Investor Presentation

2023 First Quarter

Arch

Informational Statements

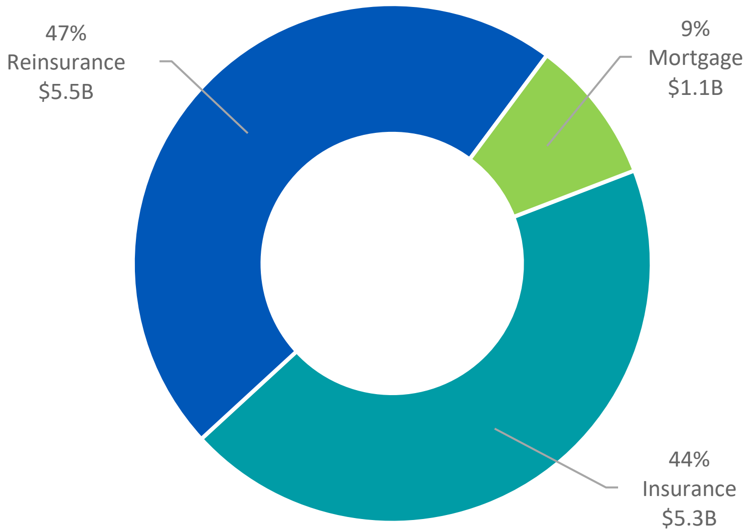
The Private Securities Litigation Reform Act of 1995 (“PSLRA”) provides a “safe harbor” for forward-looking statements. This release or any other written or oral statements made by or on behalf of Arch Capital Group Ltd. and its subsidiaries may include forward-looking statements, which reflect our current 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; a disruption caused by cyber attacks or other technology breaches or failures on us or our business partners and service providers, which could negatively impact our business and/or expose us to litigation; 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 may contain 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 information about the specific non-GAAP measures used herein can be found within this presentation/video/document. Additional information about non-GAAP measures can also 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 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.

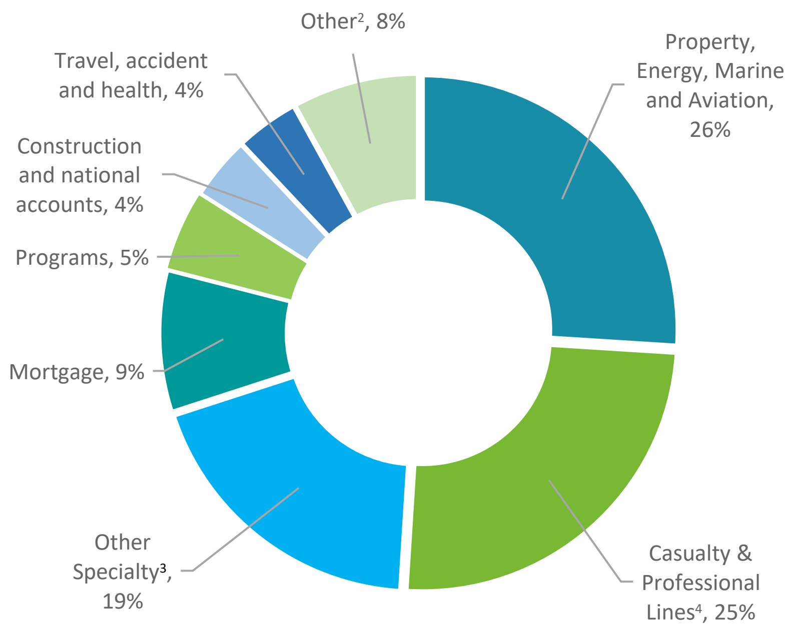
Specialty Insurance Businesses

Arch operates leading specialty insurance lines across a wide range of geographies and products

Total Net Premiums Written $11.9B[1]



Line of Business[1]



[1] Trailing twelve months (TTM) at March 31, 2023.
[2] Includes insurance for warranty and lenders solutions, alternative markets and other insurance and reinsurance.
[3] Includes reinsurance for proportional motor, cyber, trade credit and surety, accident and health, workers' compensation catastrophe, agriculture, political risk and other.
[4] Includes casualty, professional liability, executive assurance, cyber insurance, healthcare, contract binding and excess motor.

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

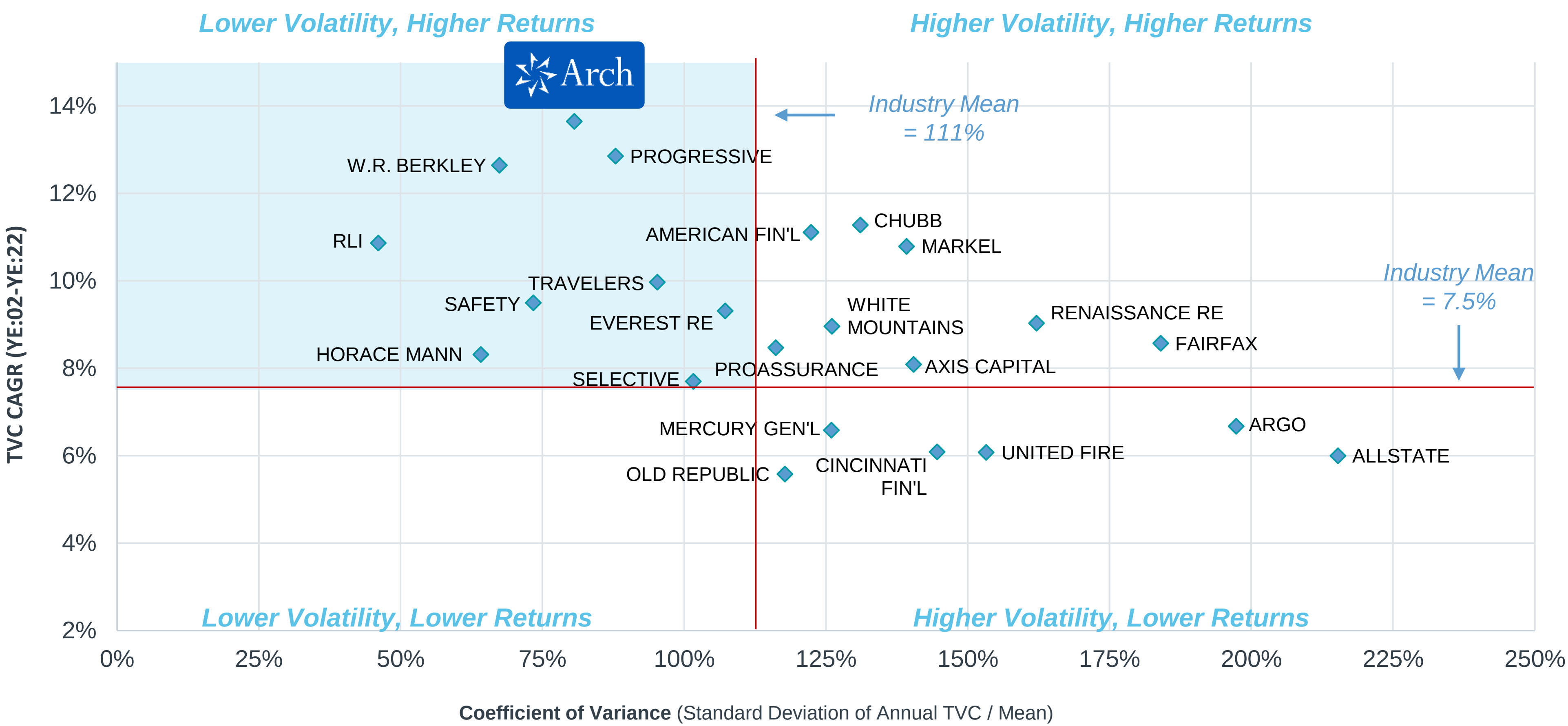
- Minimize investment risk
- Cautious reserving philosophy
- Low financial leverage and strong liquidity

