Investor Presentation
2022 Second 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.

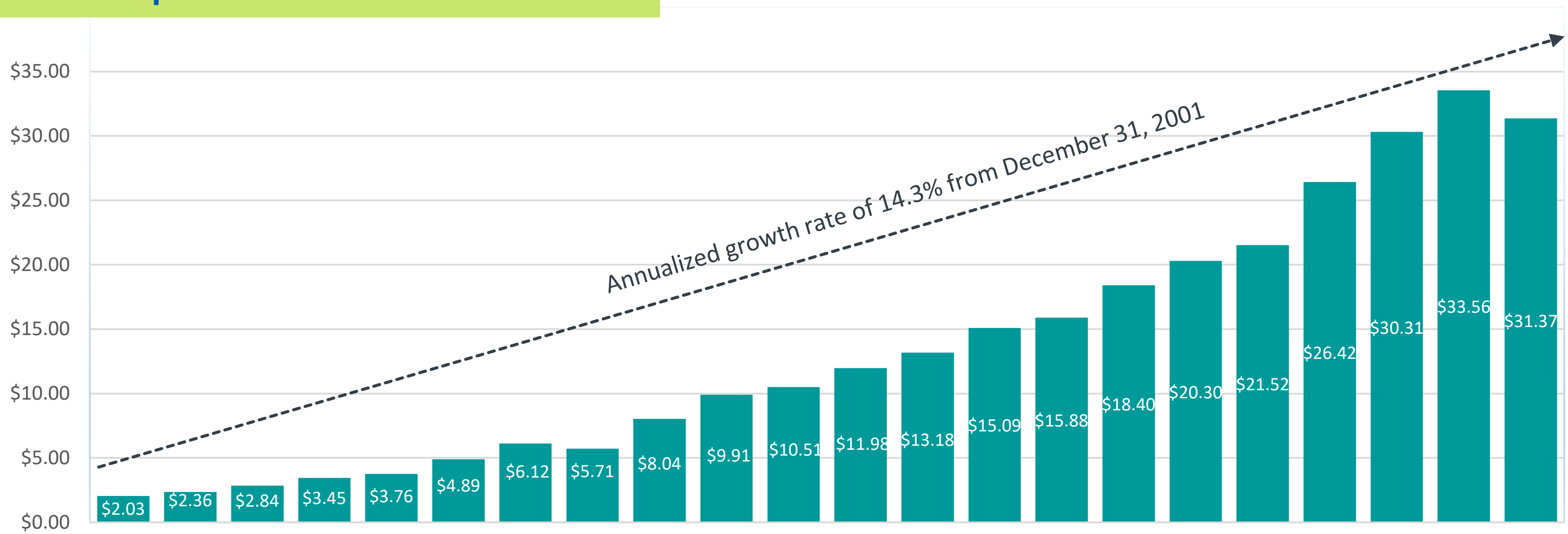
Forward-looking statements, for purposes of the PSLRA or otherwise, can generally be identified by the use of forward-looking terminology such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe” or “continue” and similar statements of a future or forward-looking nature or their 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	Jun-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	$15.1
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%	23.5%

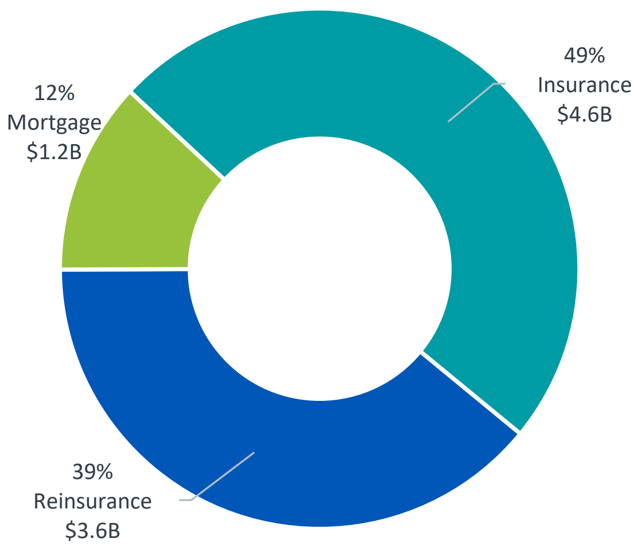
[1] Excluding the effects of stock options and restricted stock units outstanding

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

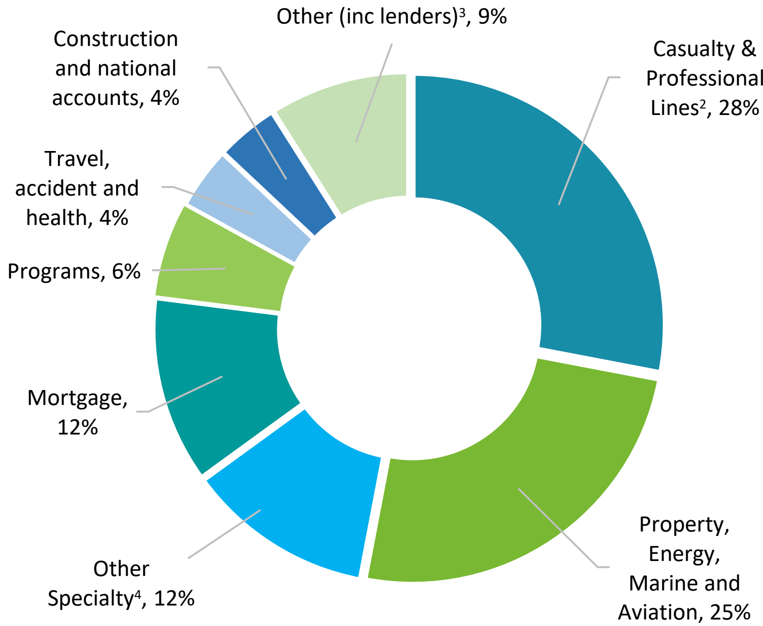
Specialty (Re)insurance Strategy

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

Total Net Premiums Written $9.4B[1,5]



Line of Business[1]

