Arch

Investor Presentation

2022 First 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”).

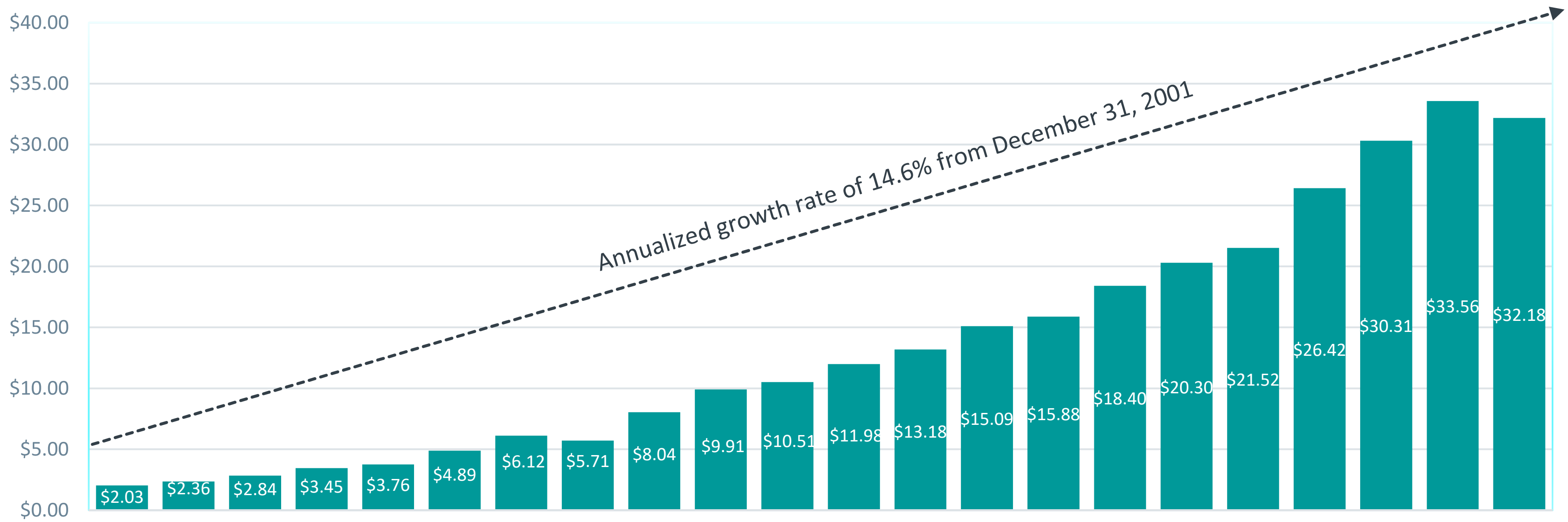
The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with other cautionary statements that are included herein or elsewhere. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly 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

Arch

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	Mar-22
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	$15.6
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%	22.7%

[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

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

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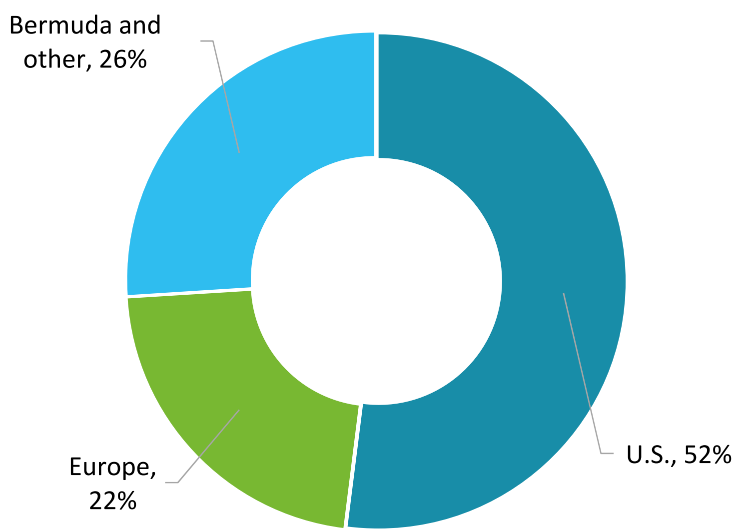
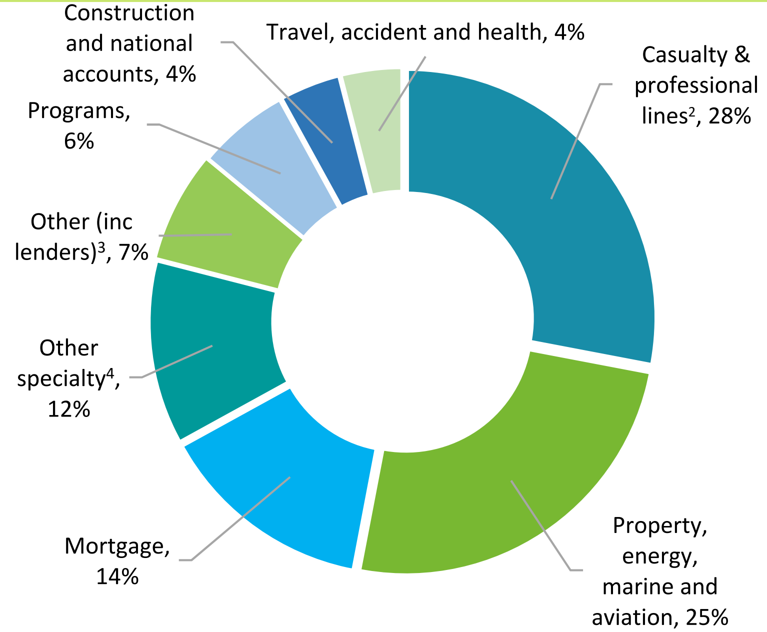
Arch operates leading Specialty P&C and Mortgage Insurance businesses across a wide range of geographies and products providing meaningful diversification and earnings stability.

Trailing Twelve Months Ended March 31, 2022			
Gross premiums written ($13.0B)	48% insurance	41% reinsurance	11% mortgage
Net premiums written ($9.0B)	49% insurance	37% reinsurance	14% mortgage

Underwriting Location[1]



Line of Business[1]

