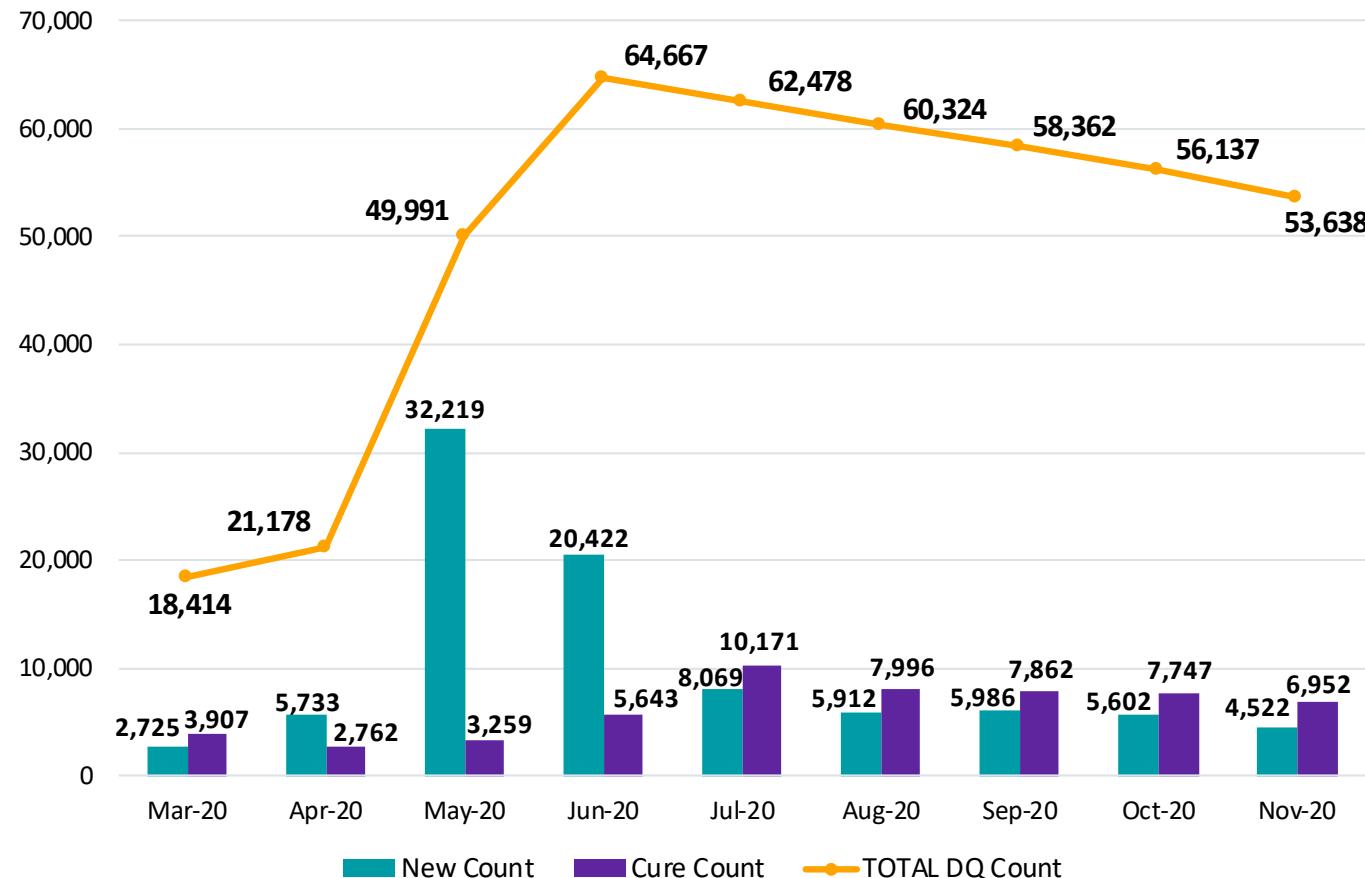
Mortgage Insurer Improvements

- Risk transfer mitigates tail risk. Introduced by Arch (UGC) in 2015, mortgage insurance linked notes are industry standard for syndicating risk
 - To date, Arch has secured nearly \$6B of coverage through its Bellemeade Re program with nearly \$4B inforce at 10/31/2020