Consistently Superior Risk-Adjusted Returns

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

Total Value Creation vs. Coefficient of Variation – Total Composite

12/31/2002 – 12/31/2022

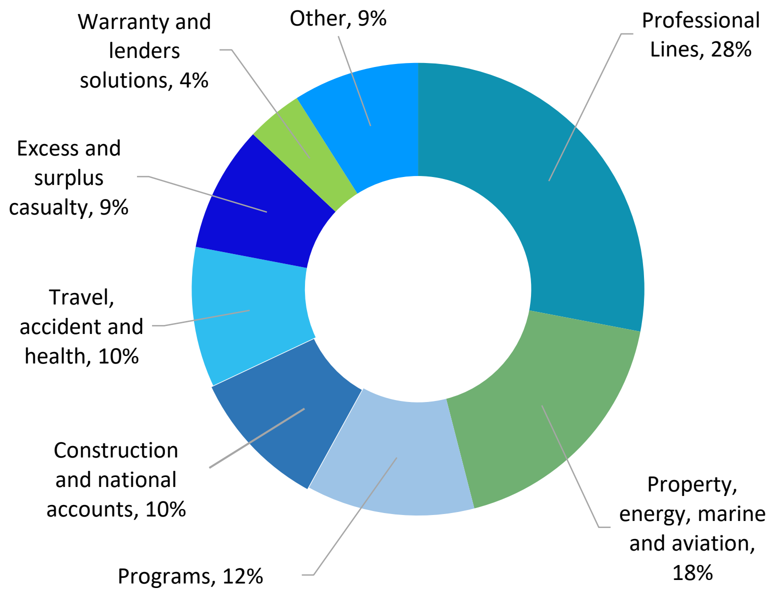


Source: D&P Analysis. Chart represents **Total Value Creation,** which includes Tangible book value per share growth plus dividends.
Note: Ex. CNA (2.5%, 455%), Hartford (2.2%, 451%), Kemper (3.9%, 330%), MGIC (-2.6%, 544%) and Radian (-0.4%, 565%) as coefficient of variation exceeds 250%.

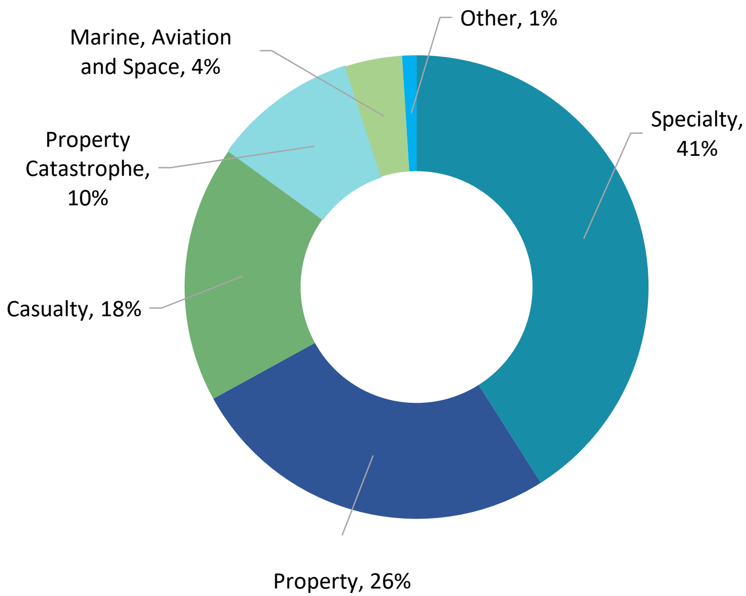
Property Casualty Segments

Diversification reduces earnings volatility

Insurance Net Premiums Written $5.3B[1,2]



Reinsurance Net Premiums Written $5.5B[1,3]