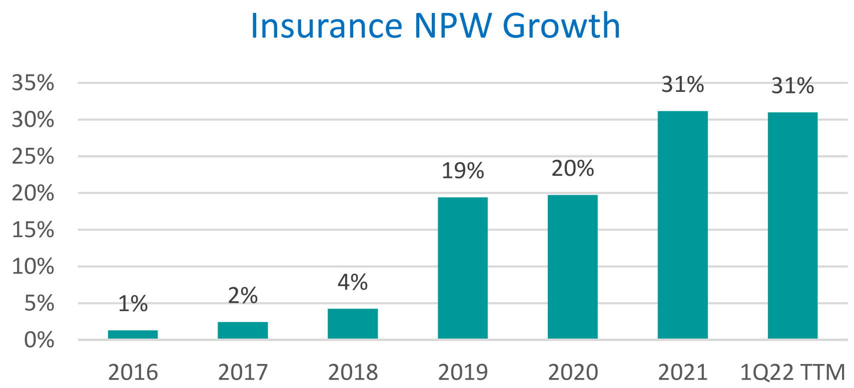


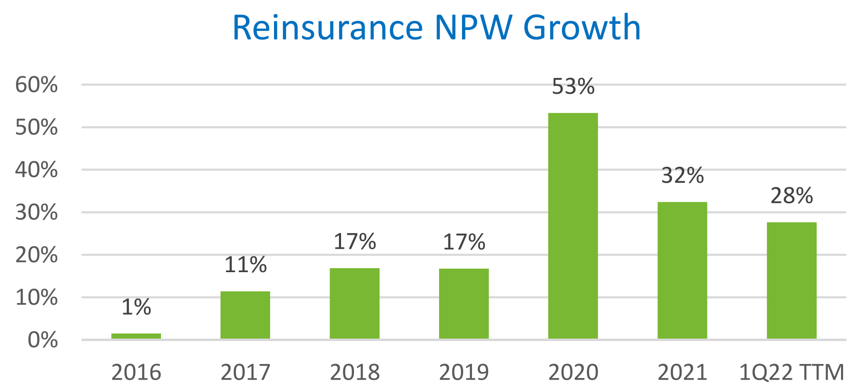
[1] Based on net premiums written, excluding amounts attributable to the 'other' segment (Somers).
[2] Includes casualty, professional liability, executive assurance, healthcare, contract binding and excess motor.
[3] Includes insurance for lenders products, alternative markets and other insurance and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

Property Casualty Segments

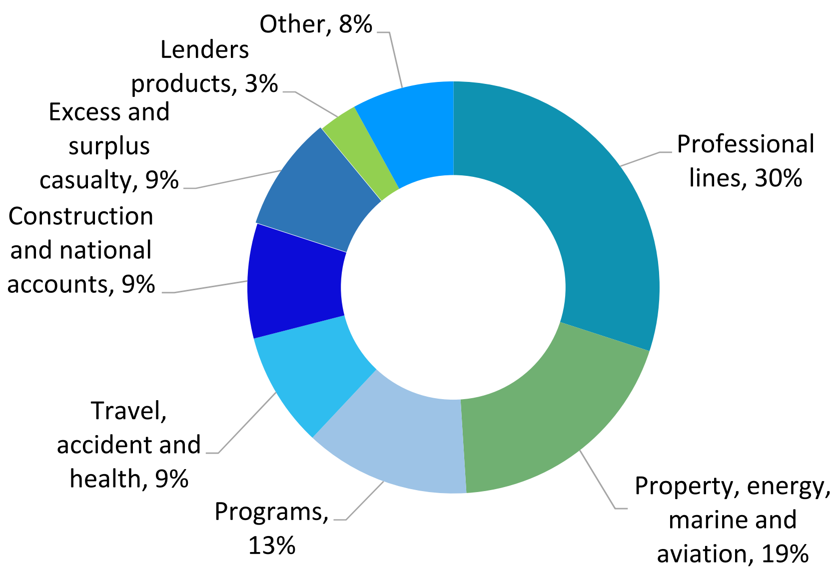
Improving underwriting conditions leading to growth

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

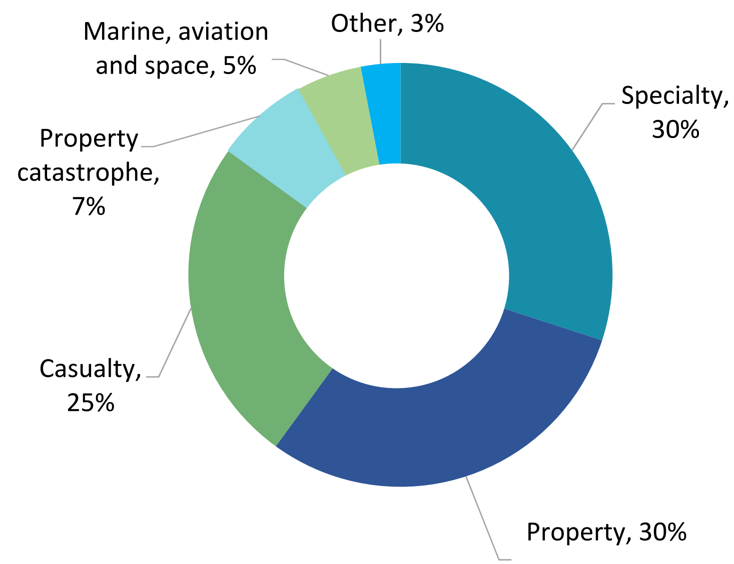




Insurance Net Premiums Written $4.4B*



Reinsurance Net Premiums Written $3.4B*

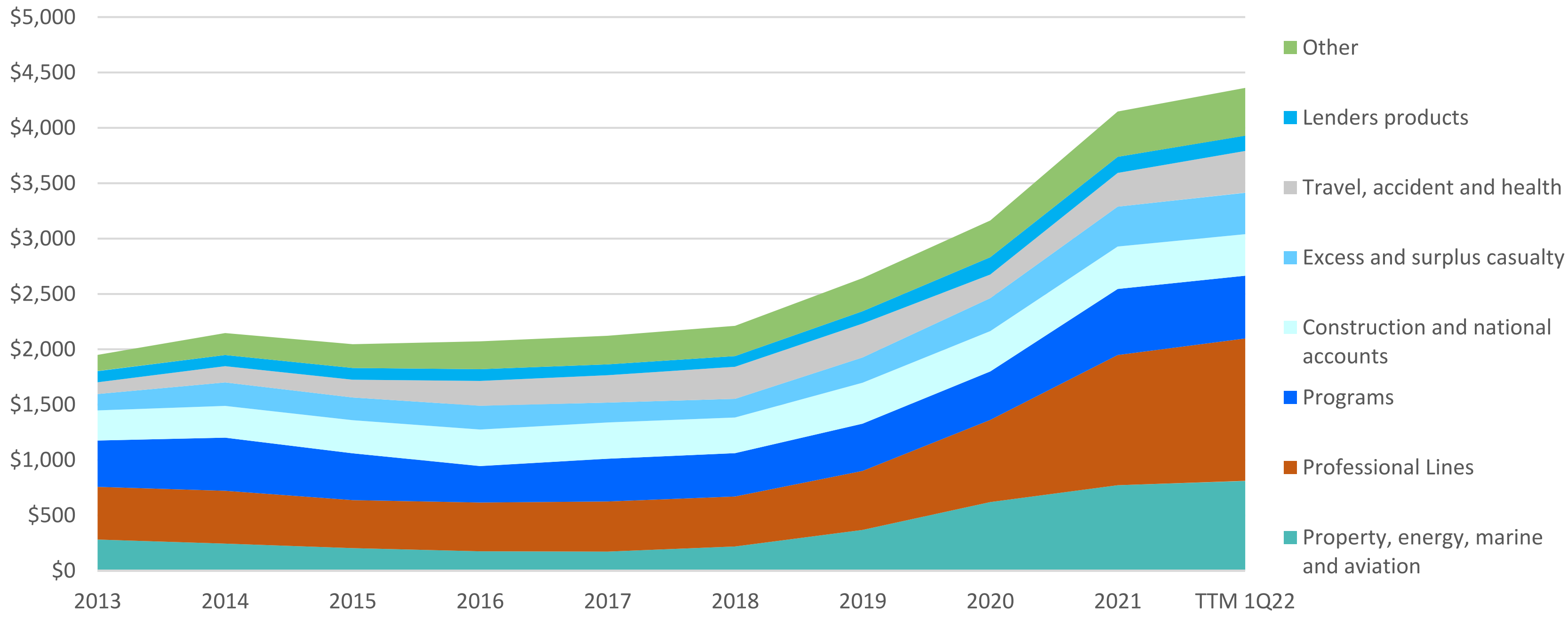


*Trailing twelve months ended March 31, 2022.