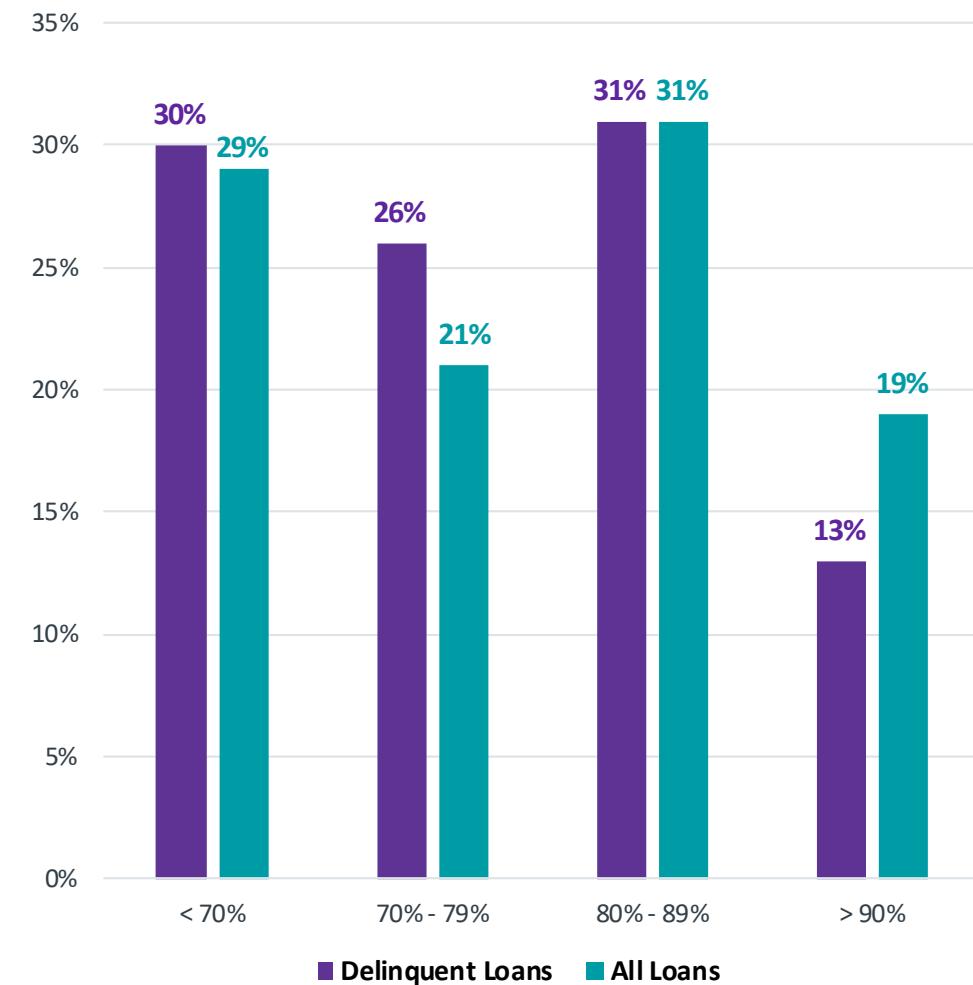


Delinquency and Risk Metrics Trending Favorably

Arch U.S. MI Delinquency Data



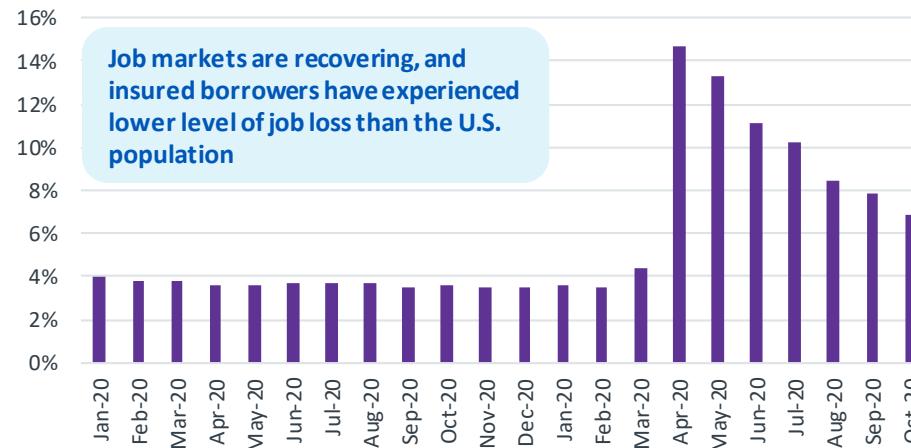
Mark-to-Market LTV (as of 9/30/2020)