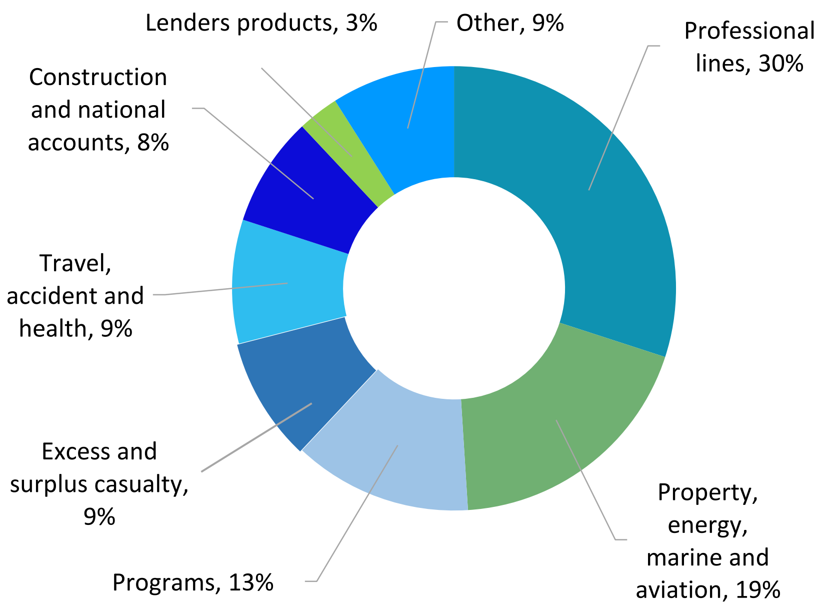


[1] Trailing twelve months at June 30, 2022.
[2] Includes casualty, professional liability, executive assurance, healthcare, contract binding and excess motor.
[3] Includes insurance for lenders products, alternative markets and other insurance and reinsurance.
[4] Includes reinsurance for proportional motor, cyber, trade credit and surety, accident and health, workers' compensation catastrophe, agriculture, political risk and other.
[5] Underwriting location: U.S. 52%, Europe 22%, Bermuda and Other 26%.

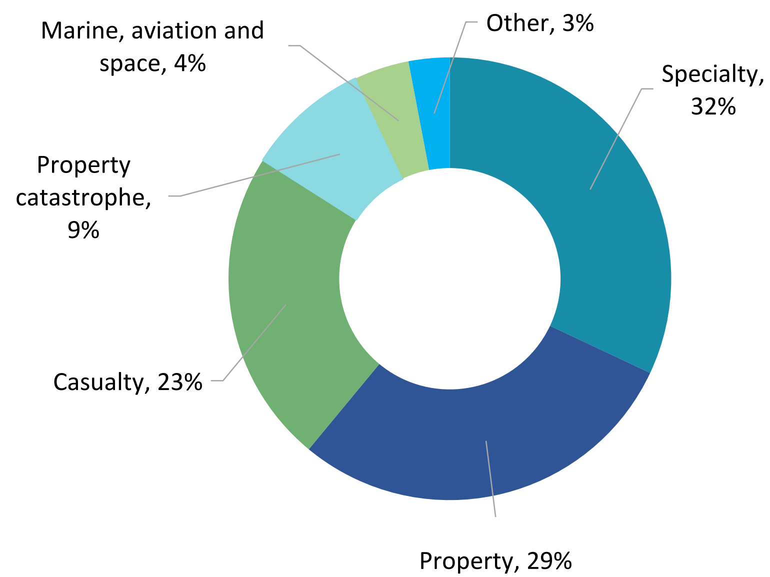
Property Casualty Segments

Diversified book of business across products and geographies

Insurance Net Premiums Written $4.6B*



Reinsurance Net Premiums Written $3.6B*

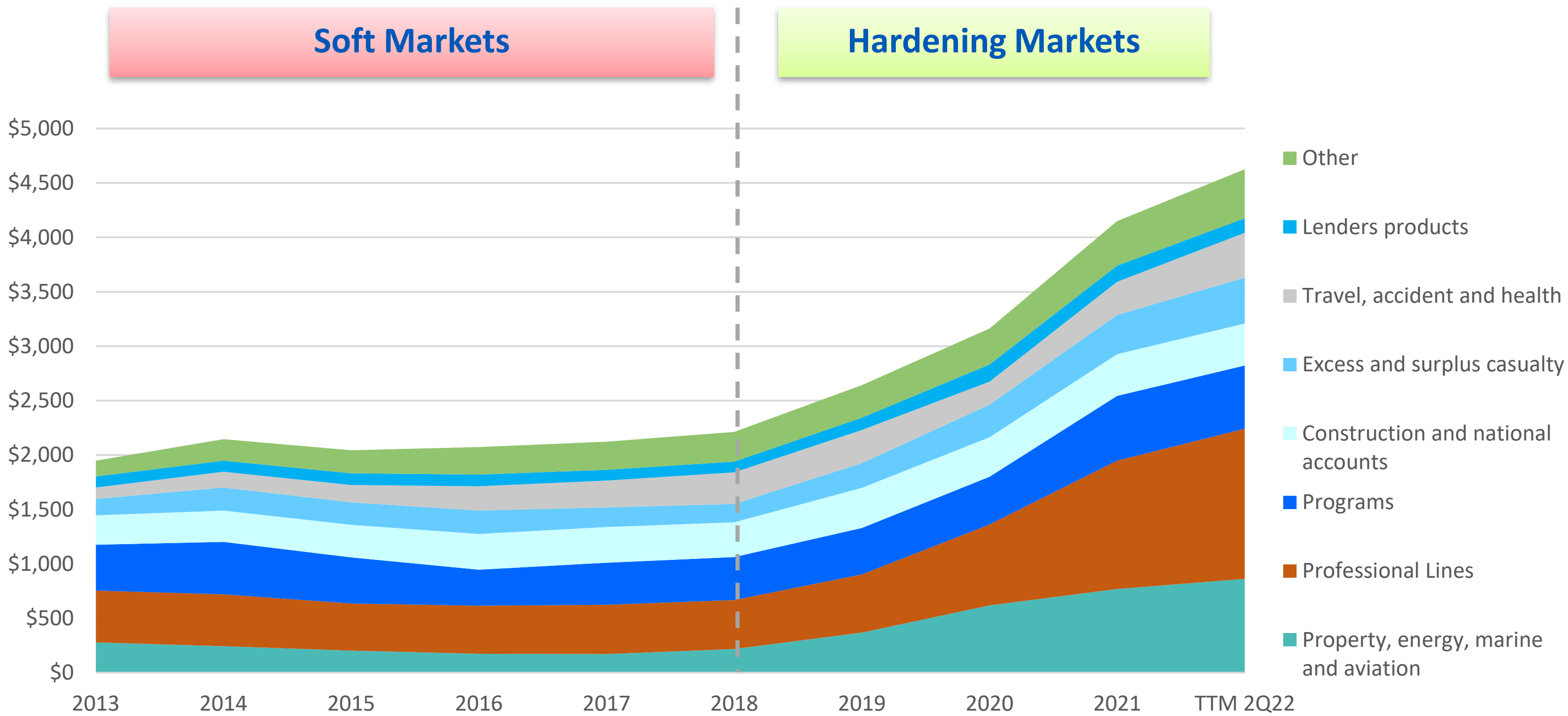


*Trailing twelve months ended June 30, 2022.