Specialty Insurance – Building on Market Opportunities

Arch

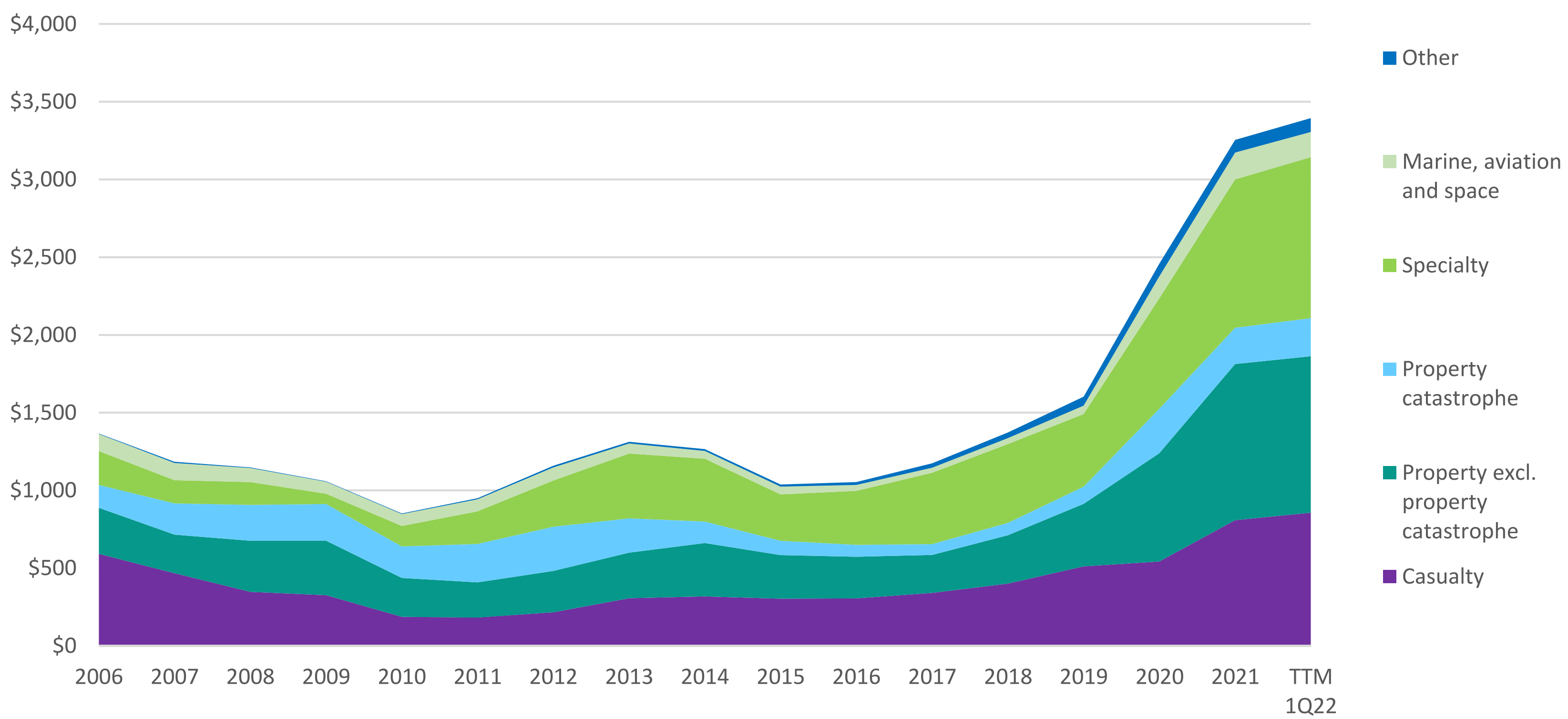
Calendar Year Net Premiums Written by Line ($M)



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

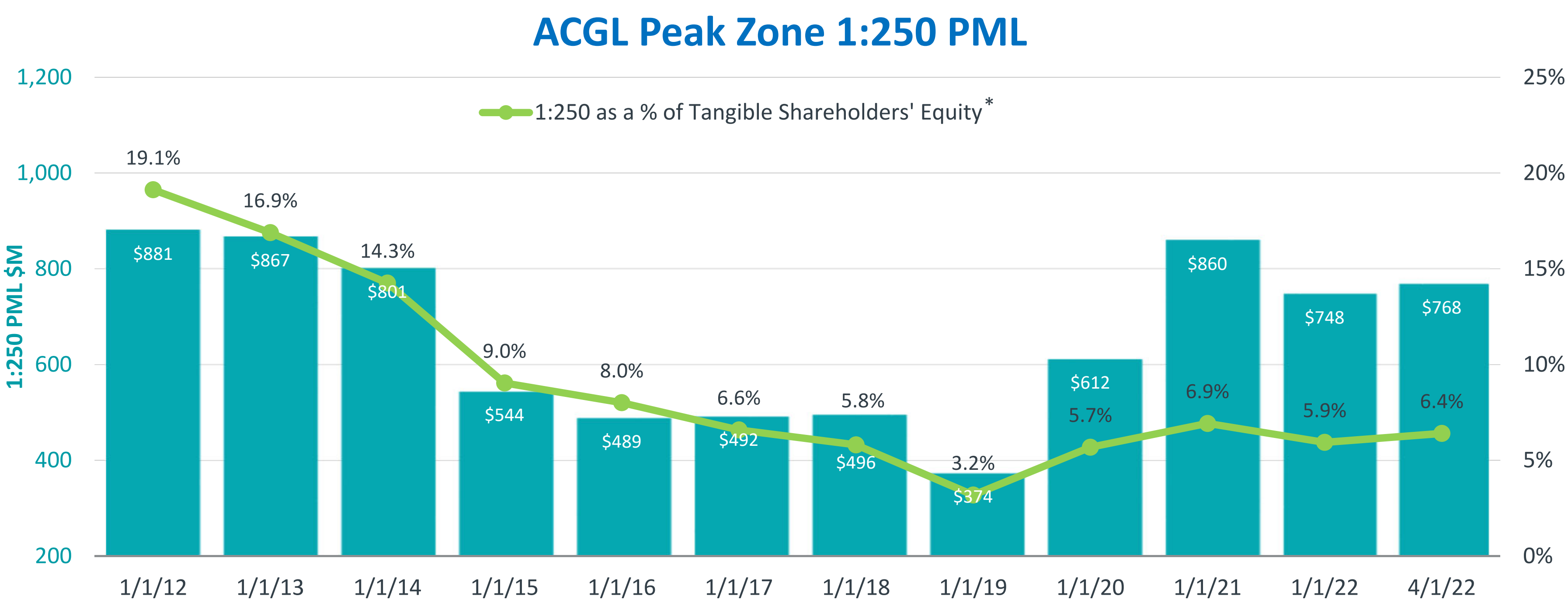
Calendar Year Net Premiums Written by Line ($M)



