Investor Presentation

2021 Fourth Quarter

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.

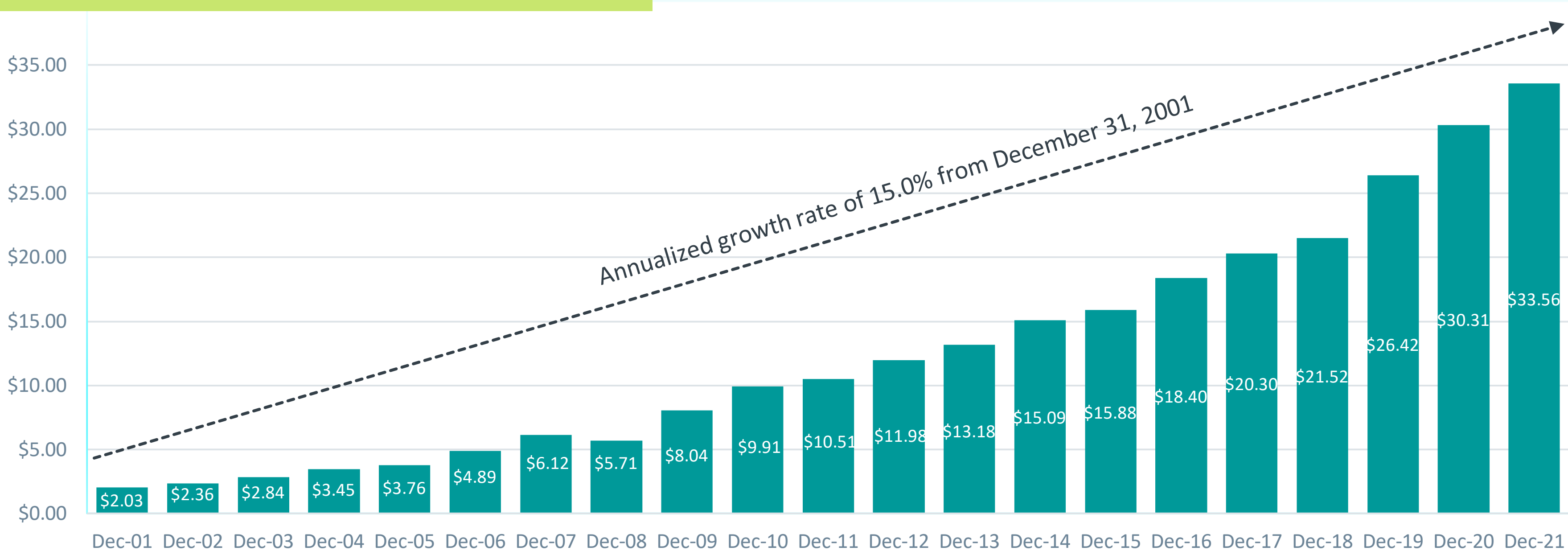
Forward-looking statements, for purposes of the PSLRA or otherwise, can generally be identified by the use of forward-looking terminology such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe” or “continue” and similar statements of a future or forward-looking nature or their 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 nonexclusive 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.archgroup.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.

Growth and Book Value

Book value per common share[1]



	Dec-01	Dec-02	Dec-03	Dec-04	Dec-05	Dec-06	Dec-07	Dec-08	Dec-09	Dec-10	Dec-11	Dec-12	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
Total Capitalization[2] ($B):	$1.0	$1.4	$1.9	$2.5	$2.8	$3.9	$4.3	$3.8	$4.7	$4.9	$5.0	$5.6	$6.5	$7.0	$7.1	$10.5	$11.3	$11.2	$13.2	$15.8	$16.3
Debt/Preferred to Total Capitalization[2]	0.0%	0.0%	10.5%	11.8%	10.8%	16.1%	14.4%	18.9%	15.3%	14.9%	14.5%	13.0%	18.7%	17.3%	17.2%	28.7%	26.4%	22.5%	19.0%	22.1%	21.8%

[1] Excluding the effects of stock options and restricted stock units outstanding

[2] Available to Arch, including senior debt, preferred equity, common stock and AOCI.

Creating Shareholder Value Throughout The Cycle

Arch

Generate Superior Risk Adjusted Returns

- Thorough risk assessment of underlying exposures
- Align executive compensation with long term performance
- Efficient capital management

Focus on Underwriting

- Talent intensive, not people intensive
- Specialty lines platforms
- Active cycle management

Conservative Balance Sheet

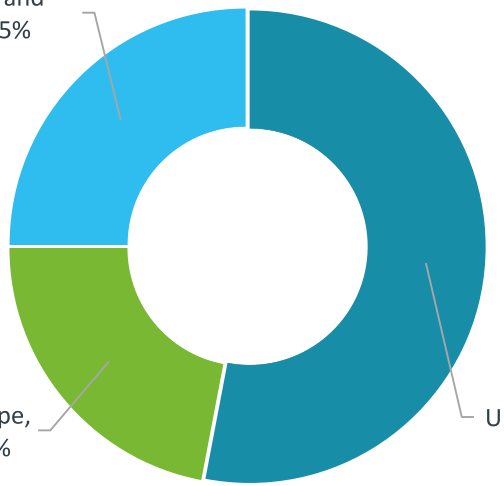
- Minimize investment risk
- Cautious reserving philosophy
- Low financial leverage and strong liquidity

Specialty (Re)insurance Strategy

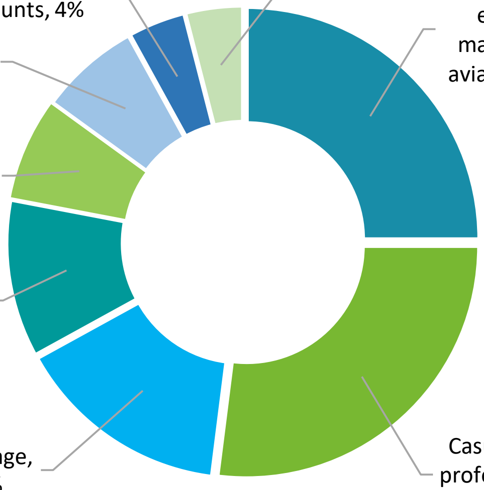
Arch operates leading Specialty P&C and Mortgage Insurance businesses across a wide range of geographies and products providing meaningful diversification and earnings stability.