Specialty Insurance – Building on Market Opportunities

Arch

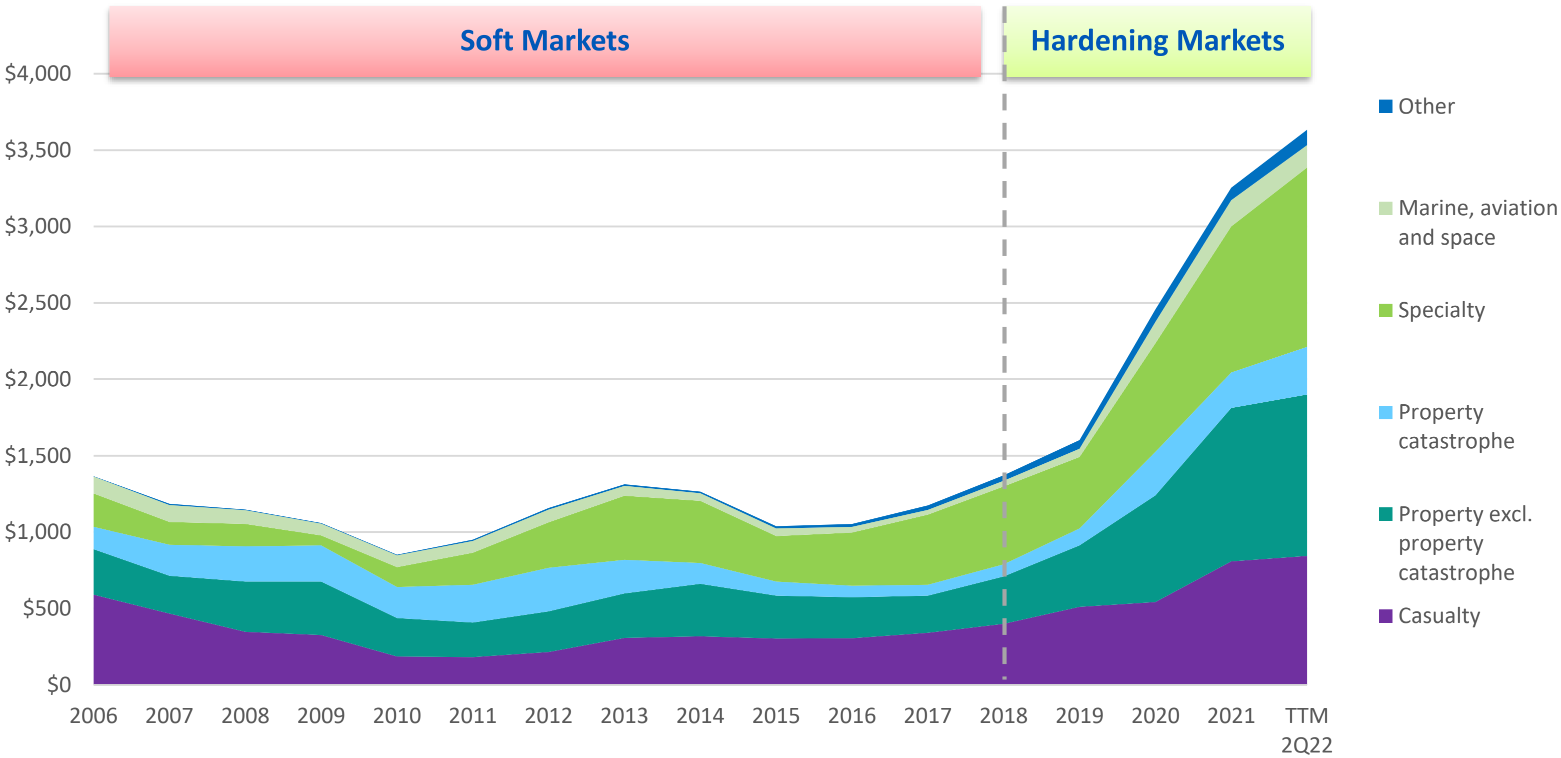
Calendar Year Net Premiums Written by Line ($M)



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 – Flexing into a Hard Market

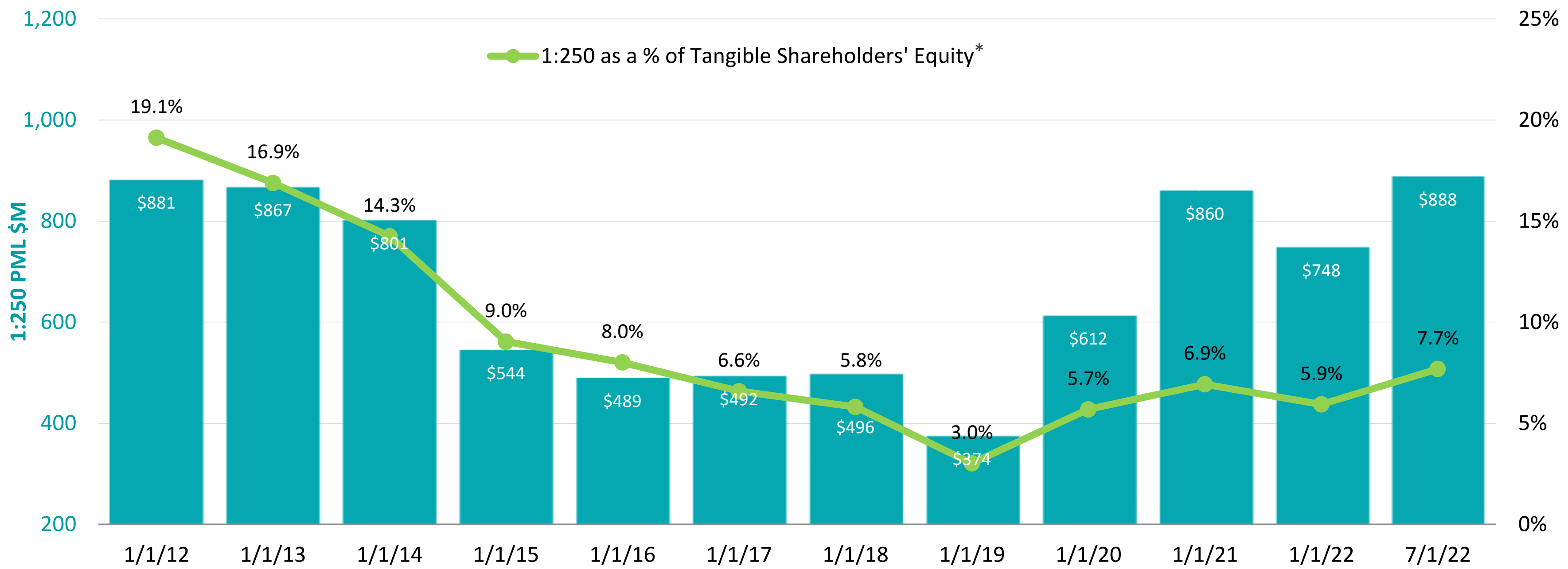
Calendar Year Net Premiums Written by Line ($M)