***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

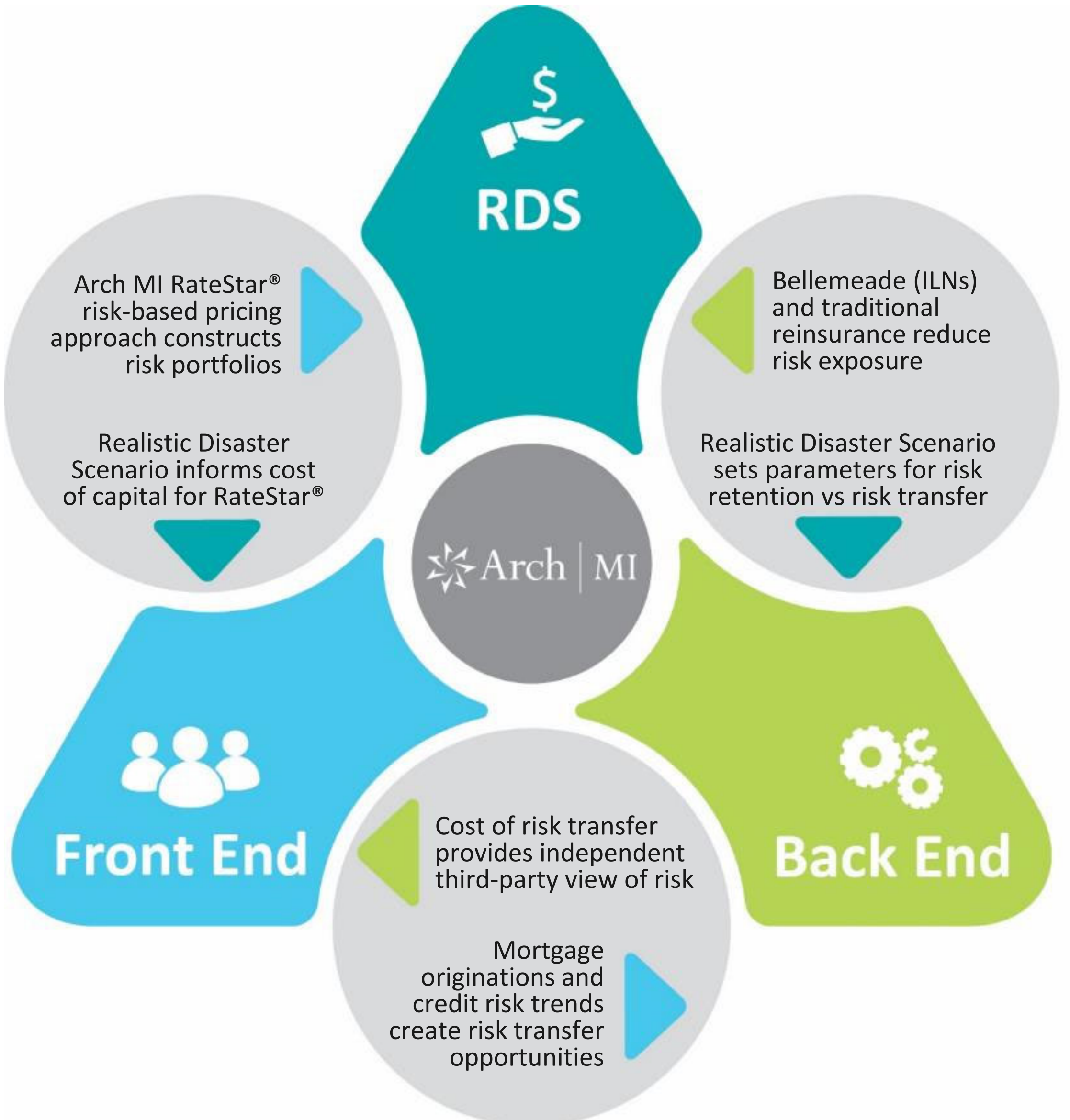
ACGL Peak Zone 1:250 PML



* 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