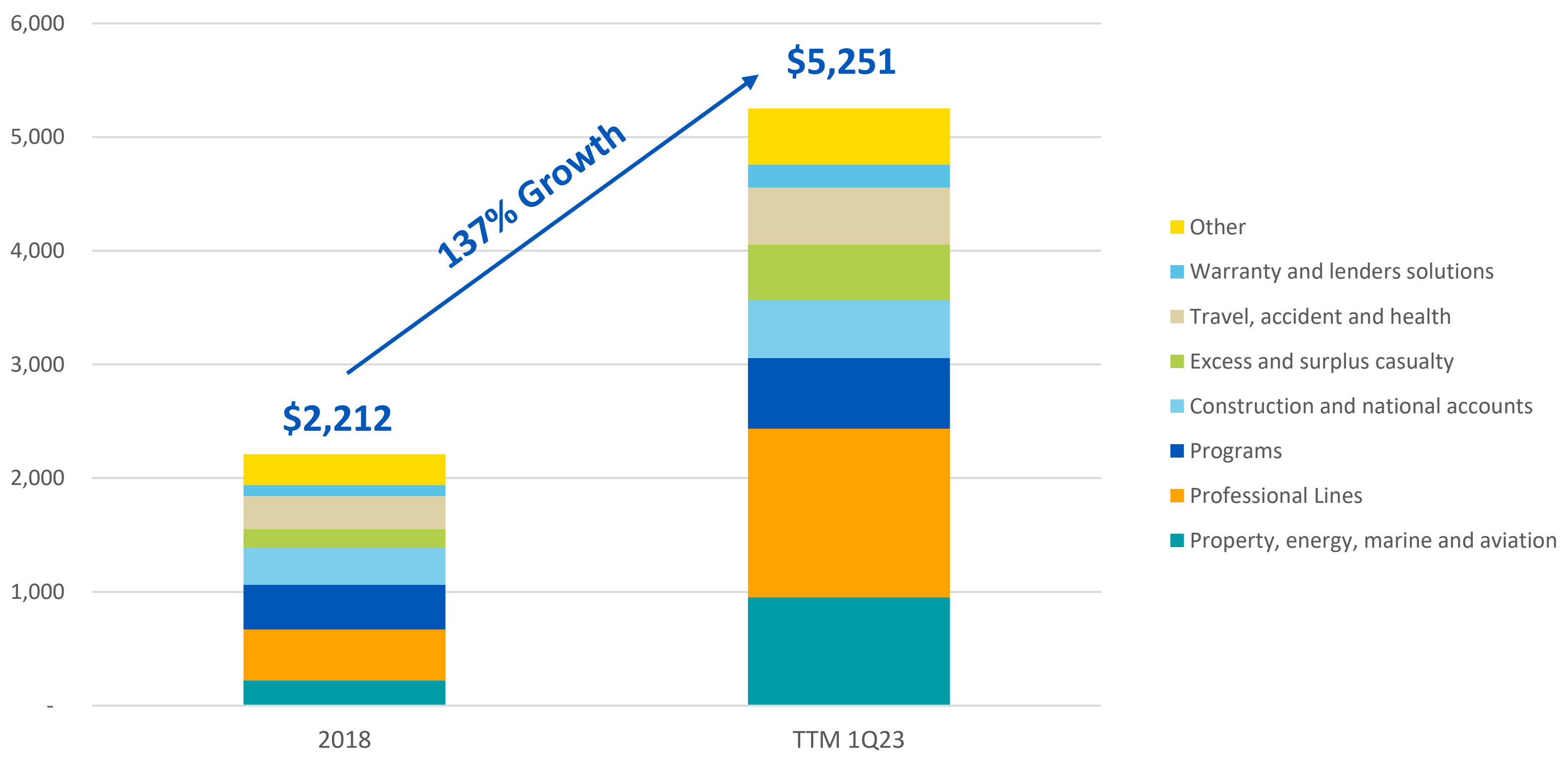


[1] Trailing twelve months at March 31, 2023.
[2] See page 6 for more details on insurance lines of business.
[3] See page 7 for more details on reinsurance lines of business.

Insurance Segment

Building on growth opportunities

Calendar Year Net Premiums Written by Line ($M)

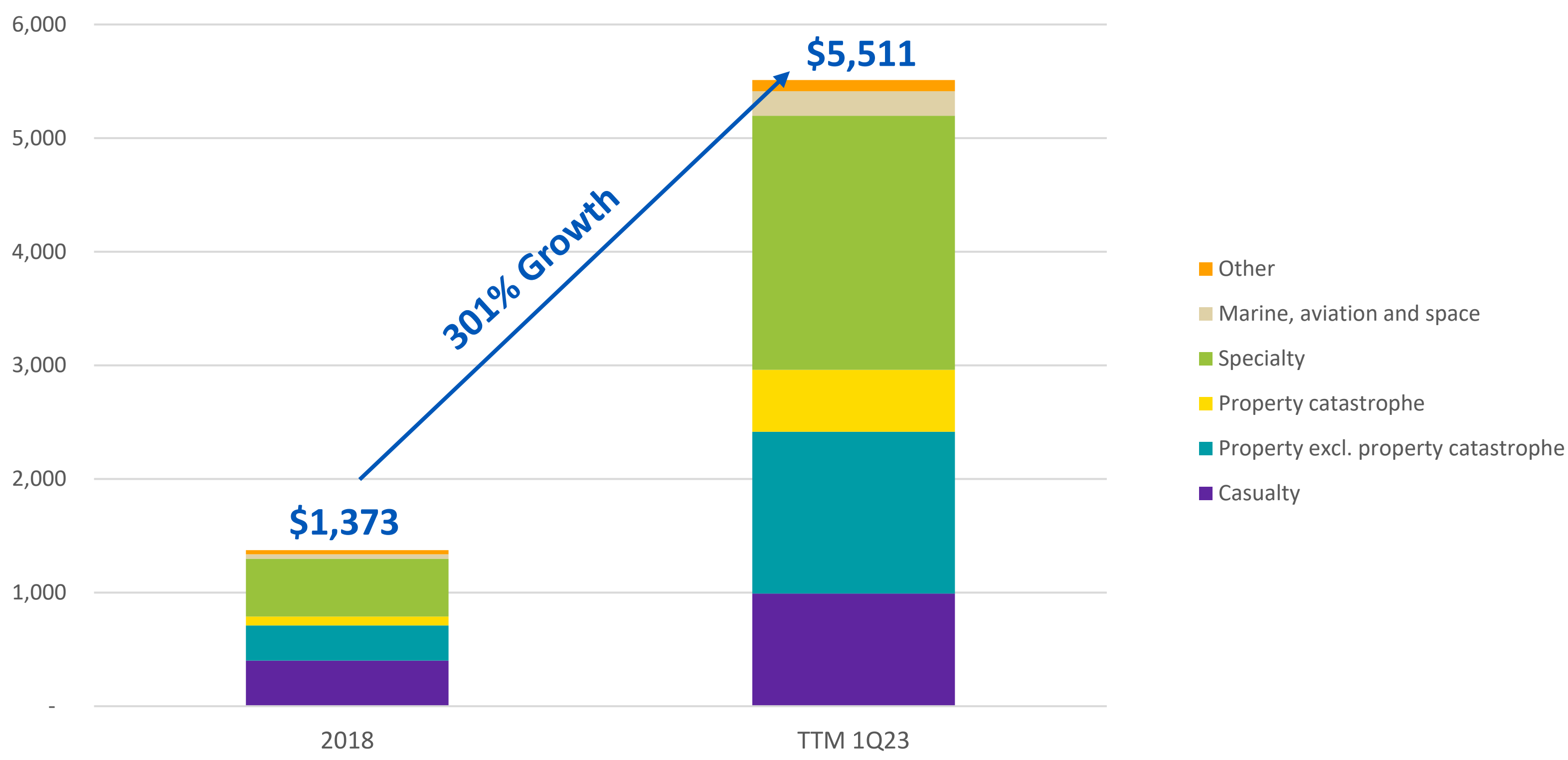


***Insurance Segment*: Professional Lines** includes professional liability, cyber insurance, executive assurance and healthcare business. **Excess and surplus casualty** includes casualty and contract binding business. **Other** includes alternative markets, excess workers' compensation and surety business.