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

Mortgage Segment: Differentiated Business Model

Arch

Arch MI manages the industry's cycles by shaping our net exposure to maximize our risk adjusted return given our assessment of the landscape.

Examine Attractivness of Landscape

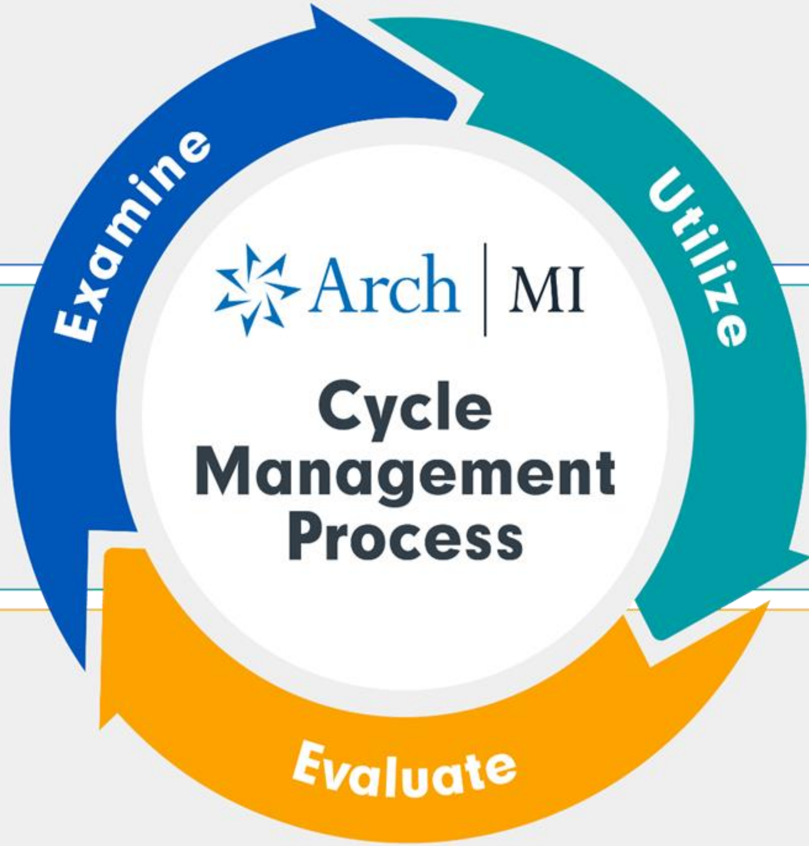
- Housing Markets
- Mortgage Markets
- Jobs Markets
- Credit Quality
- Competitors' Pricing

Utilize Tools to Shape Net Exposure

- RateStar® allows us to shape our portfolio risk attribute including geography
- Quota Share Reinsurance
- Mortgage Insurance Linked Notes (Bellemeade Re)
- Forward XOL
- Underwriting Guidelines