FY 2021			
Gross premiums written ($12.5B)	47% insurance	41% reinsurance	12% mortgage
Net premiums written ($8.7B)	48% insurance	37% reinsurance	15% mortgage

Underwriting Location[1]



Line of Business[1]

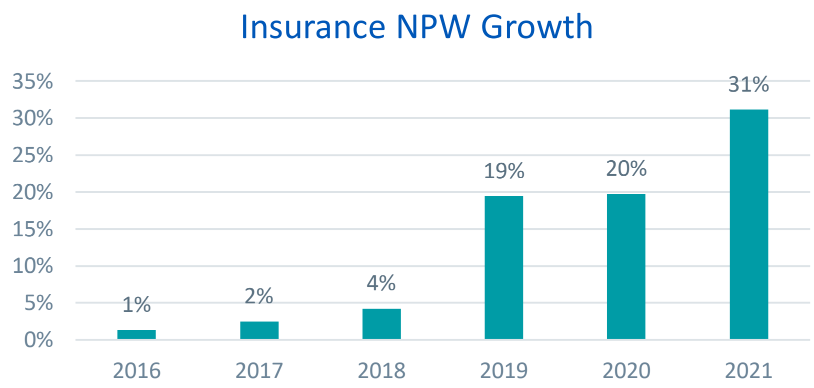


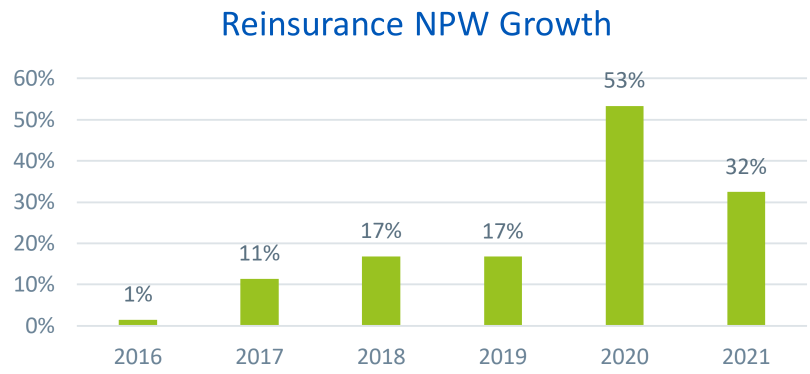
[1] Based on net premiums written, excluding amounts attributable to the 'other' segment (Somers).
[2] Includes casualty, professional liability, executive assurance, healthcare, contract binding and excess motor.
[3] Includes insurance for lenders products, alternative markets and other insurance and reinsurance.
[4] Includes reinsurance for proportional motor, trade credit, surety, workers' compensation catastrophe and other.

Property Casualty Segments

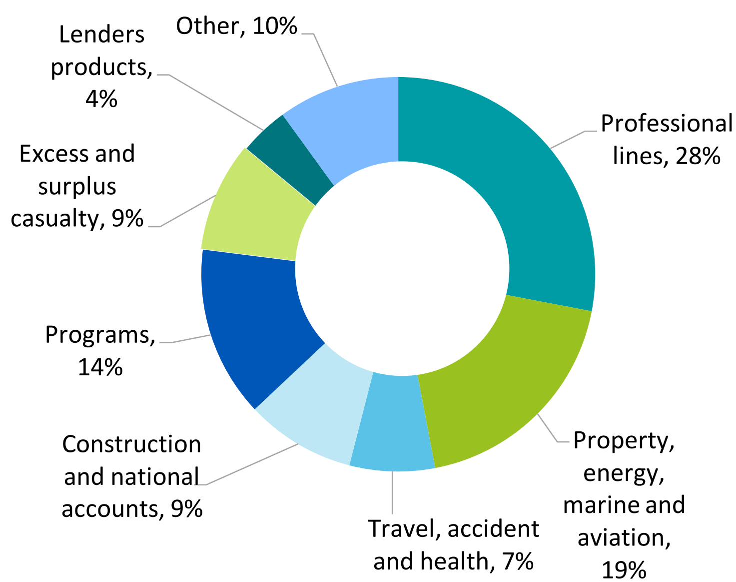
Improving underwriting conditions leading to growth

Calendar Year Net Premiums Written Growth (y/y change)