Reinsurance Segment

Growing into a hard market

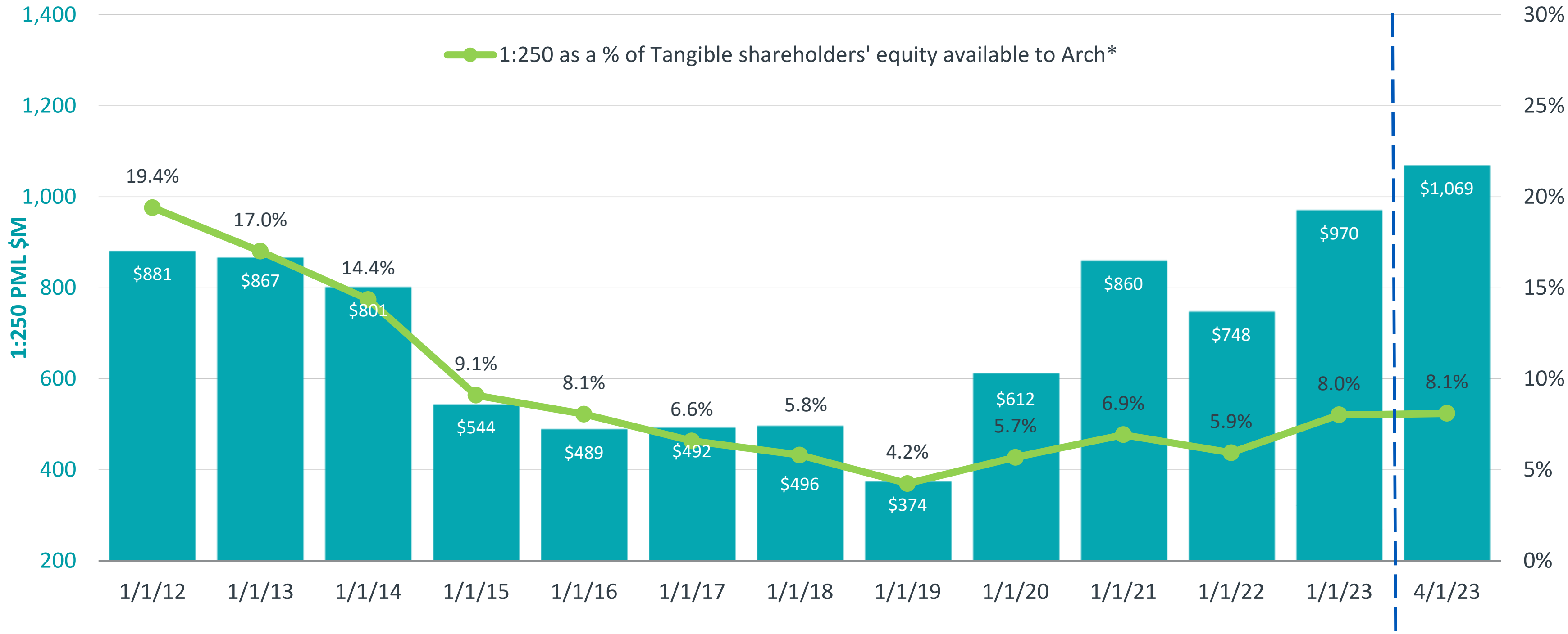
Calendar Year Net Premiums Written by Line ($M)



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

Managed Catastrophe Risk

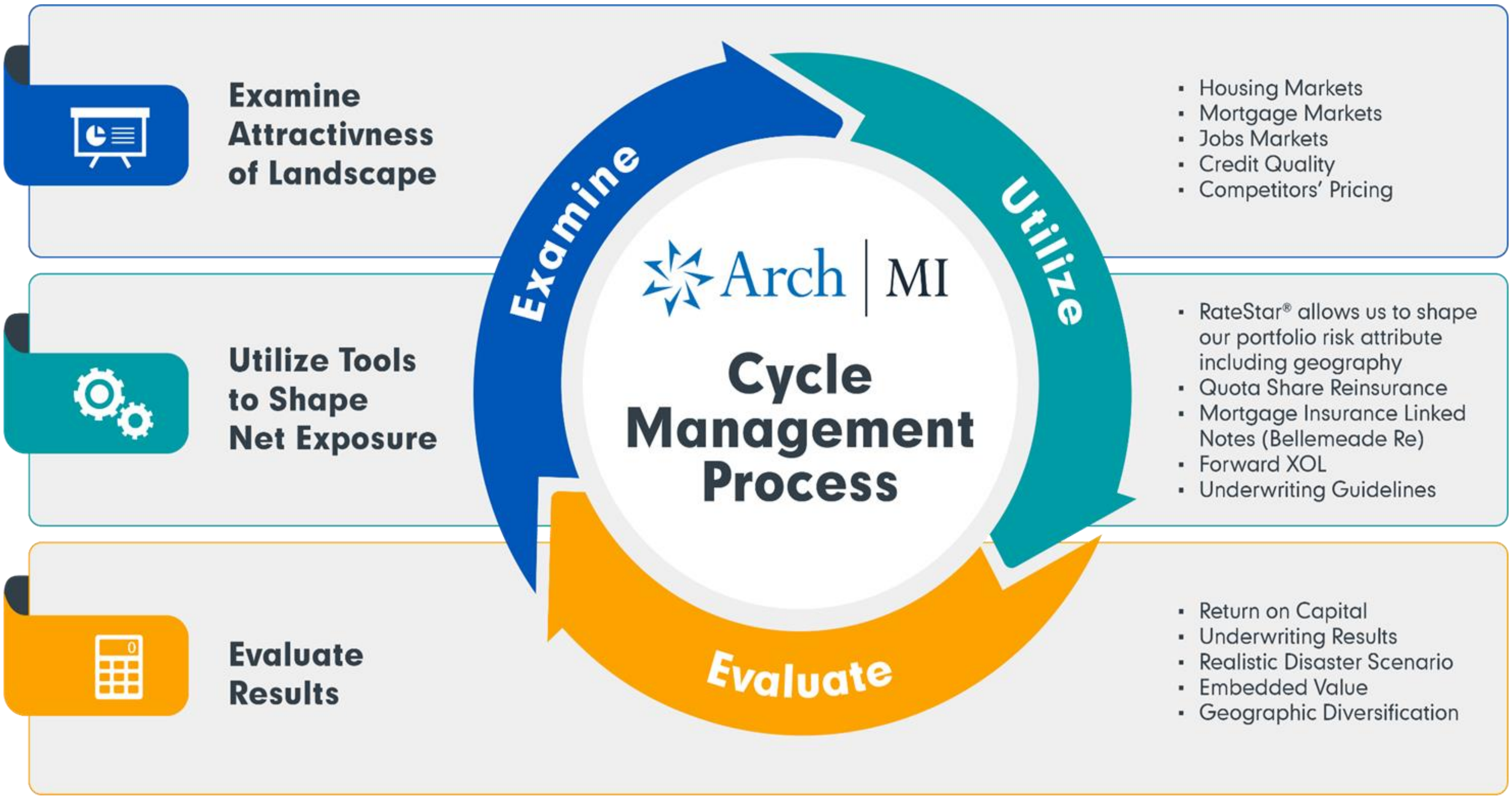
ACGL Peak Zone 1:250 PML



*** Non-GAAP Financial Measures**: Tangible shareholders' equity available to Arch represents total shareholders' equity available to Arch, which includes non-cumulative preferred shares, less goodwill and intangible assets (excluding amounts attributable to non-controlling interests). We believe that tangible shareholders' equity available to Arch is useful to investors because it provides a more accurate measure of the realizable value of shareholders' equity. The following table provides a reconciliation of total shareholders' equity available to Arch to tangible shareholders' equity available to Arch:

	December 31												
(U.S. Dollars in Millions)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Mar-23
Total shareholders' equity available to Arch	$ 4,563	$ 5,134	$ 5,609	$ 6,092	$ 6,167	$ 8,254	$ 9,197	$ 9,440	$ 11,497	$ 13,106	$ 13,546	$ 12,910	$ 13,988
Less: goodwill and intangible assets	22	38	27	110	98	775	646	628	731	682	942	802	783
Tangible shareholders' equity available to Arch	$ 4,541	$ 5,096	$ 5,582	$ 5,982	$ 6,069	$ 7,479	$ 8,551	$ 8,812	$ 10,766	$ 12,424	$ 12,604	$ 12,108	$ 13,205

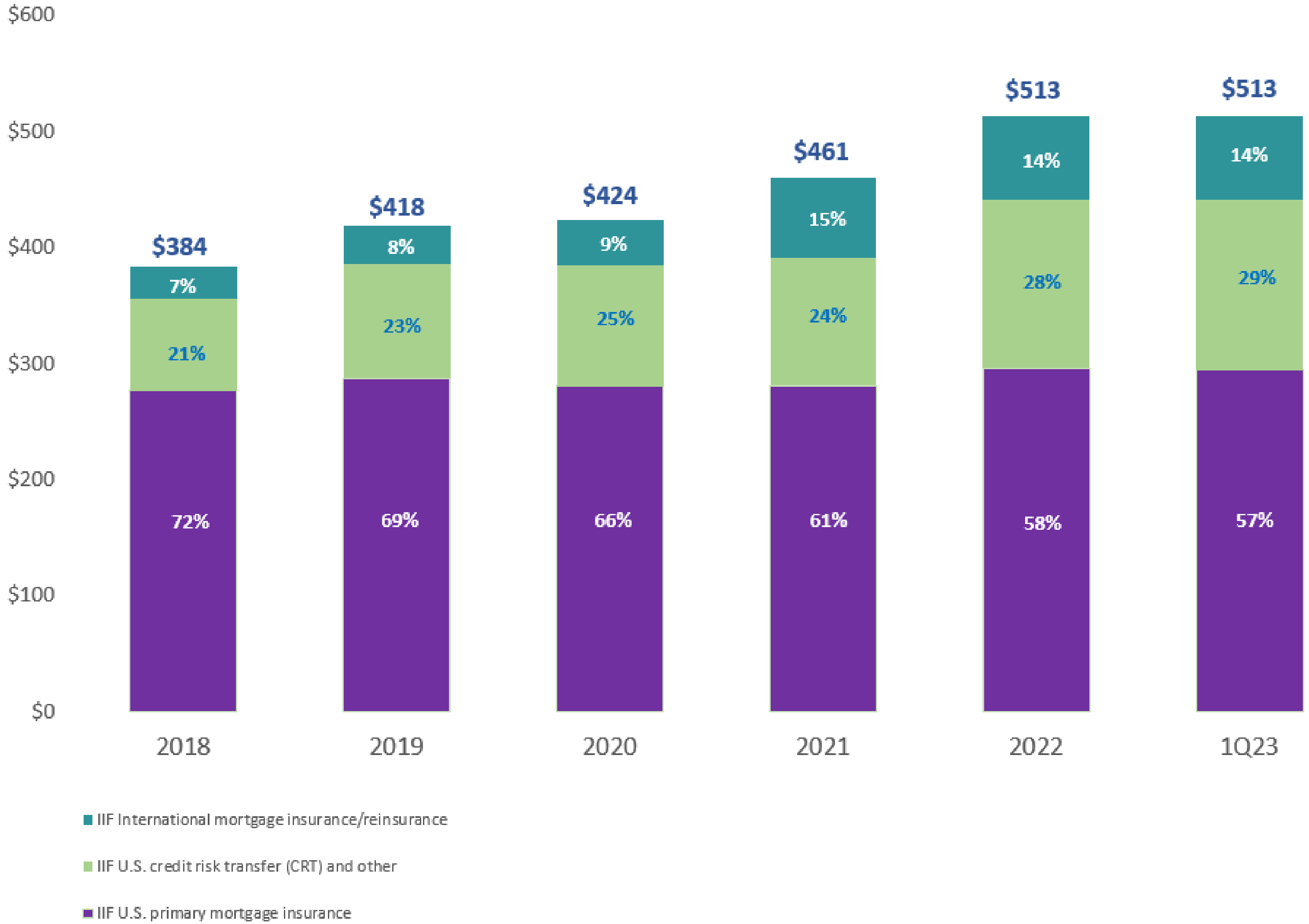
Differentiated business model



Mortgage Segment

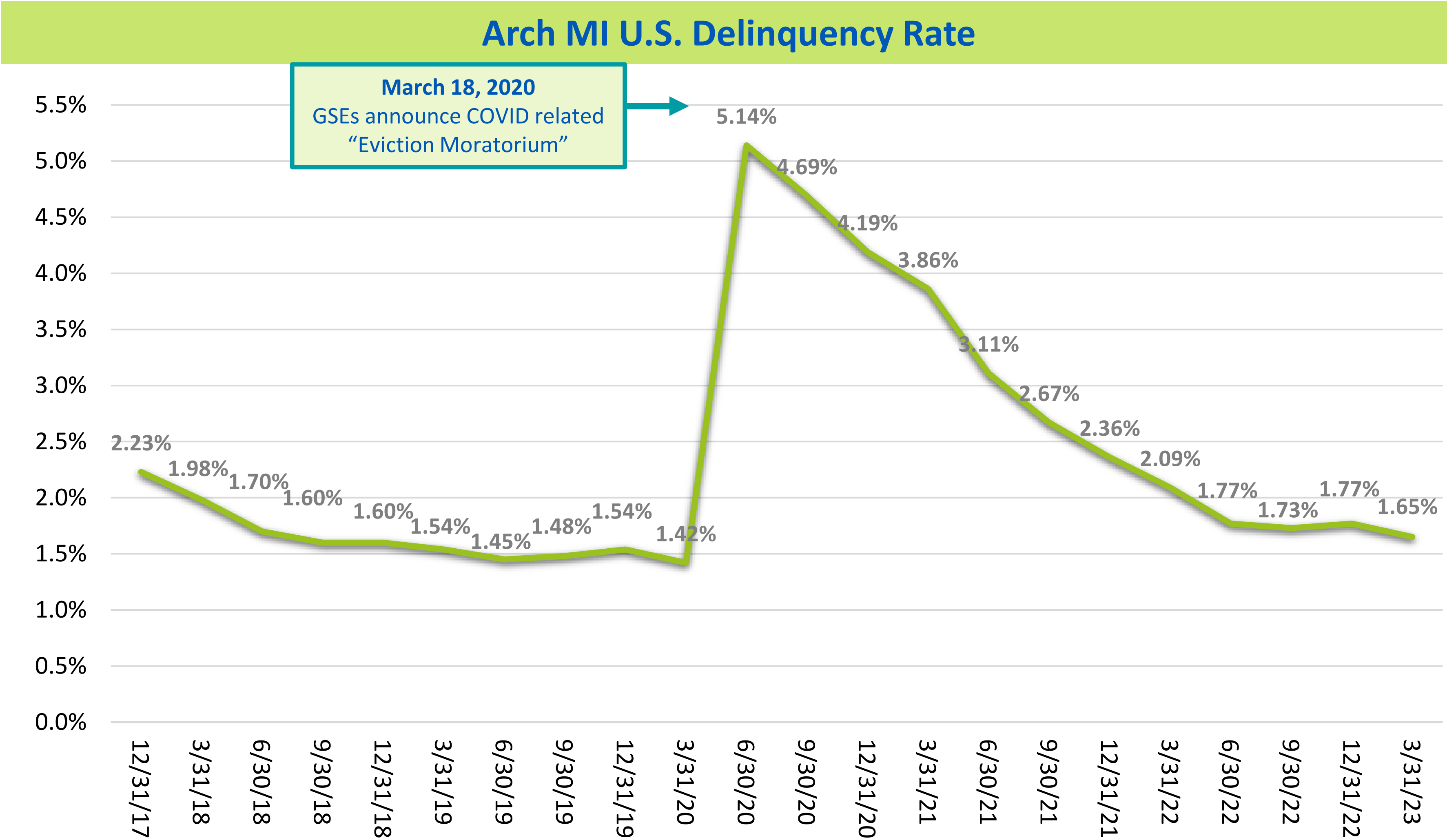
Stable growth

Insurance In Force ($B)



Mortgage Segment

Credit quality remains high

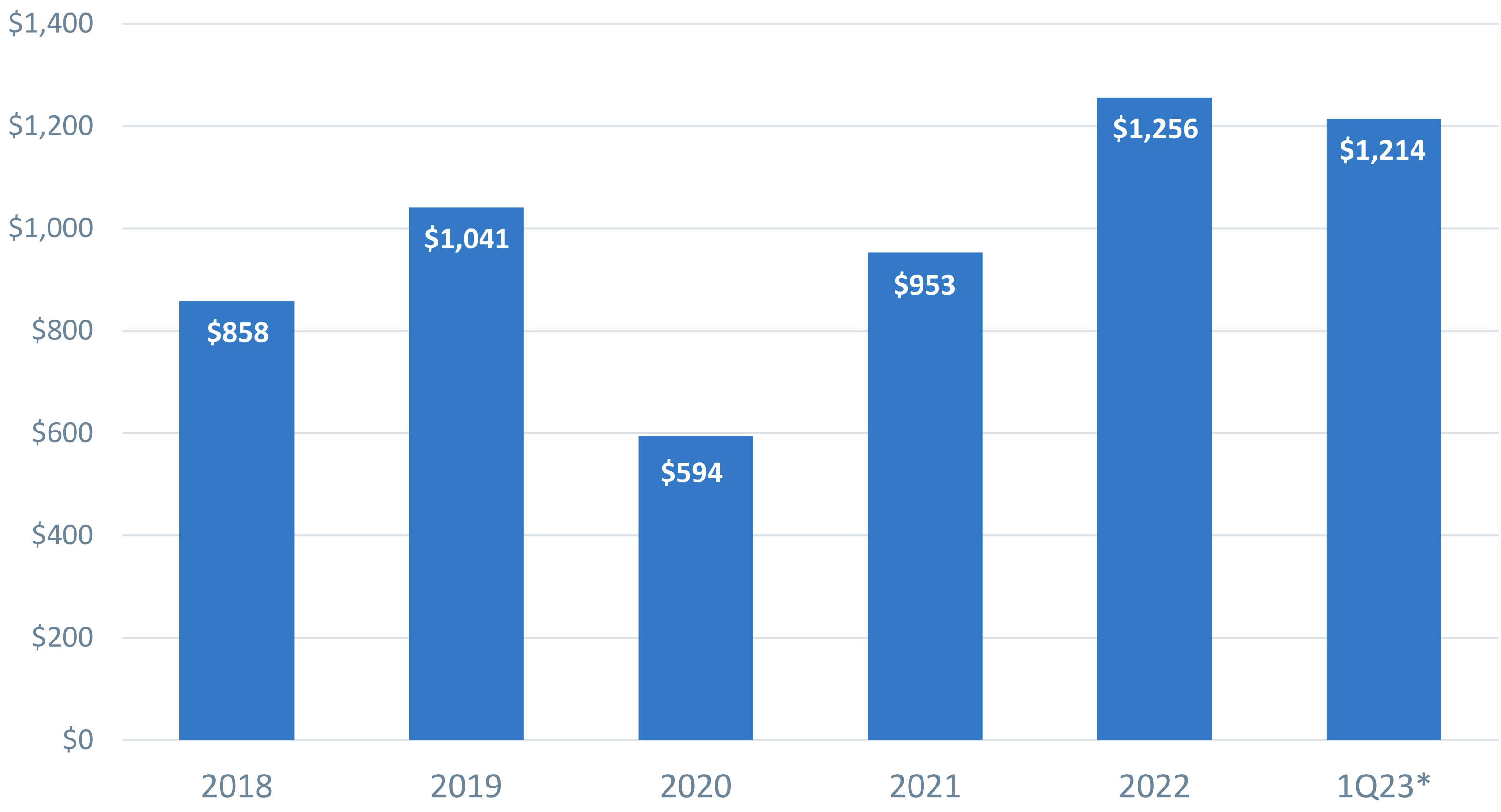


As of 3/31/2023, PMIERs sufficiency ratio: 248% – Calculated as available assets divided by required assets as defined within PMIERs; $2.3 billion of excess available assets.