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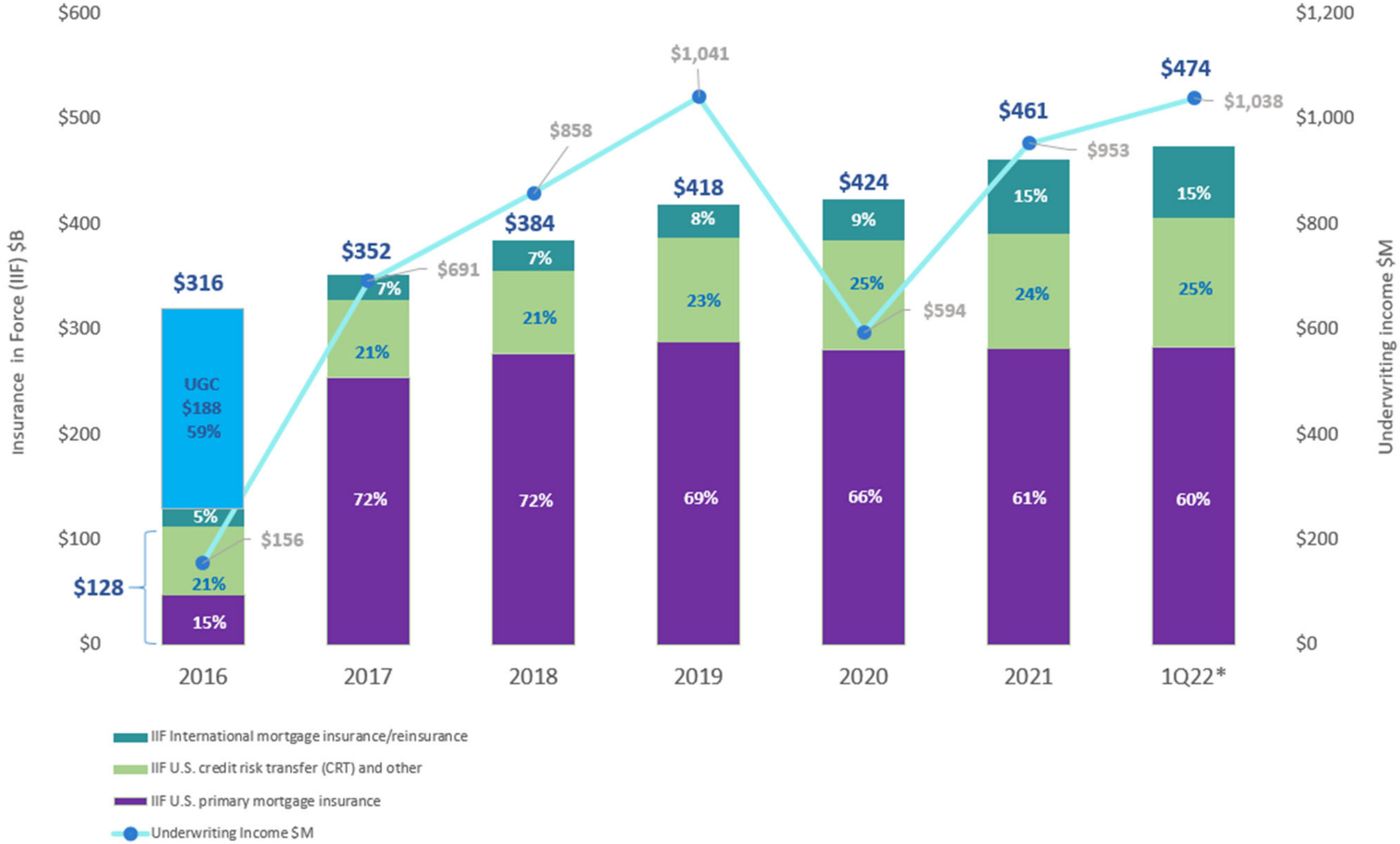
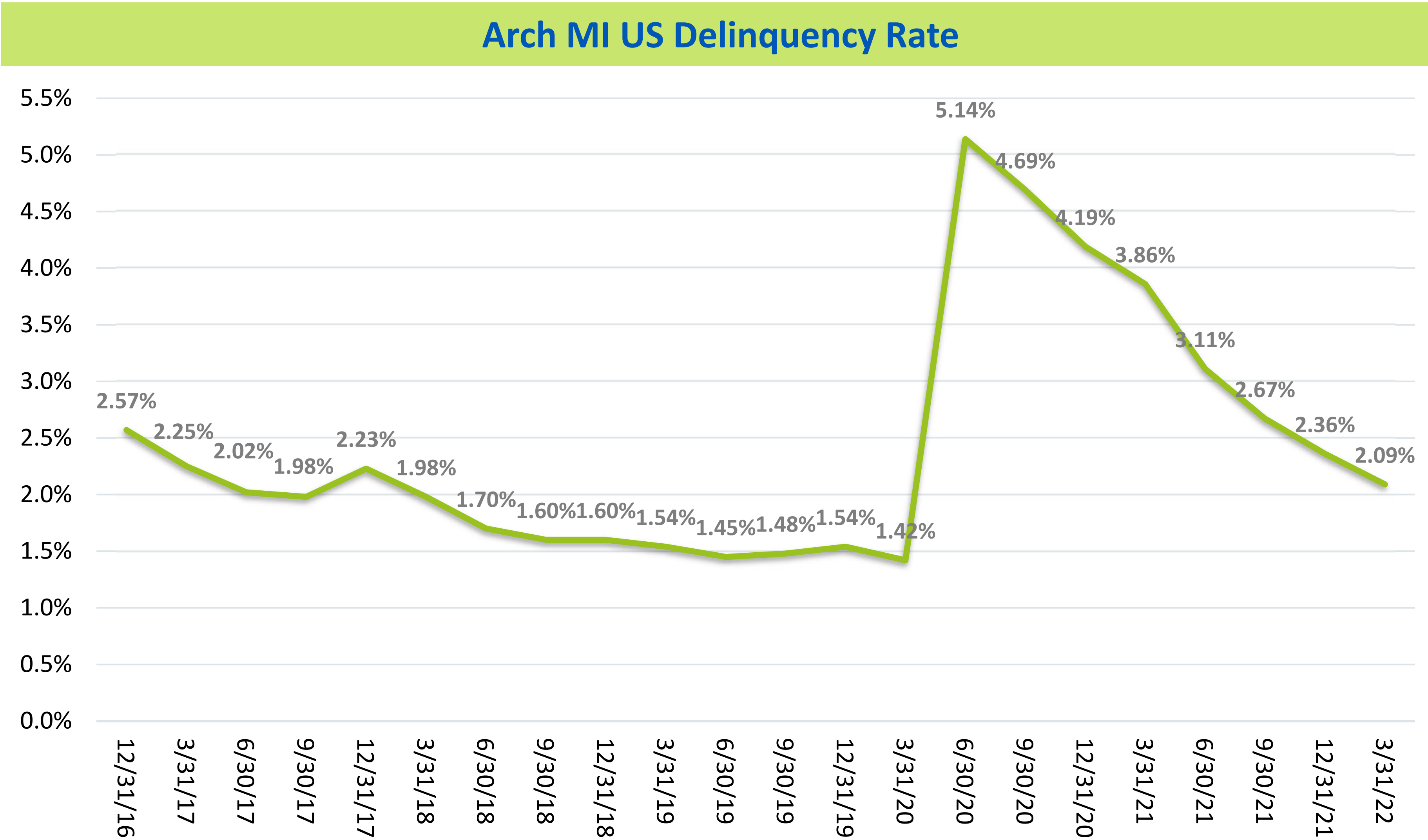
Insurance In Force (IIF) and Underwriting Income