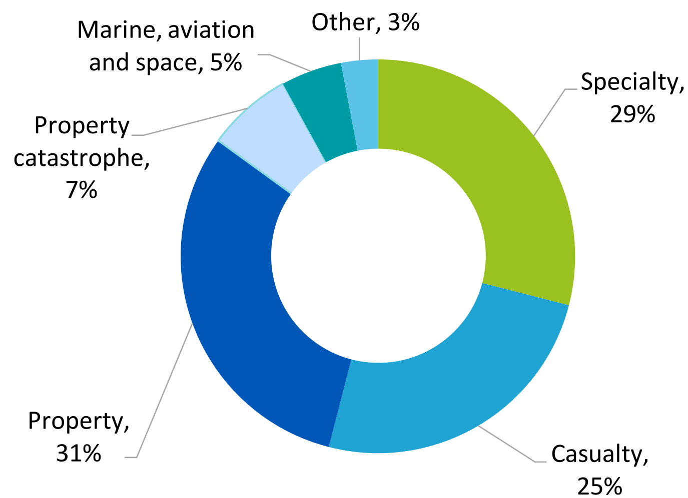




Insurance Net Premiums Written $4.1B

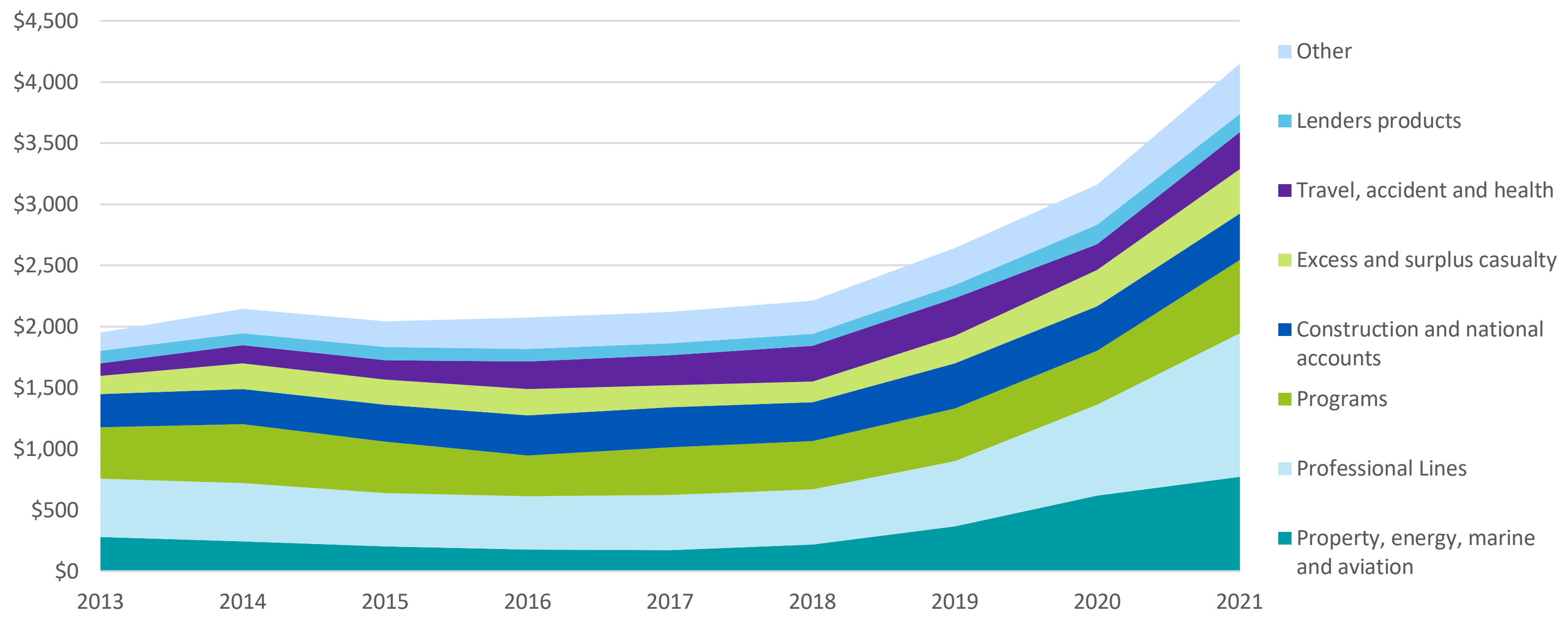


Reinsurance Net Premiums Written $3.3B



Specialty Insurance – Building on Market Opportunities

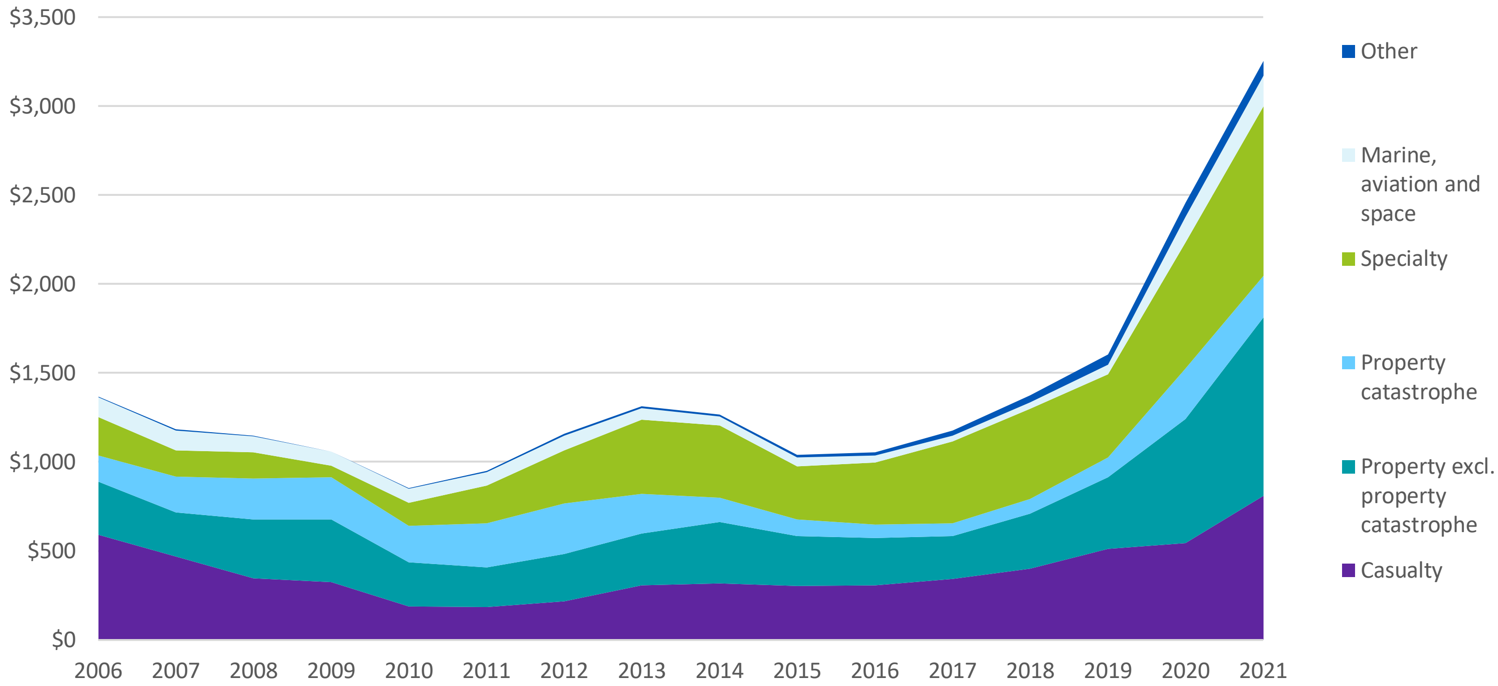
Calendar Year Net Premiums Written by Line ($M)



***Insurance Segment*: Professional Lines** includes professional liability, executive assurance and healthcare business. **Excess and surplus casualty** includes casualty and contract binding business. **Other** includes alternative markets, excess workers' compensation and surety business.