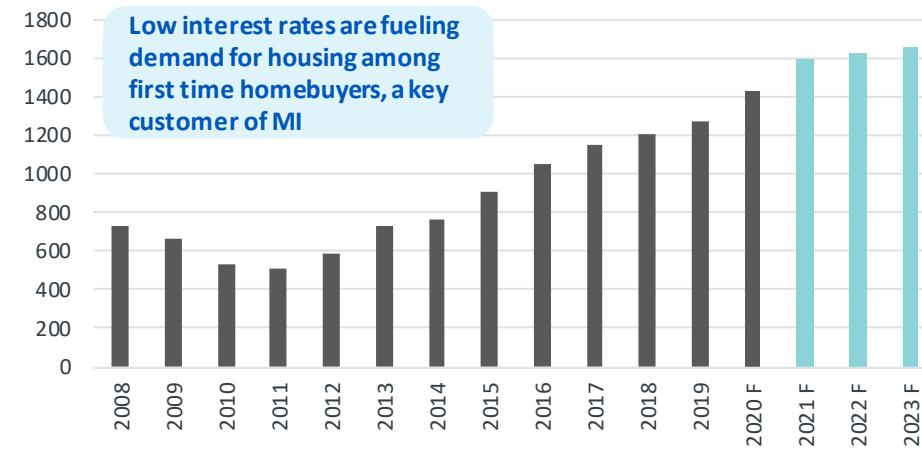
Sources: Company Reports.

Housing Markets and Credit Quality Favorable for MIs

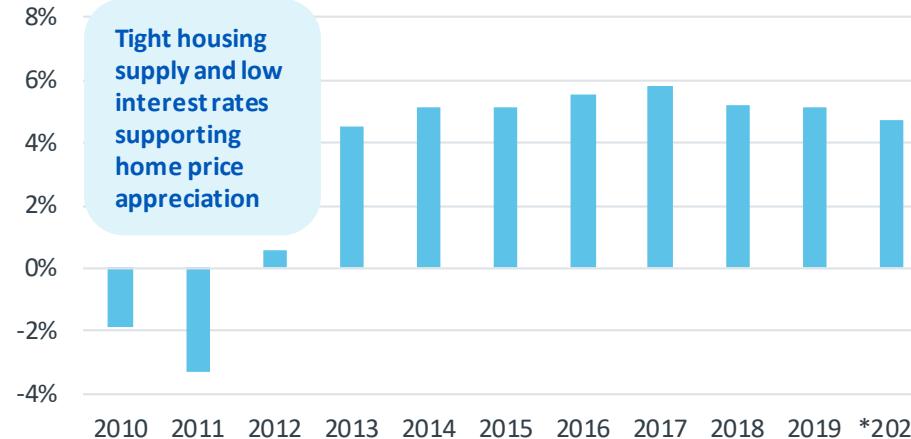
Unemployment Rate



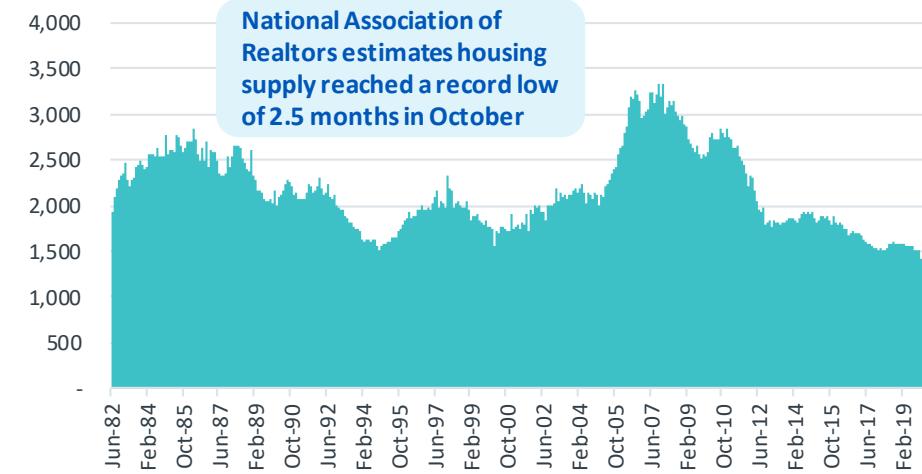
Purchase Mortgage Originations (\$ billions)