Mortgage Segment

Strong earnings not correlated to Property & Casualty insurance cycle

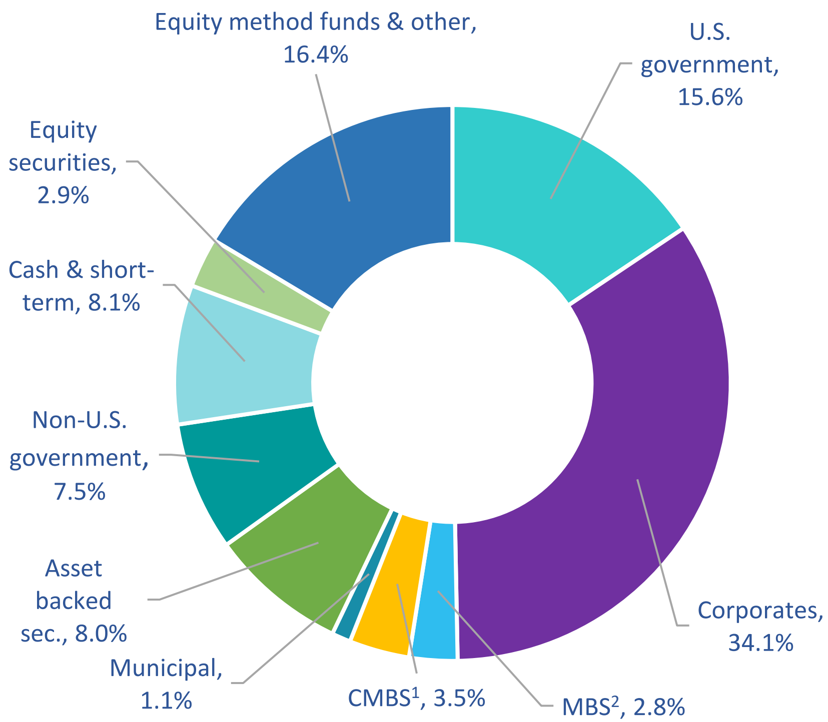
Underwriting Income ($M)



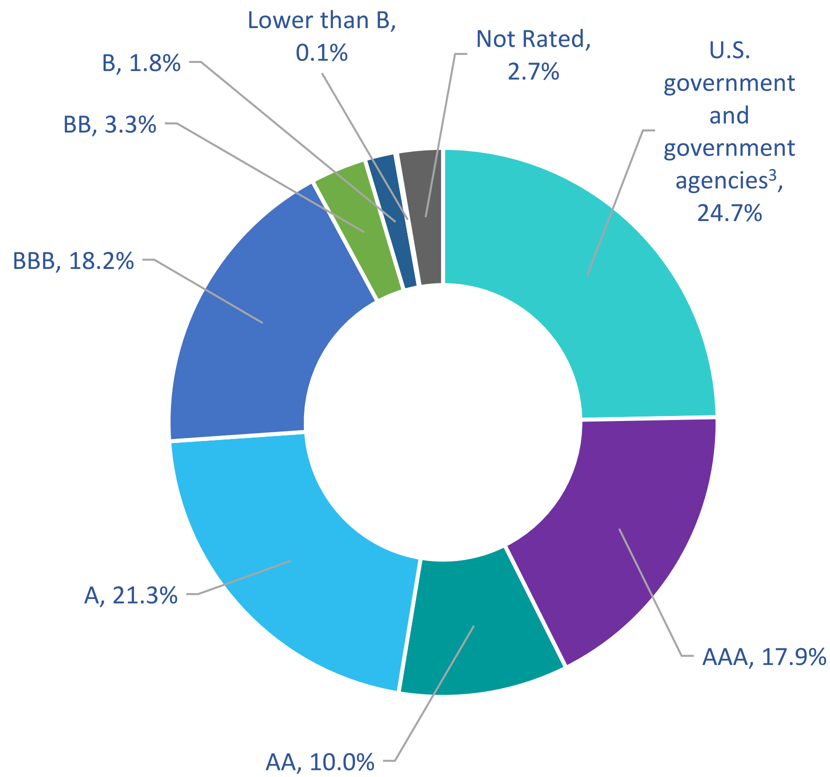
*Trailing twelve months ended March 31, 2023 for 1Q23.

Conservative portfolio focused on total return

Invested Assets - $29.4B

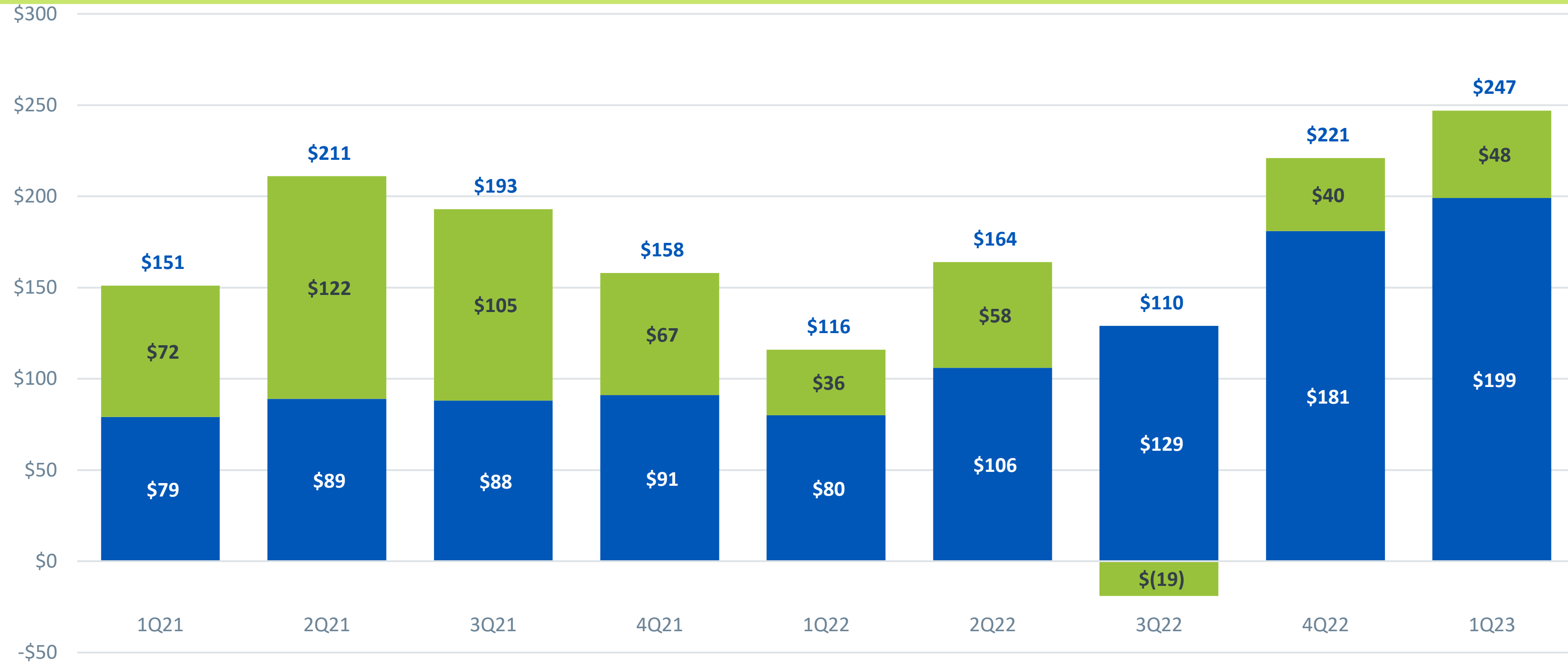


Fixed Maturity by Rating - $21.3B



[1] CMBS = Commercial mortgage backed securities.
[2] MBS = Mortgage backed securities.
[3] Includes U.S. government – sponsored agency MBS and agency CMBS.