Reinsurance – Flexing into a Hard Market

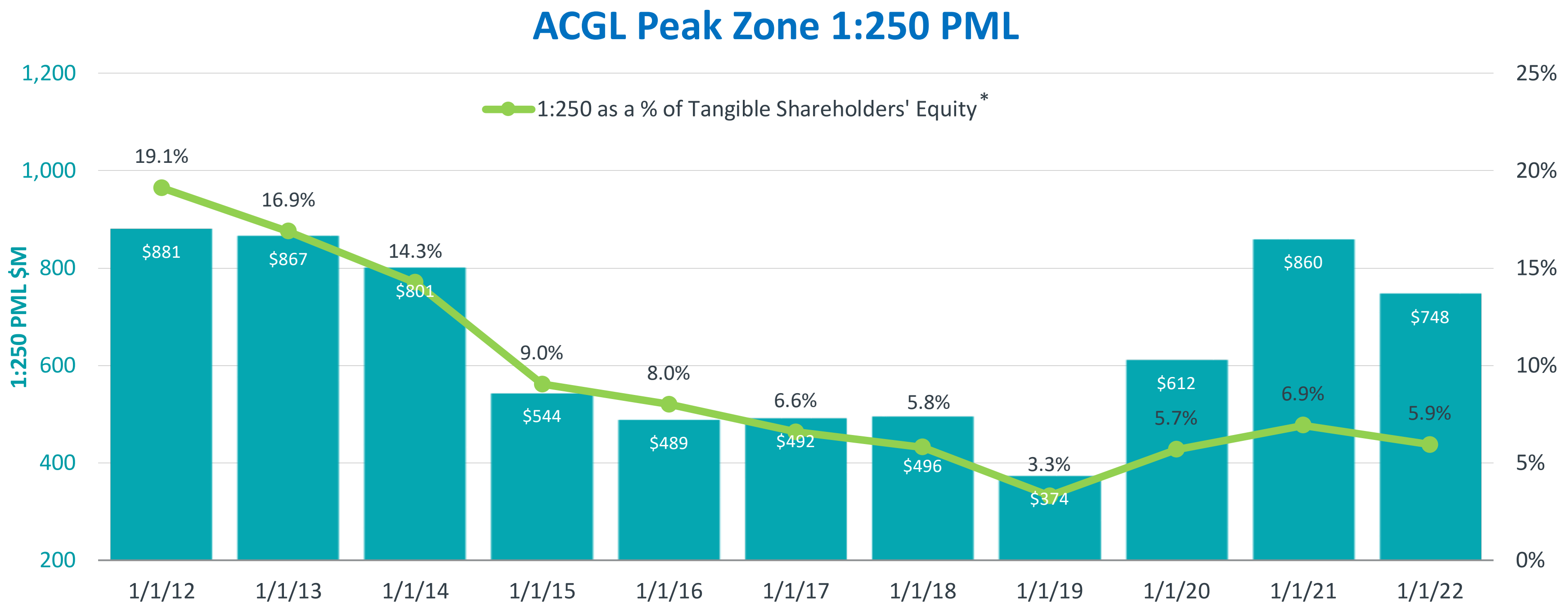
Calendar Year Net Premiums Written by Line ($M)



***Reinsurance Segment*: Casualty** includes executive assurance, professional liability, workers' compensation, healthcare, Motor XOL 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.

Catastrophe Risk – 1:250 Year Peak Zone

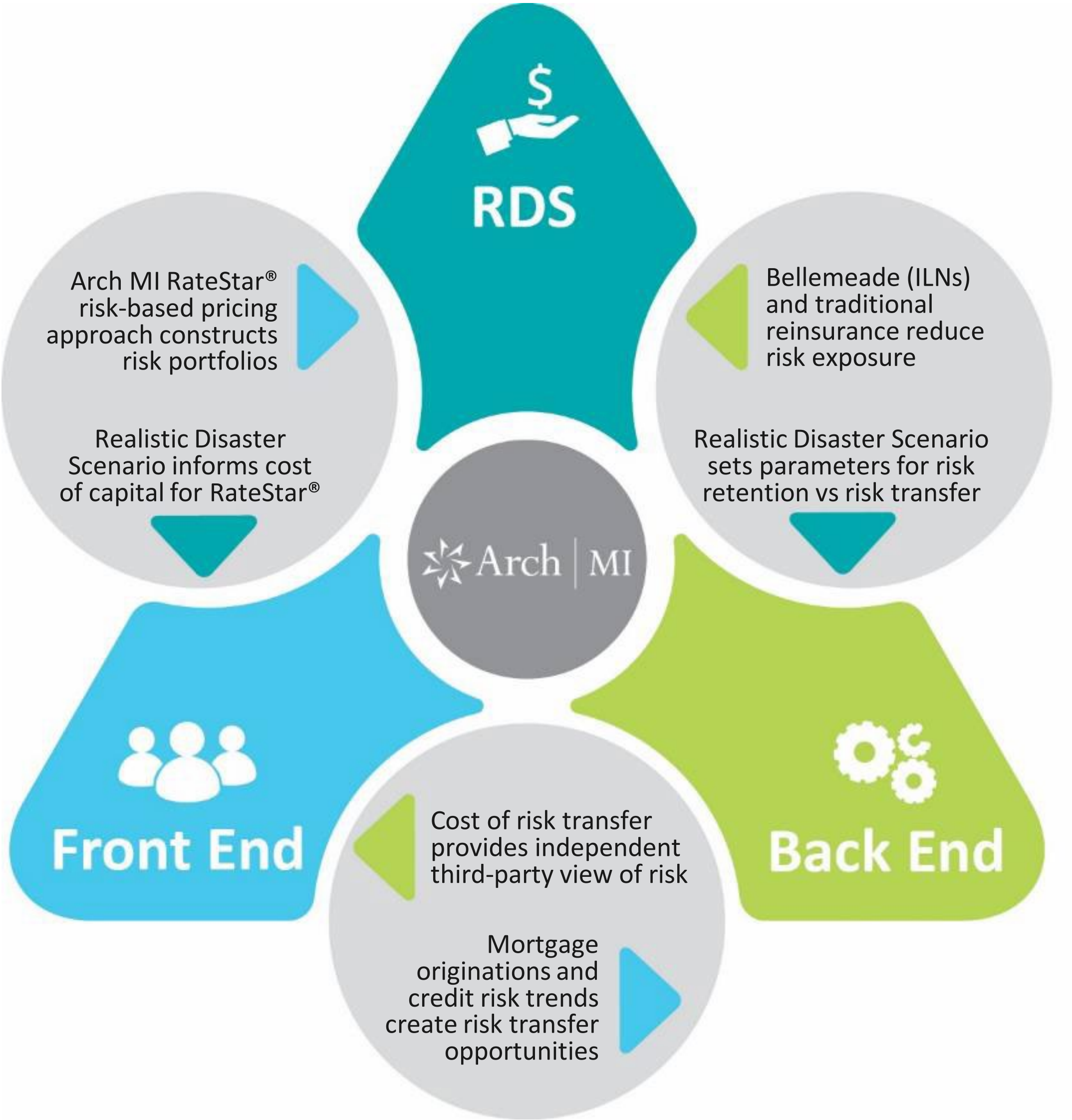
ACGL Peak Zone 1:250 PML



* Total shareholders' equity available to Arch less Goodwill and intangible assets.