12-Month Change in Home Prices



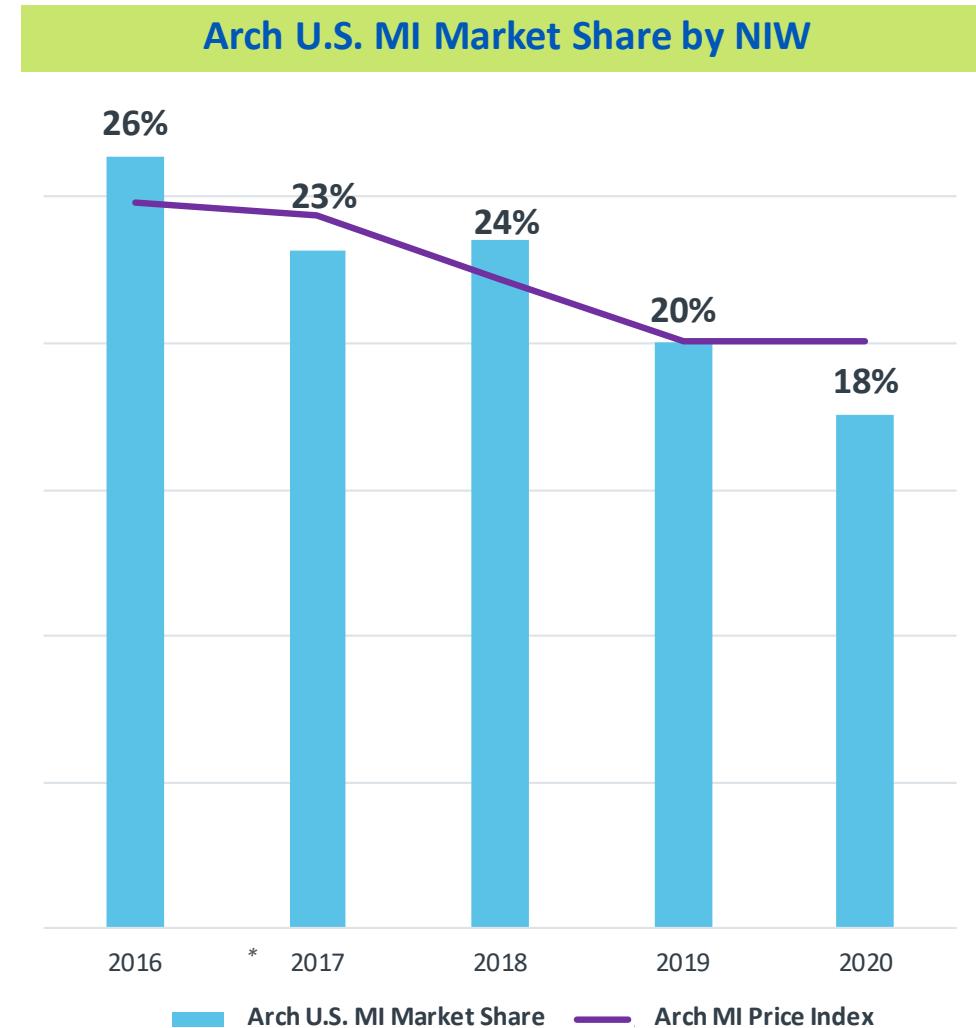
Single Family Homes for Sale (000s)



Sources: Company Reports, FHFA, MBA, Bureau of Labor Statistics, and National Association of Realtors. *2020 is 12 months ended 9/30/20.