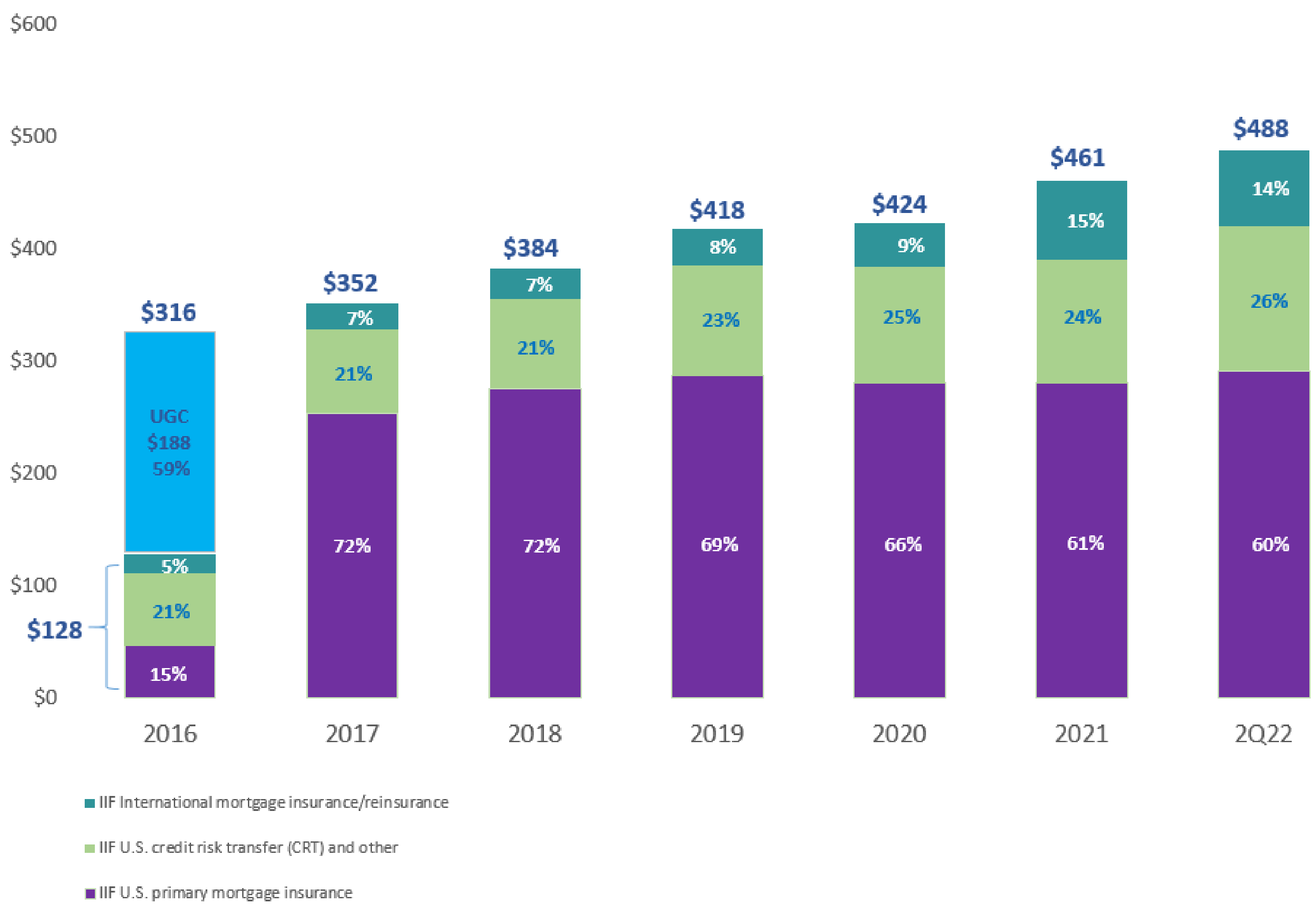
Evaluate Results

- Return on Capital
- Underwriting Results
- Realistic Disaster Scenario
- Embedded Value
- Geographic Diversification