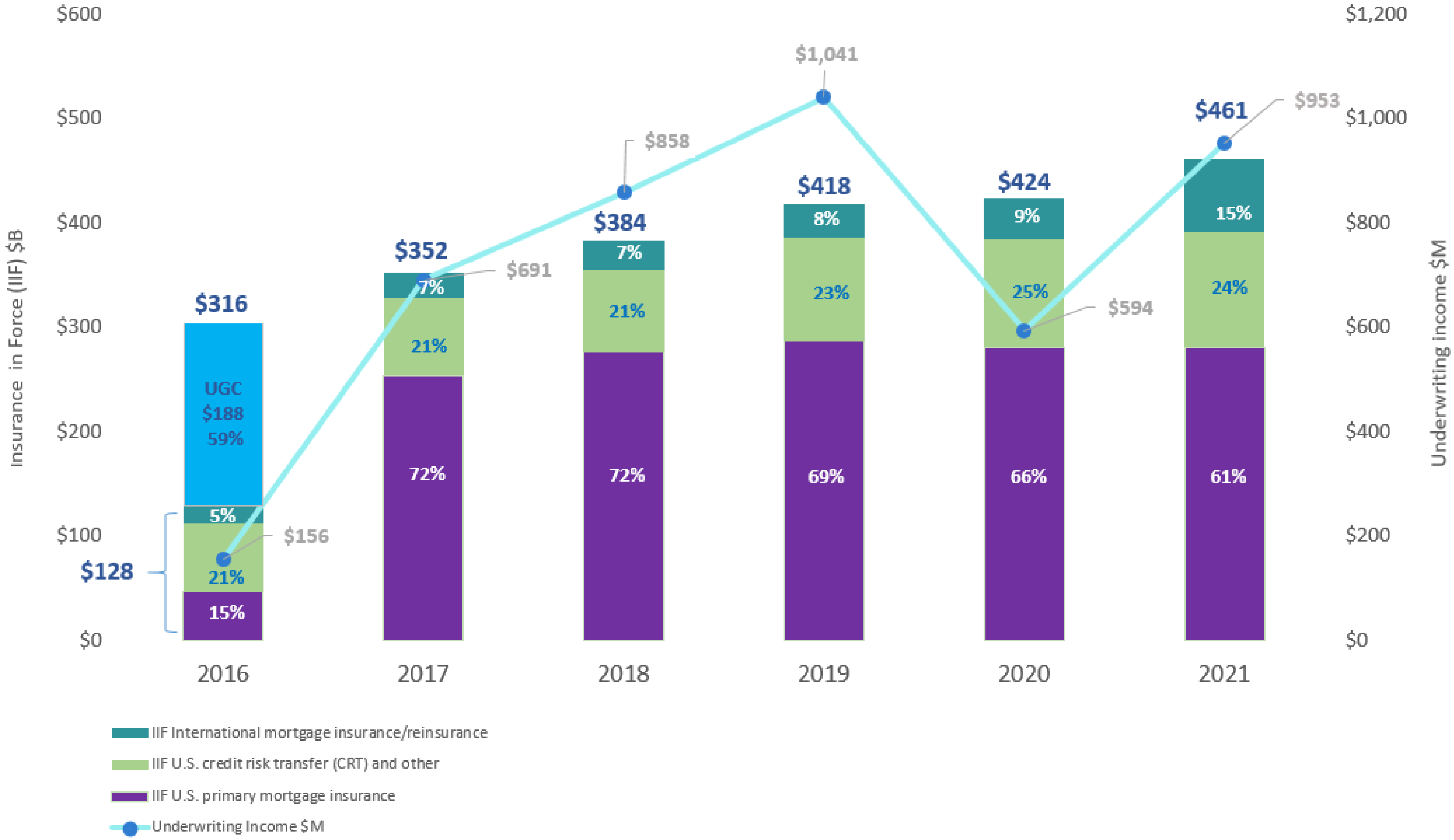
Differentiated Business Model

- Arch aggregates risk from diversified sources and then utilizes a variety of tools for managing mortgage and credit risk.
- Arch seeks to limit risk exposure from a severe economic event (RDS) to protect capital.
- Mortgage Segment is positioned for consistent, attractive returns throughout the cycle.