*Underwriting income for 1Q22 is for the trailing 12 months ended March 31, 2022

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

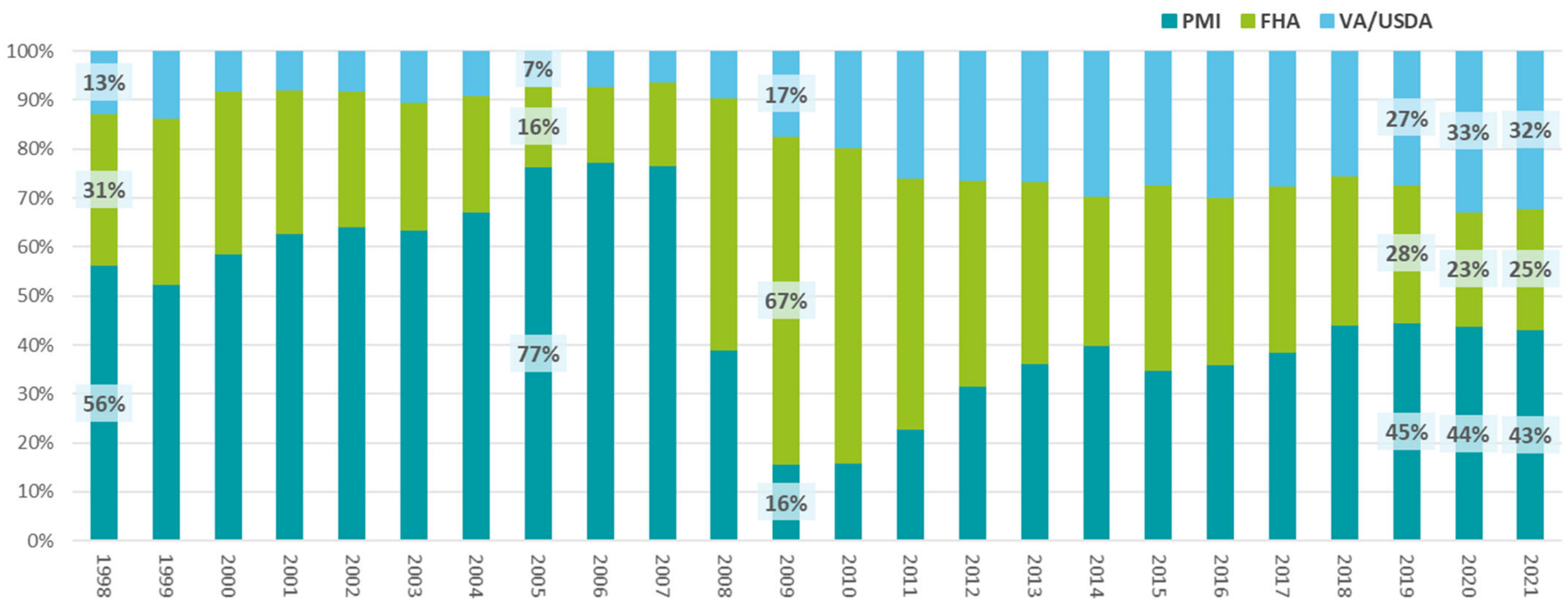


As of 3/31/2022, PMIERs sufficiency ratio: 205% – Calculated as available assets divided by required assets as defined within PMIERs; $1.9 billion of excess available assets.

Private Mortgage Insurance vs FHA/VA Origination

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

Arch MI US – Bellemeade Reinsurance Coverage by Deal

March 31, 2022 ($ in millions)	Bellemeade Re Insurance-Linked Notes Key Metrics [1]*													
	2017-1	2018-1	2018-3	2019-1	2019-2	2019-3	2019-4	2020-2 (8)	2020-3 (8)	2020-4 (8)	2021-1 (8)	2021-2 (8)	2021-3 (8)	2022-1 (8)
Coverage dates for policies issued between (2)	**1/17-6/17**	**7/17-12/17**	**1/18-6/18**	**2005-2008 (3)**	**7/18-12/18**	**2016**	**1/19-6/19**	**1/20-5/20**	**6/20-8/20**	**7/19-12/19**	**9/20-11/20**	**12/20-3/21**	**4/21-6/21**	**7/21-11/21**
Initial risk in force	7,362	7,489	7,970	5,944	8,872	9,284	7,216	7,187	6,951	8,121	8,581	8,105	6,558	6,335
Current risk in force	1,330	1,661	1,447	1,974	1,654	2,513	1,750	4,049	5,033	3,613	7,223	7,236	6,078	6,128
Initial coverage at issuance date (ILN)	368	374	506	342	621	701	577	423	418	321	580	523	508	284
Current coverage (ILN)	81	148	283	157	398	348	352	185	325	146	543	515	508	284
Initial coverage at issuance date (traditional XOL)	-	-	-	-	-	-	-	26	34	16	64	93	131	33
Current coverage (traditional XOL)	-	-	-	-	-	-	-	1	12	7	55	91	131	33
Arch's retention layer	166	169	179	208	222	232	162	252	174	150	172	154	148	158
Claims paid under Arch's retention layer	5	4	4	25	3	2	1	-	-	-	-	-	-	-
Incurred losses under Arch's retention layer	38	42	47	112	60	44	42	25	14	15	15	9	5	3
Arch remaining retention, net of incurred losses	128	127	132	96	162	188	121	227	160	135	157	145	142	155
Delinquency % (4)(9)	4.15%	3.91%	4.97%	7.04%	5.70%	2.79%	3.89%	1.28%	0.80%	1.19%	0.75%	0.60%	0.52%	0.31%
Delinquency trigger % (5)	5.00%	5.00%	5.00%	8.00%	5.00%	4.00%	5.00%	8.11%	7.61%	6.29%	7.99%	7.88%	5.78%	5.76%
Initial attachment % (cumulative losses as % of RIF)	2.25%	2.25%	2.25%	3.50%	2.50%	2.50%	2.25%	3.50%	2.50%	1.85%	2.00%	1.90%	2.25%	2.50%
Initial detachment % (cumulative losses as % of RIF)	7.25%	7.25%	8.60%	9.25%	9.50%	10.05%	10.25%	9.75%	9.00%	6.00%	9.50%	9.50%	12.00%	7.50%
Current attachment % (6) (cumulative losses as % of RIF)	12.46%	10.15%	12.39%	10.54%	13.41%	9.24%	9.28%	6.21%	3.45%	4.16%	2.38%	2.13%	2.43%	2.58%
Current detachment % (7) (cumulative losses as % of RIF)	18.58%	19.04%	31.95%	18.51%	37.49%	23.07%	29.41%	10.81%	10.15%	8.39%	10.66%	10.51%	12.95%	7.75%

* Numbers may not foot due to rounding.

See notes on accompanying page.

Arch MI US – Bellemeade Reinsurance Coverage by Deal

(1) Through March 31, 2022, including the initial coverage of $397M provided directly by a panel of reinsurers through traditional excess of loss agreements, Arch Mortgage Insurance Company ("AMIC") and United Guaranty Residential Insurance Company ("UGRIC") (together, "Arch MI" or the "Company"), has entered into various aggregate excess of loss mortgage reinsurance agreements with special purpose reinsurance companies (“SPRs”) domiciled in Bermuda. The SPRs are not subsidiaries or affiliates of the Company. Based on applicable accounting guidance, the Company does not consolidate the SPRs in its consolidated financial statements.

(2) An immaterial number of loans in each transaction have coverage dates outside of the indicated ranges.

(3) Policies between 2005 and 2008 were issued by UGRIC; Policies through 2015 were issued by both UGRIC and AMIC.

(4) Represents the percentage of risk in force that is 60 or more days delinquent.

(5) When delinquency triggers are reached, then bond amortization stops and coverage remains constant.

(6) Represents the amount of cumulative losses as a percentage of current risk in force that the Company retains prior to the Bellemeade notes absorbing losses.

(7) Represents the amount of cumulative losses as a percentage of current risk in force that must be reached before the Company starts reabsorbing losses again.

(8) The Bellemeade 2020-2, 2020-3, 2020-4, 2021-1, 2021-2, 2021-3, and 2022-1 delinquency triggers are not driven by a static delinquency percentage, but occur when the average sixty-day plus delinquency amount from the prior three periods is equal to or exceeds a specific percentage of all subordinate tranches. Bellemeade agreements 2020-2, 2020-3, 2020-4, 2021-1, 2021-2, and 2022-1 have a 75% threshold, while Bellemeade 2021-3 has a 60% threshold as calculated against all subordinate tranches. As the delinquency triggers are not static, the current delinquency triggers shown reflect the percentages as of 1Q22. These amounts may adjust in future periods.

(9) The information regarding delinquencies and cures is reported to the Company from loan servicers. Delinquency reporting, particularly on a monthly basis, may be affected by several factors, including the date on which the report is generated and transmitted to Arch MI, updated information submitted by servicers, and by the timing of servicing transfers.