Effective Cycle Management

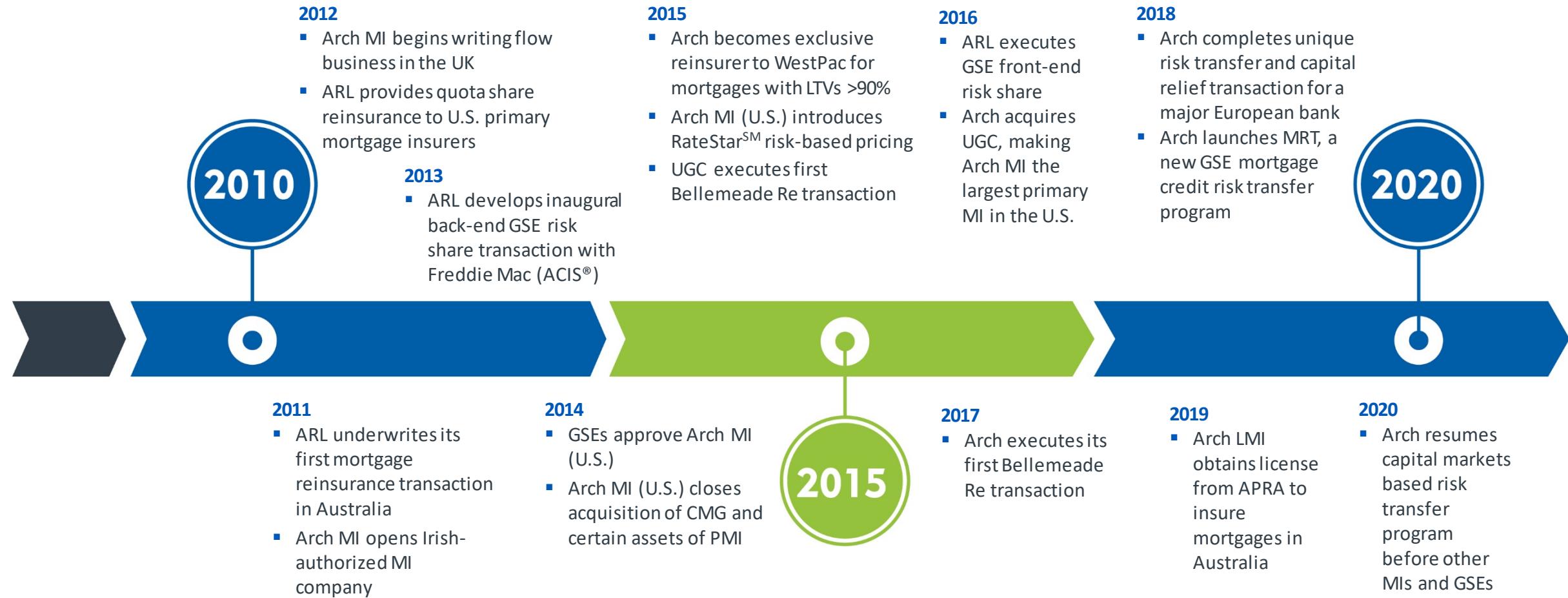
- Risk based pricing enables real time and more frequent changes in risk assumptions
 - Price and margin expectations
 - Credit and LTV risks
 - Geographic – regional risks
- Risk based capital requirements incentivize responsible competition
- Mortgage insurance linked notes reinsurance tail risk and enable portfolio management over time
- Multi-line corporate structure means that each segment annually competes for capital



Sources: Company Reports, SEC filings. 2016 marketshare is pro-forma for the UGC acquisition