Mortgage Segment

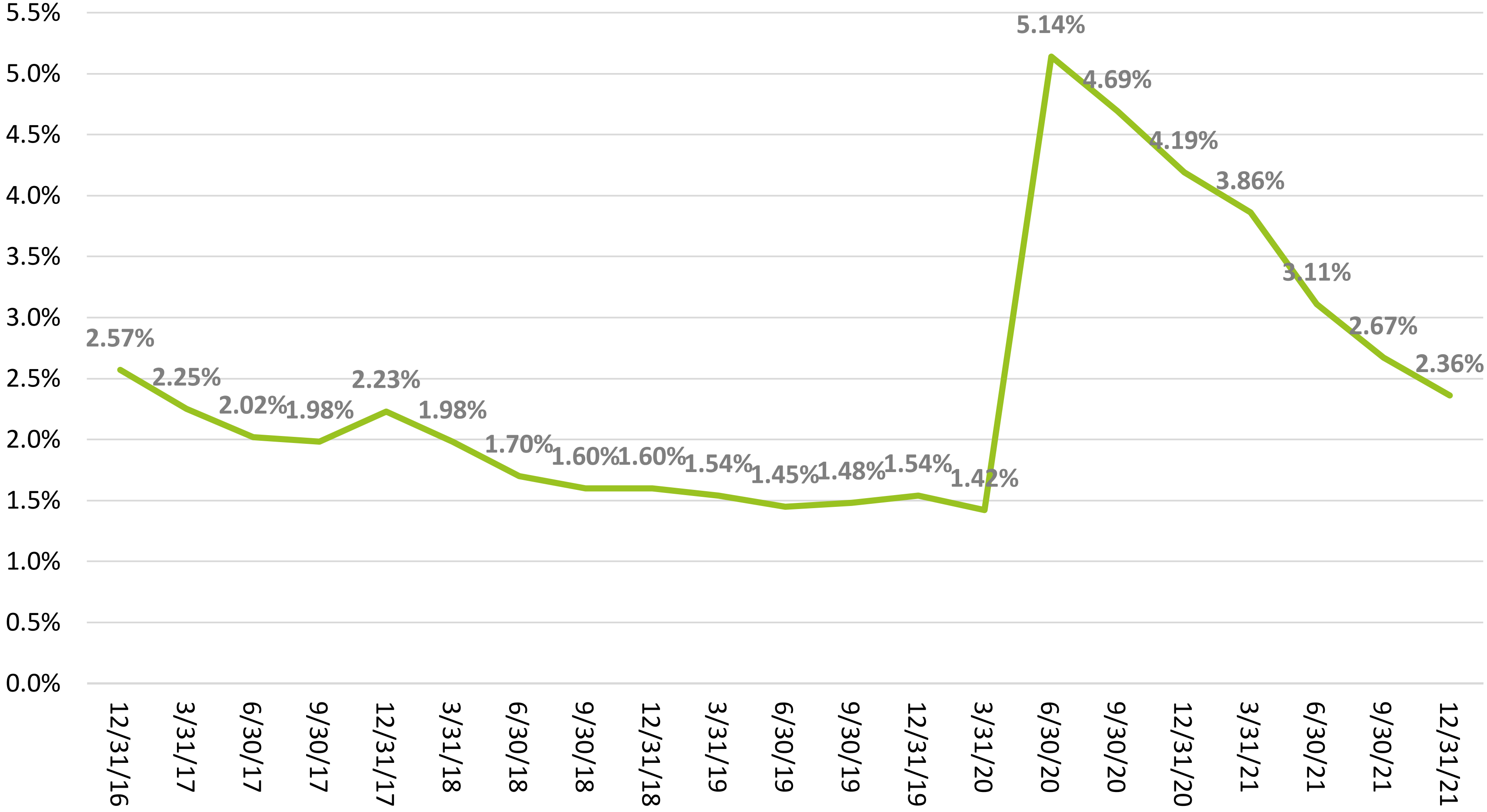
Insurance In Force (IIF) and Underwriting Income



Pandemic Led Rise In U.S. Delinquency Rate Is Declining

Arch

Arch MI US Delinquency Rate



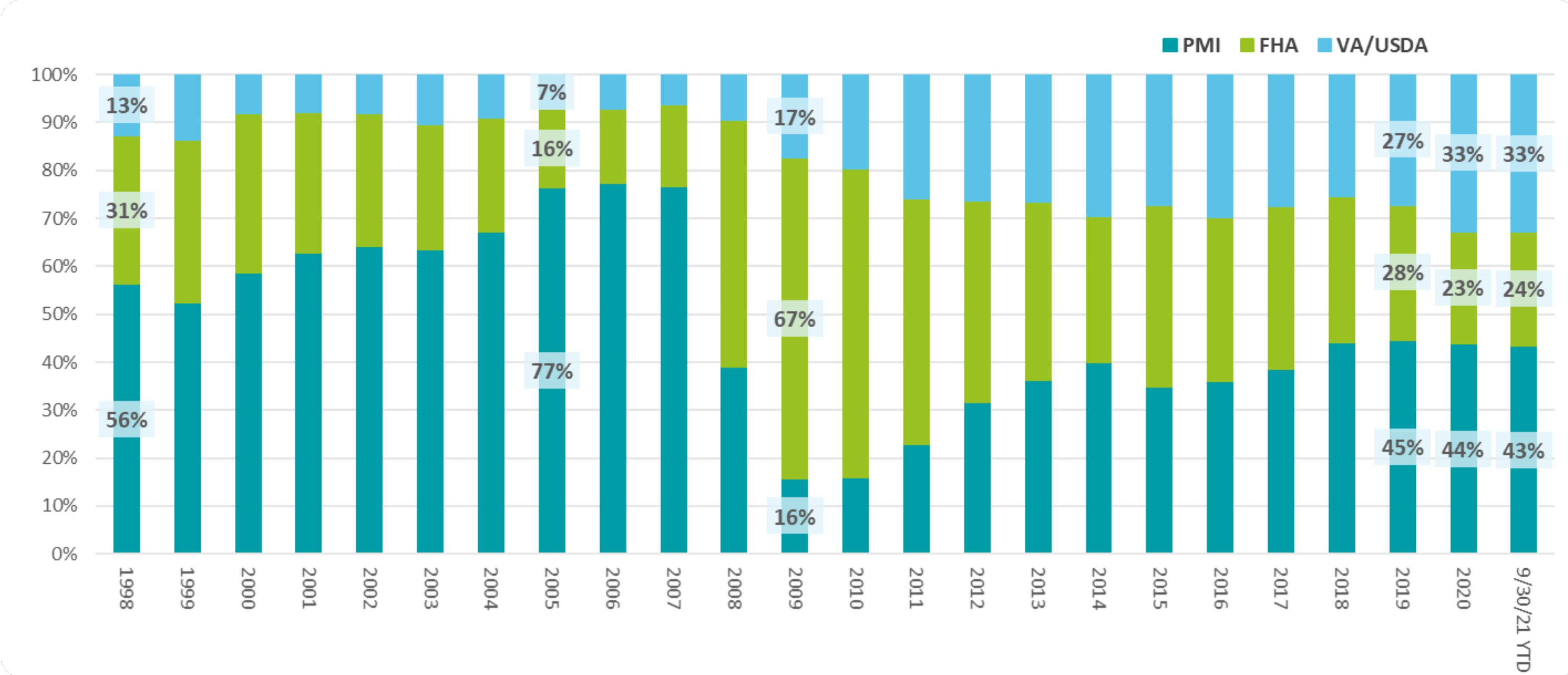
As of 12/31/2021, PMIERs sufficiency ratio: 197% – Calculated as available assets divided by required assets as defined within PMIERs; $1.9 billion of excess available assets.