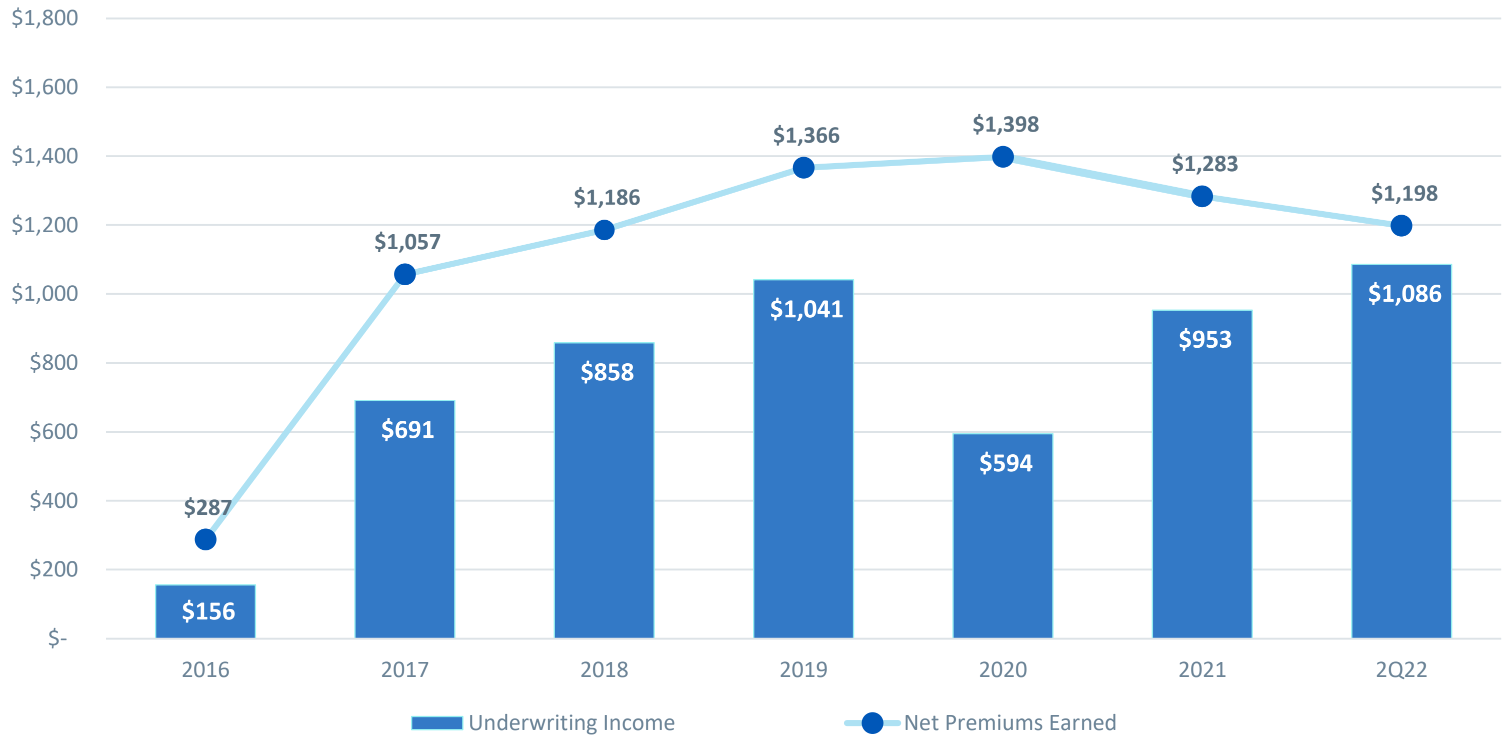
Mortgage Segment: Diversified Book

Insurance In Force (IIF) $B



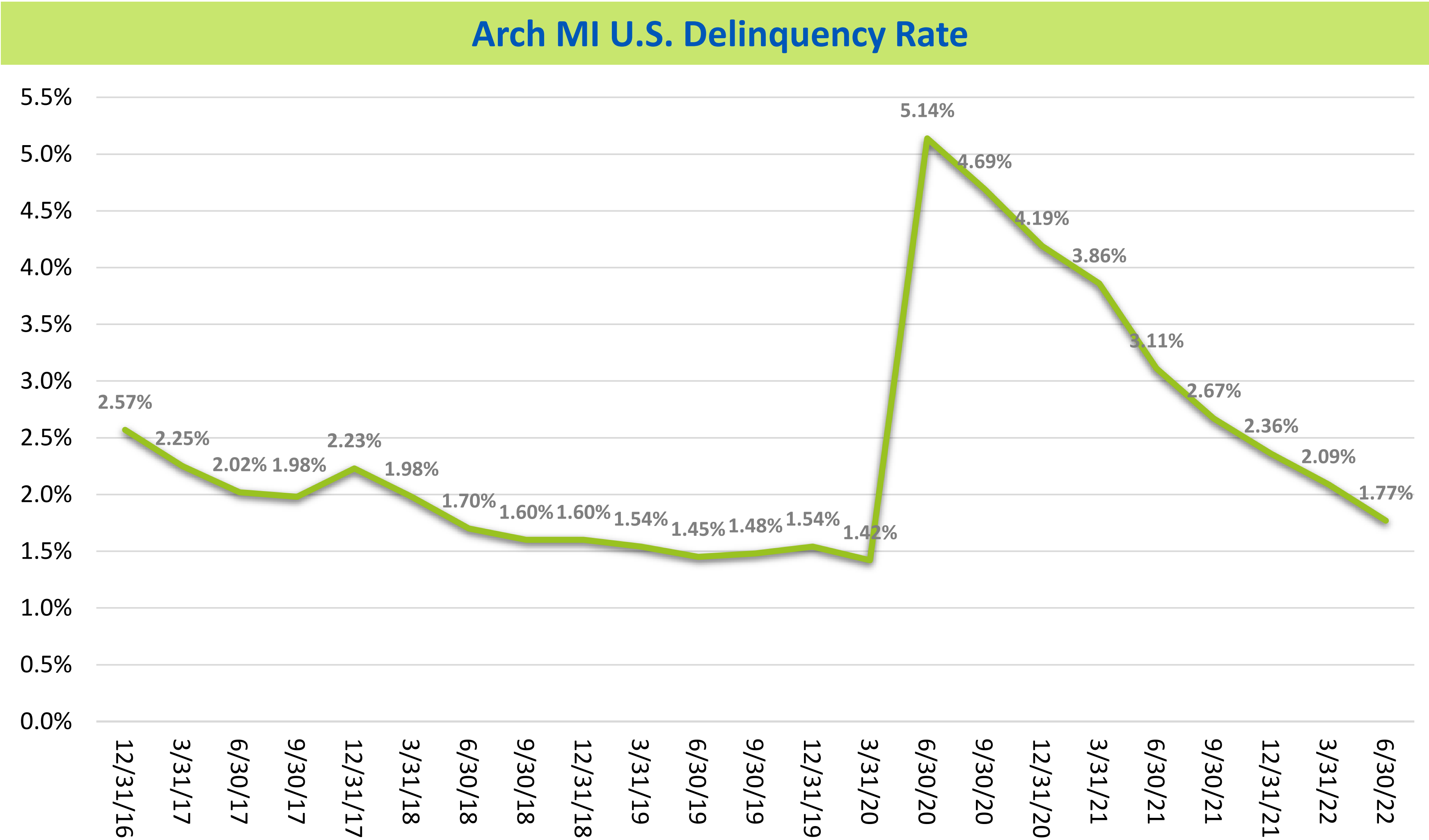
Mortgage Segment: Earnings Power

Underwriting Income and Net Premiums Earned ($M)*



*Trailing twelve months ended June 30, 2022 for 2Q22.

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

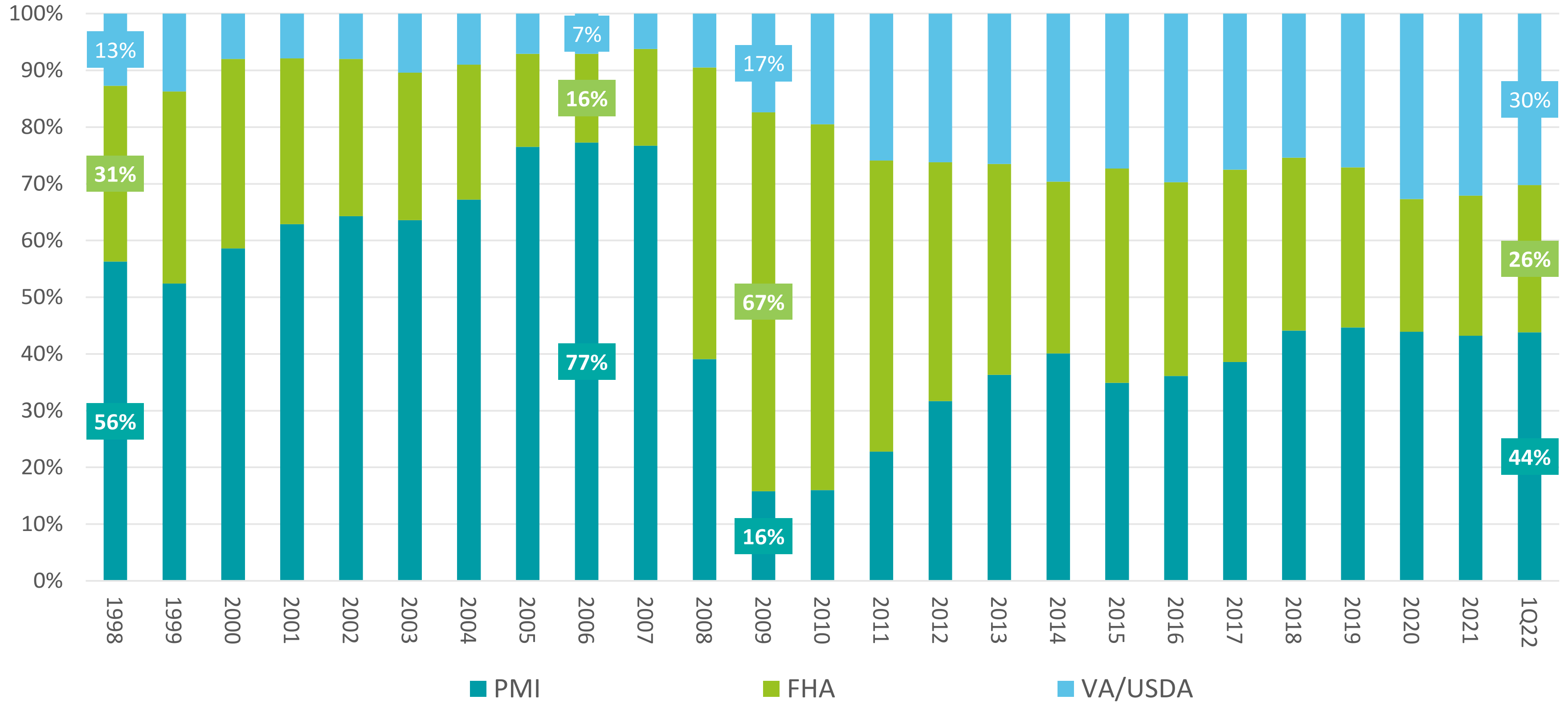


As of 6/30/2022, PMIERs sufficiency ratio: 219% – Calculated as available assets divided by required assets as defined within PMIERs; $2.05 billion of excess available assets.