Strong Track Record of Innovation and Execution

Arch is the demonstrated thought leader in the Mortgage Insurance space





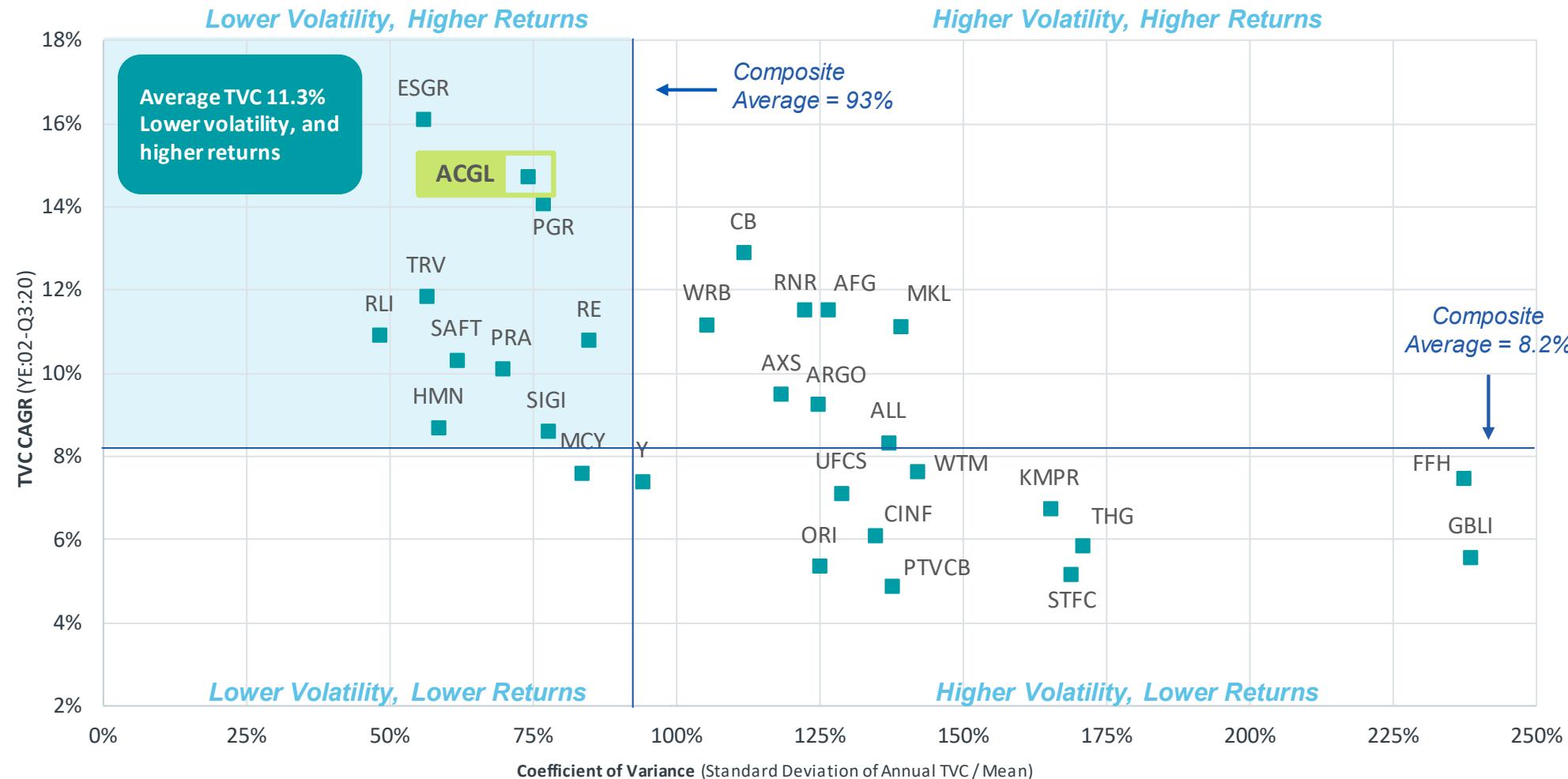
Value Across Any Horizon

François Morin
Chief Financial Officer
Arch Capital Group Ltd.