Private Mortgage Insurance vs FHA/VA Origination

Arch

PMIs' share of insured originations has increased since the Great Recession, but recently declined slightly due to heavy refi activity.

Market Shares of Insured Originations



Source: Inside Mortgage Finance

As of December 31, 2021 ($ in millions)

Vintage	Gross RIF	Est. RIF Ceded to QS	RIF net of QS (1)	Est. Bellemeade Coverage as % of RIF net of QS	Bellemeade Reference Pool
2011 and prior	$2,510	$ -	$2,510	78.0%	$1,957
2012	451	-	451	22.2%	100
2013	1,148	-	1,148	3.6%	41
2014	1,328	604	724	0.9%	7
2015	2,340	980	1,360	0.7%	10
2016	3,841	991	2,850	97.3%	2,774
2017	3,436	42	3,394	98.6%	3,346
2018	3,562	43	3,519	98.8%	3,475
2019	6,467	69	6,397	93.6%	5,989
2020	20,341	811	19,531	100.0%	19,531
2021 (2)	25,195	4,793	20,403	55.4%	11,311
Total *	**$70,619**	**$8,333**	**$62,286**	**77.9%**	**$48,541**

* Numbers may not foot due to rounding.

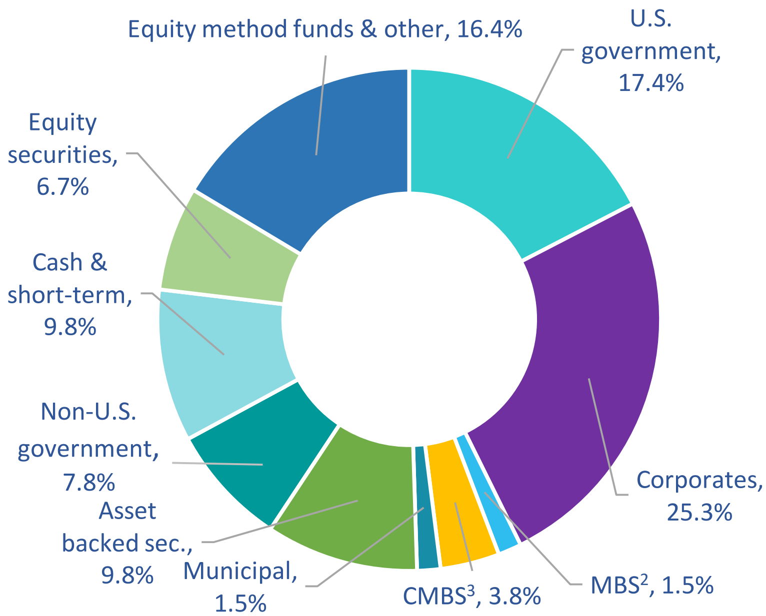
(1) RIF net of QS and excess of loss reinsurance is $54,574.

(2) Does not include the Bellemeade 2022-1 Ltd. agreement which closed in January 2022, and added $6.3 billion of reference pool RIF. This additional agreement would raise the 2021 vintage coverage to approximately 86.5%, and overall coverage across all vintage years to approximately 88.1%.

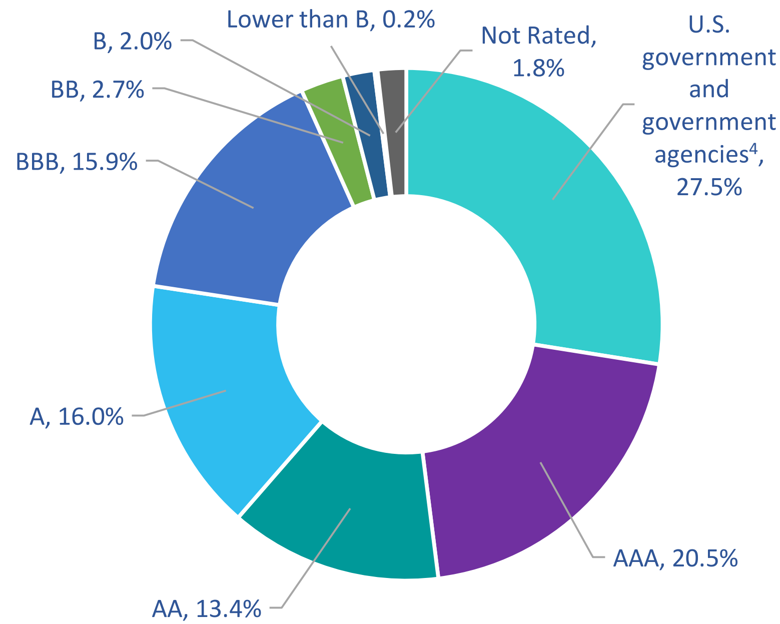
Our Investment Strategy

- Arch manages the portfolio conservatively to protect our reserves on an economic basis and ensure our ongoing ability to pay claims.
- Arch's investment approach is to improve the Company's Return on Equity while avoiding undue risk. We do this by focusing on total return with thoughtful target allocation and periodic rebalancing.

Invested Assets - $27.4B[1]



Fixed Maturity by Rating - $18.4B[1]



[1] Excluding amounts attributable to the 'other' segment (Somers).
[2] MBS = Mortgage backed securities.
[3] CMBS = Commercial mortgage backed securities.
[4] Includes U.S. government – sponsored agency MBS and agency CMBS.

Our ESG Impact Areas and Material ESG Topics

We focus our ESG efforts around integrating sustainability-driven thinking and decision-making into **five core impact areas** of our company. By organizing our strategy around these areas, we seek to encompass Arch's collaborative ESG successes and sustainability progress across our operations in our annual reporting to shareholders, rating agencies and the public.

1 Our People

We are committed to investing in the success of our employees as individuals and professionals to create long-term sustainable growth as an organization.

- Benefits & Employee Wellbeing
- Diversity & Inclusion
- Career Development

2 Our Operations

By actively managing ESG risks and embedding compliance, transparency, data protection and resiliency across all areas of our operations, we protect our people and customers who entrust us with their personal information and business.