Private Mortgage Insurance vs FHA/VA Origination

PMIs' share of insured originations has been stable in recent years.

Market Shares of Insured Originations



Source: Inside Mortgage Finance

Arch MI US – Bellemeade Reinsurance Coverage by Vintage

As of June 30, 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	$2,621	$ -	$2,621	68.6%	$1,798
2013	927	-	927	3.3%	30
2014	1,135	519	616	1.0%	6
2015	1,930	810	1,120	0.7%	8
2016	3,180	833	2,347	97.3%	2,283
2017	2,842	35	2,807	98.6%	2,768
2018	2,926	36	2,890	98.8%	2,856
2019	5,382	57	5,325	93.6%	4,984
2020	18,332	660	17,671	100.0%	17,672
2021	23,852	4,795	19,058	87.3%	16,636
2022	11,131	2,675	8,455	0.0%	-
Total *	**$74,258**	**$10,421**	**$63,838**	**76.8%**	**$49,041**

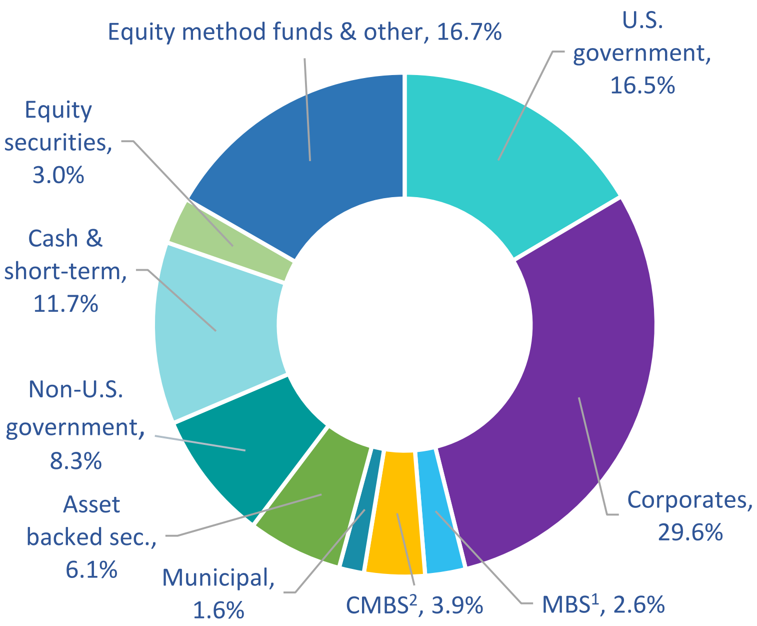
* Numbers may not foot due to rounding.

(1) RIF net of QS and excess of loss reinsurance is $56,529.