Arch MI US – Bellemeade Reinsurance Coverage by Vintage

As of March 31, 2022 ($ 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
2012 and prior	$2,777	$ -	$2,777	69.3%	$1,923
2013	1,033	-	1,033	3.5%	36
2014	1,220	556	665	1.0%	6
2015	2,114	886	1,228	0.7%	9
2016	3,473	900	2,573	97.3%	2,504
2017	3,099	38	3,061	98.6%	3,018
2018	3,187	39	3,148	98.7%	3,108
2019	5,819	62	5,757	93.6%	5,389
2020	19,302	721	18,581	100.0%	18,581
2021	24,527	4,909	19,618	87.2%	17,114
2022	5,148	1,126	4,021	0.0%	0
Total *	**$71,699**	**$9,238**	**$62,461**	**82.8%**	**$51,688**

* Numbers may not foot due to rounding.
(1) RIF net of QS and excess of loss reinsurance is $54,792.

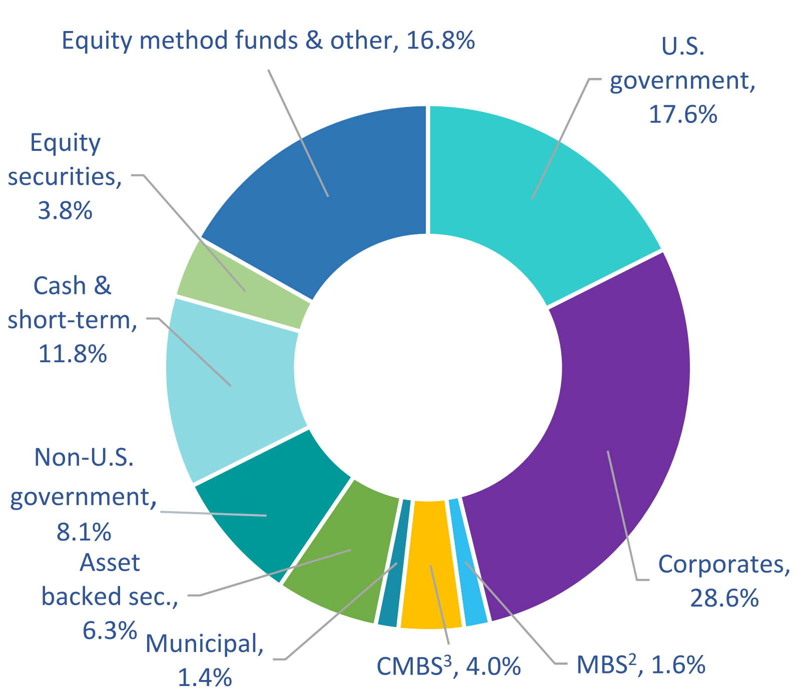
Key Terms of Bellemeade Re 2022-1

Cedants	▪ United Guaranty Residential Insurance Co. and Arch Mortgage Insurance Co.
Reinsurer	▪ Bellemeade Re 2022-1 Ltd. (Bellemeade Re), a special purpose reinsurer domiciled in Bermuda
Effective Date	▪ January 31 2022
Maturity	▪ January 26, 2032 (optional call on January 25, 2027)
Coverage	▪ Bellemeade Re will reinsure cedants' RIF on a pool of loans that was predominately originated between July 31, 2021 and November 30, 2021. ▪ Bellemeade Re is responsible for all losses exceeding 2.50% of RIF subject to an initial limit of **\$283.5 million (not including \$33 million of limit assumed by reinsurers).** ▪ Reinsurance from Bellemeade Re will inure to the benefit of Arch Re Ltd
Allocation of Principal Repayments	▪ If default rate and subordination thresholds are satisfied, Class A's coverage will be reduced by its pro rata share of principal repayments on covered loans, and remaining principal repayments on covered loans will be allocated to the most senior class with coverage remaining. ▪ Default rate threshold is satisfied if three month average of RIF on loans in default is less than 75% of the product of the reference pool's RIF and Class A's subordination. ▪ Subordination threshold is satisfied if sum of coverage subordinate to Class A exceeds or equals 8.5%. ▪ If either the default rate or subordination thresholds are not satisfied, all principal repayments on covered loans will be allocated to Class A (i.e., no amortization of bonds)
Allocation of Losses	▪ Covered losses are allocated sequentially to the most junior class with coverage remaining
Pricing	▪ Initial: M-1A (BBB high rating by DBRS Morningstar and Baa2 by Moody's): 175 basis points (bps), M-1B (BBB / Baa3):215 bps, M-1C (BB / Ba3): 370 bps, M-2 (B high / B3): 460 bps, and B-1 (B / NR): 550 bps (**duration weighted average: 348 bps including reinsurance and assuming exercise of call**)
Security	▪ Bellemeade Re will maintain a trust account with funds equal to coverage it provides to cedants. ▪ Eligible investments for trust are money market funds that invest directly in U.S. Treasuries and agencies

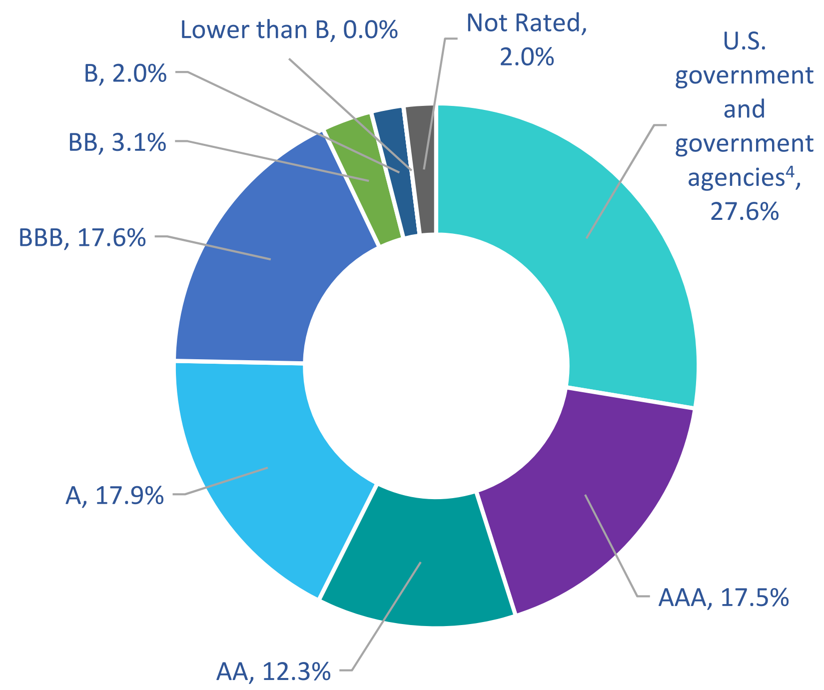
Our Investment Strategy

- 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 - $26.7B[1]



Fixed Maturity by Rating - $18.1B[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 Strategy – Impact Areas and Highlights

Our business is built on long-term thinking and an established history of delivering reliable risk management expertise to our markets. ESG thinking and processes are embedded across five core areas of Arch as we engage with stakeholders and help them plan, build and grow into a sustainable future.