Higher, More Consistent, Historical Returns

Total Value Creation vs. Coefficient of Variation – Total Composite

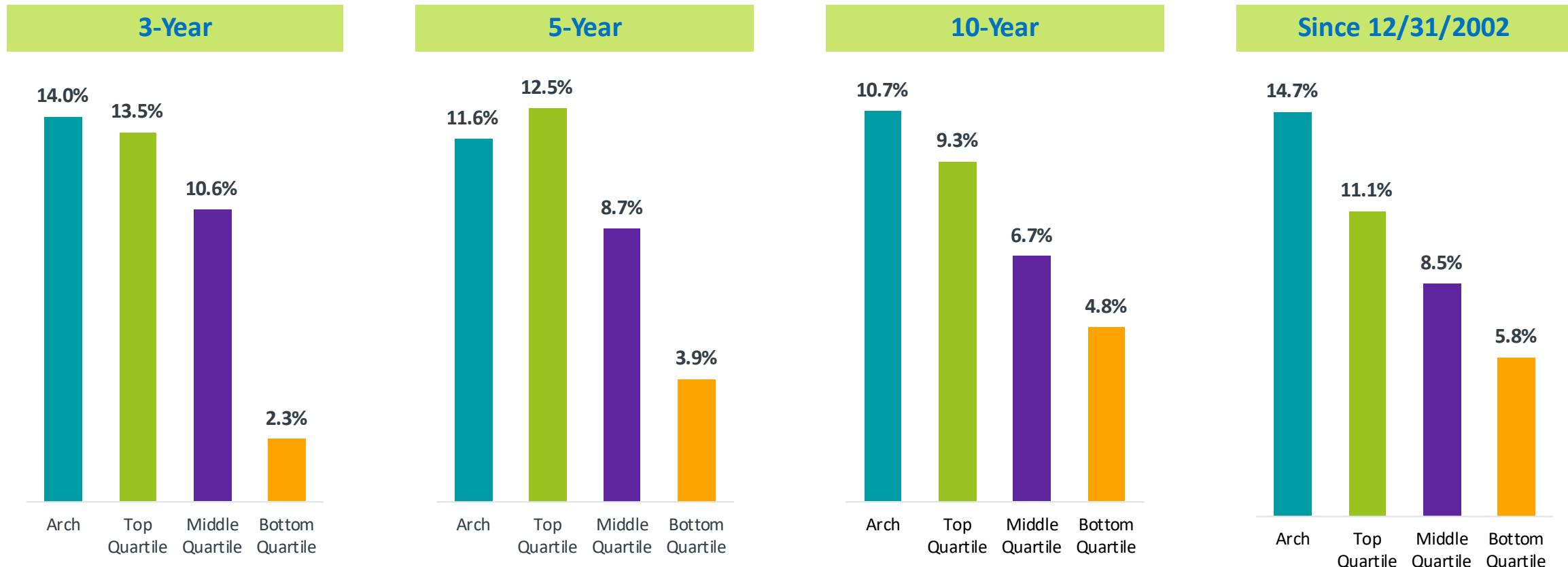
12/31/2002 – 9/30/2020



Excludes CNA (3.3%, 361%), Hartford (2.9%, 363%), MGIC (-3.9%, 583%) and Radian (-1.5%, 637%) as coefficient of variation exceeds 250%; **Source:** D&P Analysis