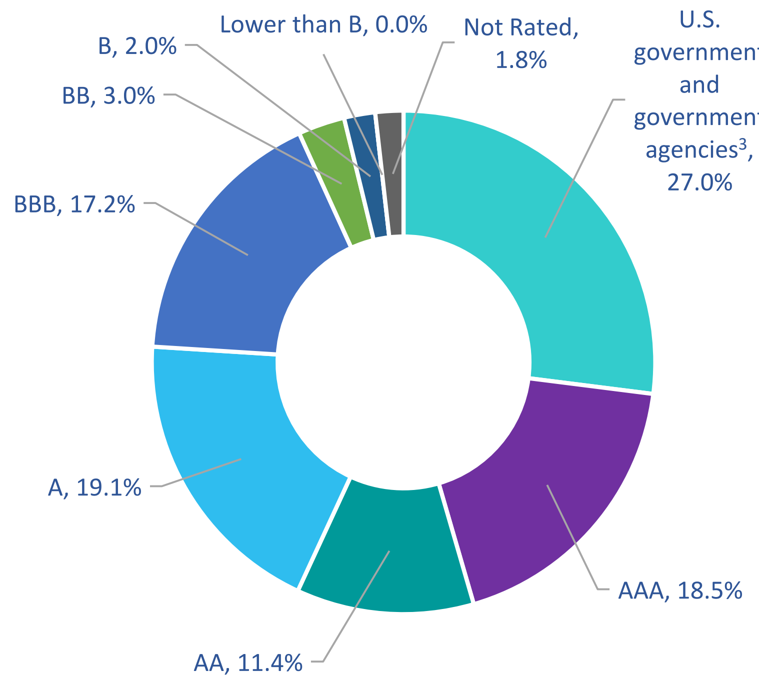
Our Investment Strategy

- 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 - $26.4B



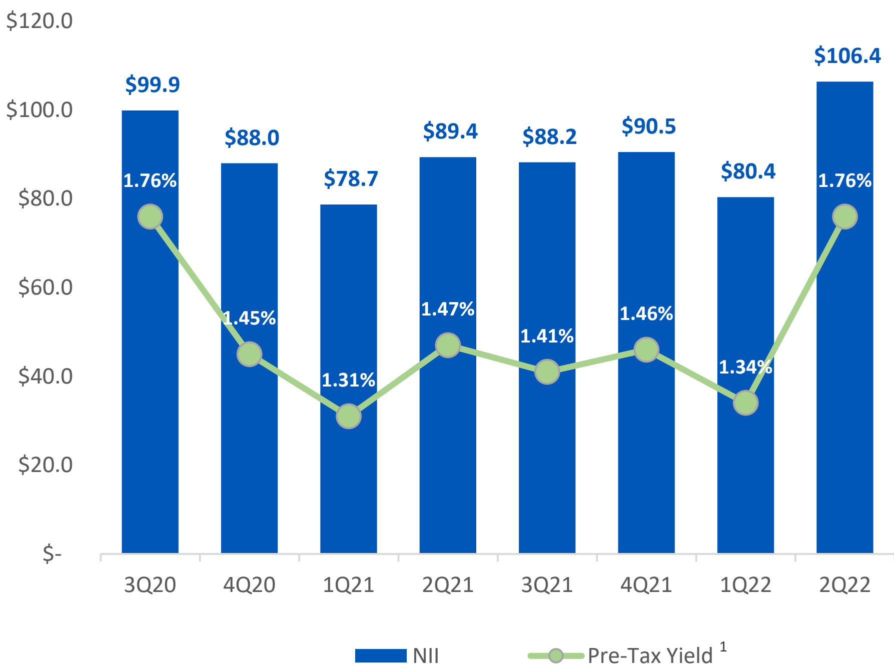
Fixed Maturity by Rating - $18.1B



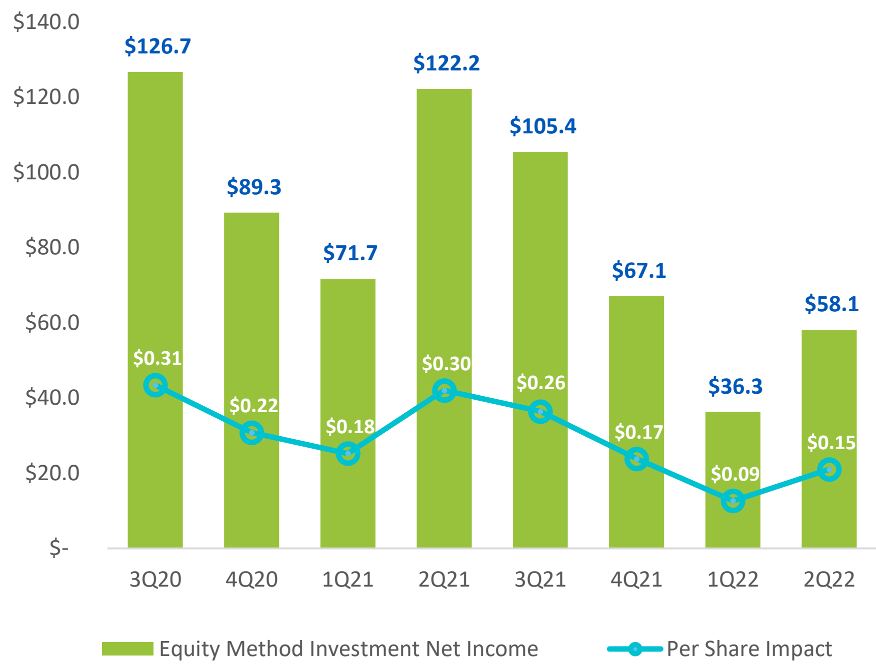
[1] MBS = Mortgage backed securities.
[2] CMBS = Commercial mortgage backed securities.
[3] Includes U.S. government – sponsored agency MBS and agency CMBS.

Investment Highlights

Net Investment Income ($M)[1]



Equity Method Investment Income ($M)[2]



[1] Investment income included as part of operating income. Pre-tax yield presented on an annualized basis and excluding the impact of investments for which returns are not included within investment income, such as investments accounted for using the equity method and certain equities.
[2] Represents 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 – Transparency and Disclosures

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

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.

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

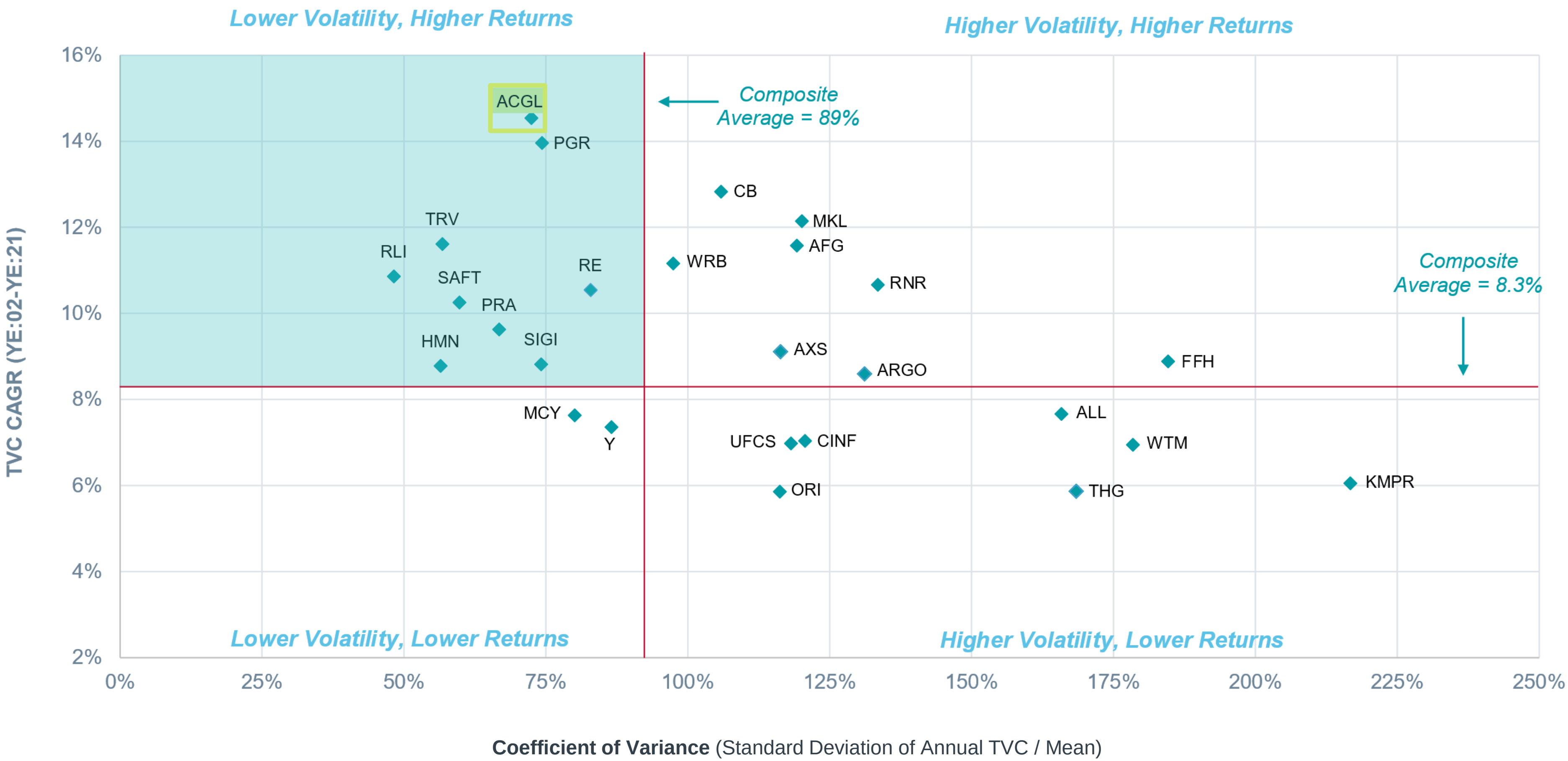
- Minimize investment risk
- Cautious reserving philosophy
- Low financial leverage and strong liquidity

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 – 12/31/2021



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%.

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