ESG Highlights from our Five Impact Areas

1. Our Business	2. Our Operations	3. Our Investing	4. Our People	5. Our Communities
Strategic approach to enterprise risk management, including integration of climate risk.	Ensuring data privacy and protection.	Adopting and implementing a Responsible Investing Policy.	Implementing our D&I strategy and continued focus on creating an inclusive culture.	Corporate giving of $6.3 million to organizations that support our giving focus areas.
Underwriting initiatives to improve resiliency and transition to a lower carbon economy, including screening thermal coal accounts in our insurance operations.	Conducting business ethically including working with suppliers that adhere to the same ethical standards.	Continuing to focus on impact investments including green bonds.	Activating a new career leveling framework.	Forming an Arch Group Foundation.
Underwriting socially sustainable insurance products.	Measuring our emissions and committing to net zero by 2030 for Scopes 1 & 2.	Integrating ESG risks in investment decisions and continuing to invest with UN PRI signatories.	Protecting our employees' health and well-being.	Organizing a first worldwide volunteer event to celebrate Arch's 20th anniversary.

Our ESG Strategy – Transparency and Disclosures

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We take a measured approach to identifying existing and emerging ESG topics material to Arch and our wider industry and to working with internal groups to ensure appropriate integration of ESG risks and opportunities. Annually, we share our progress and disclosures around these topics to shareholders, rating agencies and the public.

Arch's Annual ESG 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 & *New* Highlights Report

Arch Capital Group Ltd. SUSTAINABILITY REPORT 2021

Intended for all stakeholders and the general public. Comprehensive ESG strategy and priority disclosure areas.

Sustainability Accounting Standards Board (SASB) Report

Intended for investors. Disclosures around the financial impacts of sustainability.

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

Intended for investors and sustainability specialists. Climate-related financial disclosures; climate change scenario analyses.

Arch's ESG Priority Topics Matrix*

To better account for current and emerging ESG trends, in 2021, we undertook a high-level review of our sustainability priorities. We value ongoing feedback from our stakeholders and will review our ESG priorities annually. **Alphabetical order.*

E	S		G
	Social Capital	*Human Capital*	
Carbon Emissions (Operations)	Access to Finance & Social Product Development	Employee Health & Safety	Business Ethics & Standards
Climate Risk & Climate Change Management	Community Relations/ Engagement	Diversity & Inclusion	Corporate Governance
Financing Environmental Impact	Privacy & Data Security		Systemic Risk Management
	Responsible Investment		
	Supply Chain Labor Standards		

Superior Risk-Adjusted Returns

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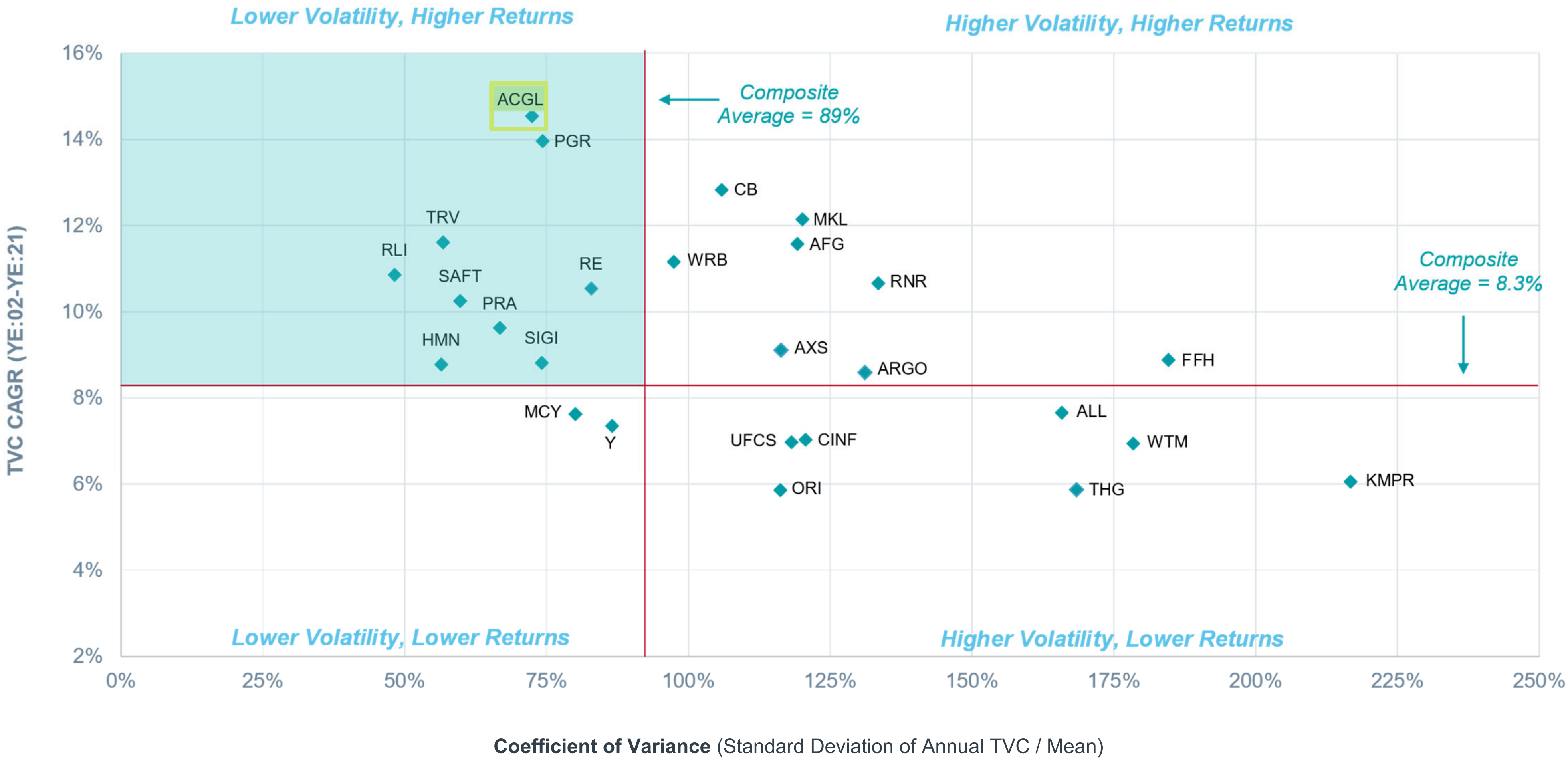
Strong track record of generating higher, more consistent risk-adjusted returns

Total Value Creation vs. Coefficient of Variation – Total Composite

12/31/2002 – 12/31/2021



Source: D&P Analysis. Chart represents **Total Value Creation,** which includes Tangible book value per share growth plus dividends.
Note: Excludes CNA (3.5%, 333%), Hartford (3.1%, 350%), MGIC (-3.0%, 539%) and Radian (-0.7%, 562%) as coefficient of variation exceeds 250%.

Contact

Investor Inquiries:

Donald Watson
Executive Vice President,
Financial Services
(914) 872 3616
DWatson@archgroup.com

Vinay Misquith
Senior Vice President,
Financial Services
(914) 872 3666
VMisquith@archgroup.com