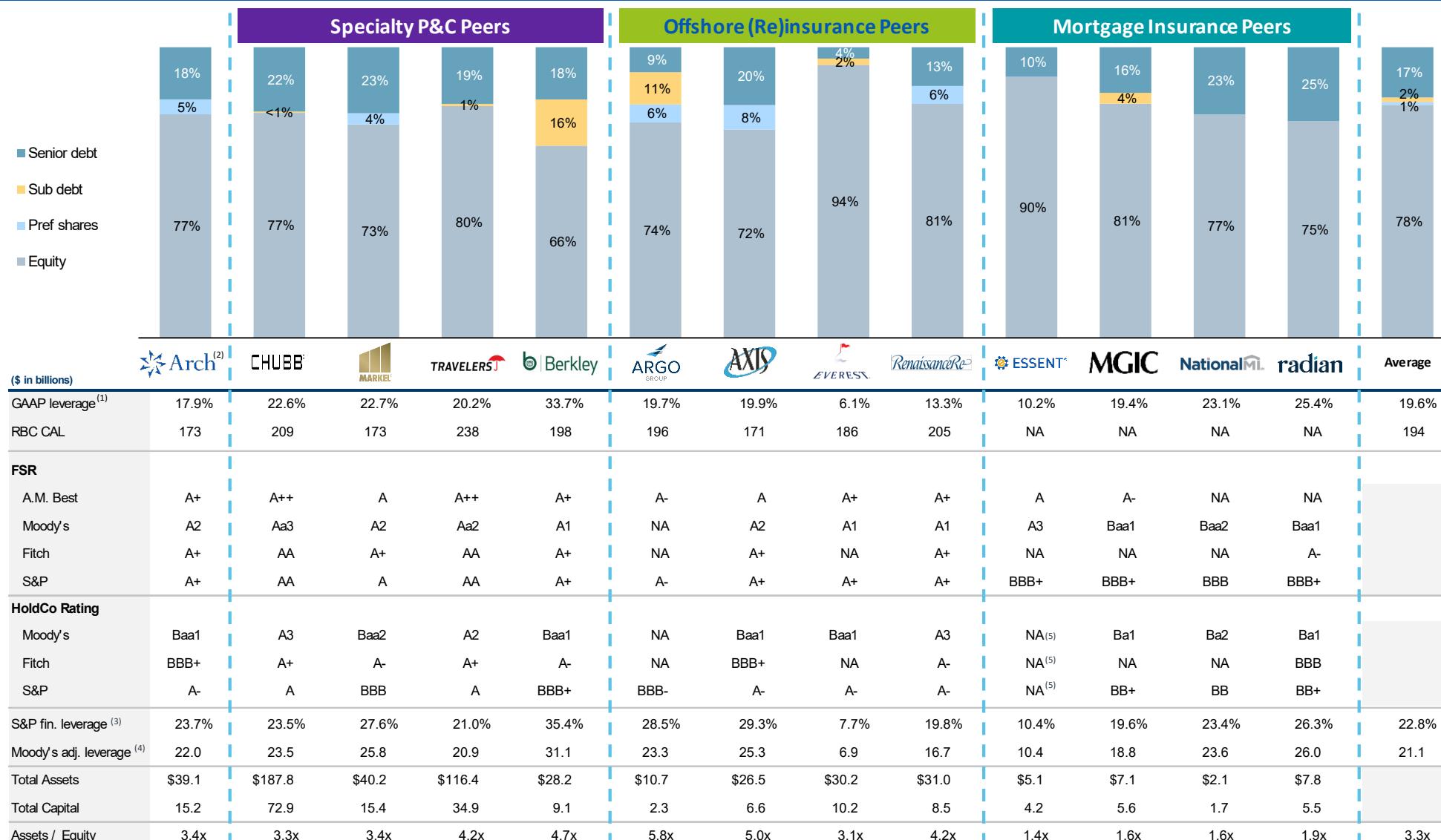
We Remain Committed to Superior Total Value Creation

Top Quartile Performance Creates Value



Source: D&P Analysis, Peers include AFG, ALL, ARGO, AXS, CB, CINF, CNA, ESGR, FFH, GBLI, HIG, HMN, KMPR, MCY, MKL, MTG, ORI, PGR, PRA, PTCB, RDN, RE, RLI, RNR, SAFT, SIGI, STFC, THG, TRV, UFCS, WRB, WTM, Y.
Chart represents **Total Value Creation**, which includes Tangible book value per share growth plus dividends.

Our Capital Structure Provides Financial Flexibility



Note: Financial data as of Q3'20. RBC CAL as of FY19. HoldCo ratings as of latest available.

(1) GAAP leverage includes senior debt and subordinated debt in the numerator.

(2) GAAP leverage ratio and S&P financial leverage ratio excludes Watford, Moody's adjusted leverage ratio includes Watford.

(3) Estimated S&P financial leverage = (Senior + sub debt + preferred equity + capitalized operating lease + underfunded pension obligations) / (Senior + sub debt + preferred equity + capitalized operating lease + underfunded pension obligations + common equity).

(4) Estimated Moody's adjusted leverage = (Senior + 25% sub debt + 50% preferred equity + capitalized operating lease + underfunded pension obligations) / (Senior + sub debt + preferred equity + capitalized operating lease + underfunded pension obligations + common equity + non-controlling interest). Essent senior debt composed of secured revolving credit facility and term loan, and thus there are no HoldCo credit ratings.

Source: Credit Suisse, Company filings, company websites, FactSet, S&P Global.

INVESTOR DAY 2020

Q&A

*Submit your questions in the Q&A box located at the bottom of the screen.
Click “Next Question” to submit.*

Contact

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