- ERM
- Ethics & Code of Business Conduct
- Business Continuity
- Privacy & Data
- Responsible Supply Chain
- Operational Sustainability

3 Our Business

As a global (re)insurer, integrating ESG considerations into our underwriting allows us to reduce risk and take advantage of opportunities for the benefit of our customers, shareholders and other stakeholders.

- Underwriting ESG Integration
- Thermal Coal Policy
- Sustainable Insurance Solutions

4 Our Responsible Investing

We believe incorporating material, nonfinancial ESG factors into investment selection and risk management has the potential to enhance long-term investment returns.

- ESG Aware Statement & Approach
- Impact Investments

5 Our Commitment to Communities

Striving to make a difference by investing in our communities is one of Arch's core values, woven into the fabric of our culture.

- Corporate Giving
- Employee Giving & Volunteering

Our ESG Reporting

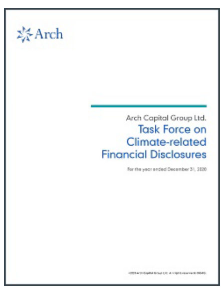
A major element of our ESG strategy is our annual reporting. We believe in the value of transparency around our sustainability initiatives, and we are committed to sharing our progress to relevant stakeholders on an annual basis across the following three reports:

Annual Sustainability Report:

Intended for all stakeholders and the general public. This report describes our comprehensive ESG narrative and strategy. In 2020, this report includes an overview of Arch's response to the COVID-19 pandemic and support of the social justice movement.

Sustainability Accounting Standards Board (SASB) Report:

Intended for investors, SASB has disclosures around the financial impacts of sustainability.



Task Force on Climate-Related Financial Disclosures (TCFD) Report:

Aligned with the framework set forth by the Task Force on Climate-related Financial Disclosures, this report is intended for investors, regulators, and other significant stakeholders.

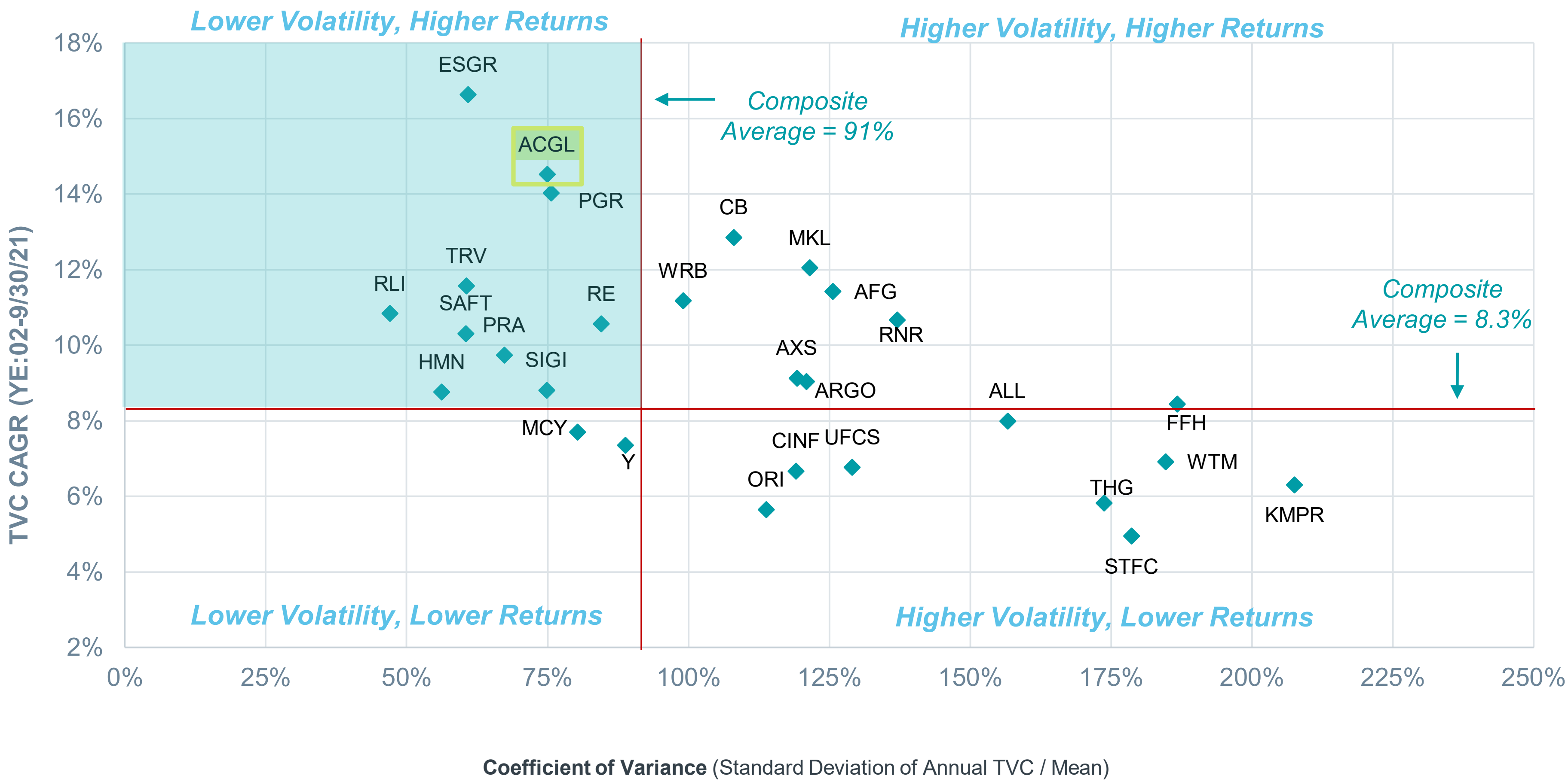
Superior Risk-Adjusted Returns

Arch

Strong track record of generating higher, more consistent risk-adjusted returns

Total Value Creation vs. Coefficient of Variation – Total Composite

12/31/2002 – 09/30/2021



Source: D&P Analysis. Chart represents **Total Value Creation,** which includes Tangible book value per share growth plus dividends.
Note: Excludes CNA (3.5%, 341%), Hartford (3.0%, 361%), MGIC (-3.2%, 553%) and Radian (-0.9%, 589%) as coefficient of variation exceeds 250%.

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