Net Investment Income + Equity Method Investments ($M)



Total Investable Assets in ($M):	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
	$26,339	$27,291	$27,278	$27,442	$26,749	$26,395	$26,682	$28,065	$29,401

■ Net Investment Income ■ Equity Method Income or Loss

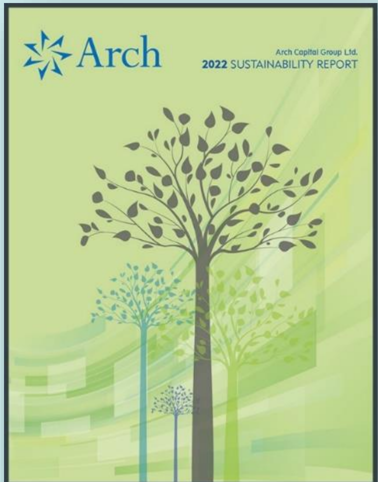
Net Investment Income: Investment income net of investment expenses, included as part of operating income.
Equity Method Investments: Equity in net income (loss) of investment funds accounted for using the equity method. Not included in operating Income. Excluding investments in operating affiliates.

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

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 change/risk.	Maintaining data privacy and cybersecurity programs.	Implementing a Responsible Investing Policy.	Advancing our D&I strategy and continued commitment to creating an inclusive culture.	Corporate giving of $5.6 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 responsible investing and continuing to invest with UN PRI signatories.	Expanding career development frameworks and mentorship programs.	Activating our Arch Group Foundation.
Underwriting socially sustainable insurance products.	Measuring and committing to mitigate our Scope 1 and 2 GHG emissions in line with our 2030 goal for net zero.	Considering ESG risks and opportunities in investment decisions.	Protecting our employees' health and well-being.	Continuing to support regional volunteerism through our volunteer time-off program.

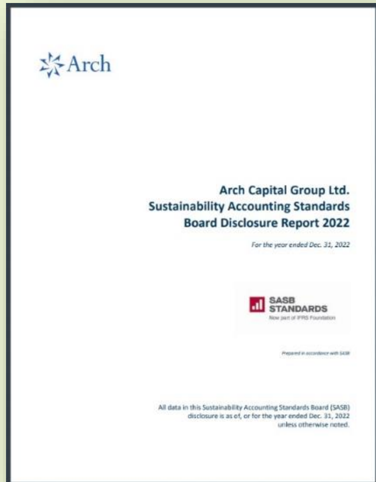
Our ESG Documents

We believe in the value of transparency of our ESG initiatives, and we are committed to communicating our progress to interested stakeholders on an annual basis though the following three reports:



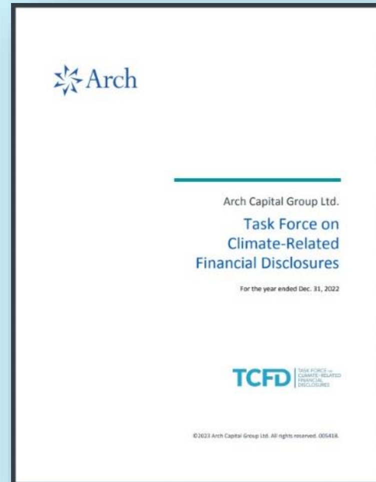
Annual Sustainability Report Highlights Report

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.

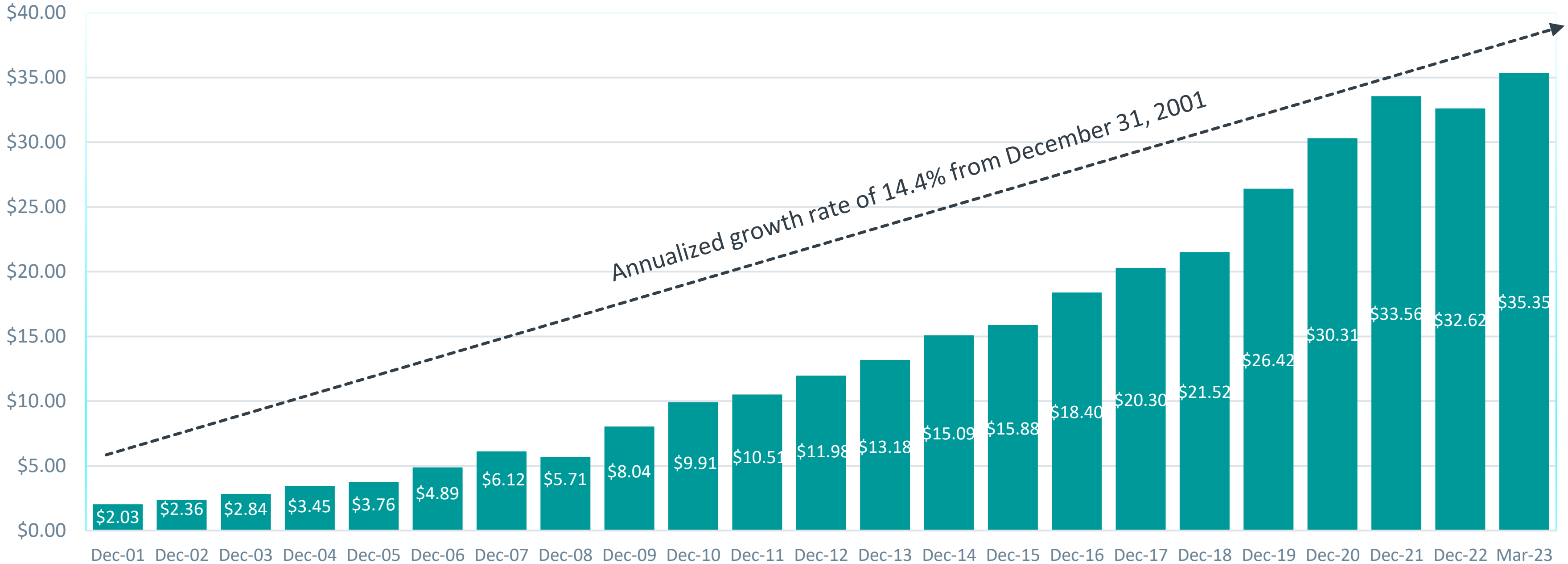


Task Force on Climate-Related Financial Disclosures (TCFD) Report

Intended for investors and sustainability specialists. Climate-related financial disclosures including governance, strategy, risk management and metrics/targets.

Value Creation

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	Dec-22	Mar-23
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	$16.7
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%	21.3%

[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.

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