Investor Presentation

2020 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 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 integrate the businesses we have 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.

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

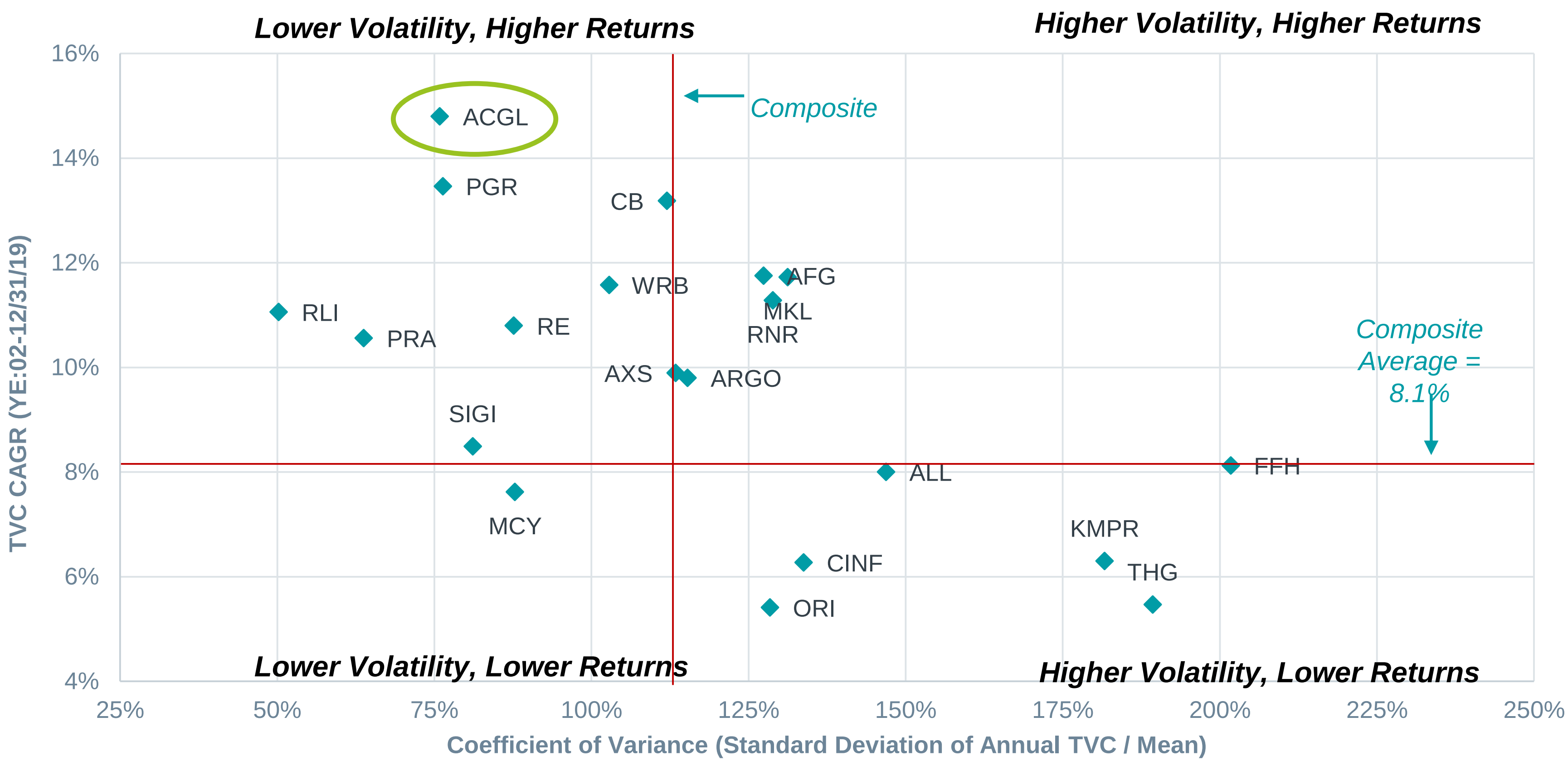
Focus on Underwriting

- 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

Total Value Creation vs. Coefficient of Variation - Total Composite (12/31/02 - 12/31/19)



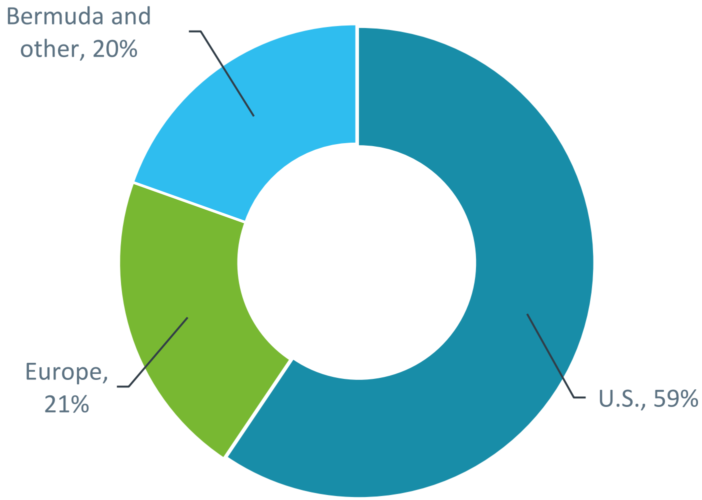
Source: Dowling & Partners Analysis
Dowling's P&C Industry Composite of 25 Companies
Excludes CNA (3.2%, 377%), Hartford (2.4%, 431%), MGIC (-4.5%, 618%), Radian (-2.0%, 695%) as coefficient of variation exceeds 250%;
TVC is tangible book value per share growth plus accumulated dividends

Specialty (Re)insurance Strategy

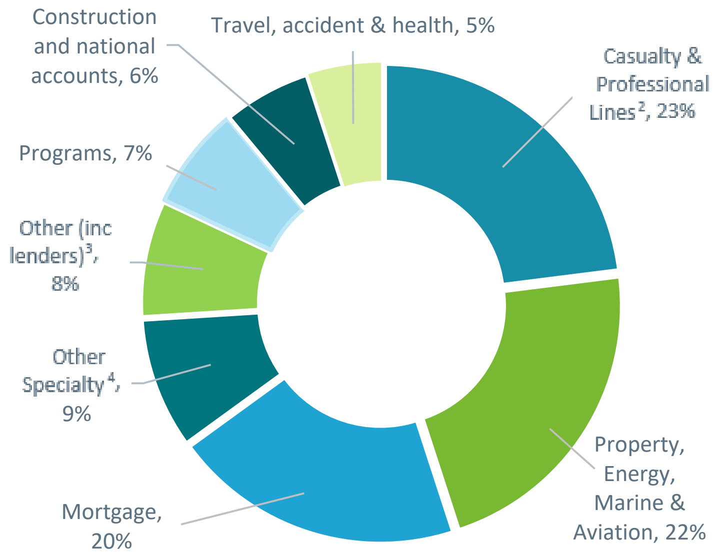
Arch operates leading Specialty P&C and Mortgage Insurance businesses across a wide range of geographies and products providing meaningful diversification and earnings stability.

Trailing Twelve Months Ended June 30, 2020			
Gross premiums written ($8.8B)	49% insurance	34% reinsurance	17% mortgage
Net premiums written ($6.3B)	46% insurance	34% reinsurance	20% mortgage

Underwriting Location[1]



Line of Business[1]



[1] Based on net premiums written, excluding amounts attributable to the 'other' segment (Watford)
[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

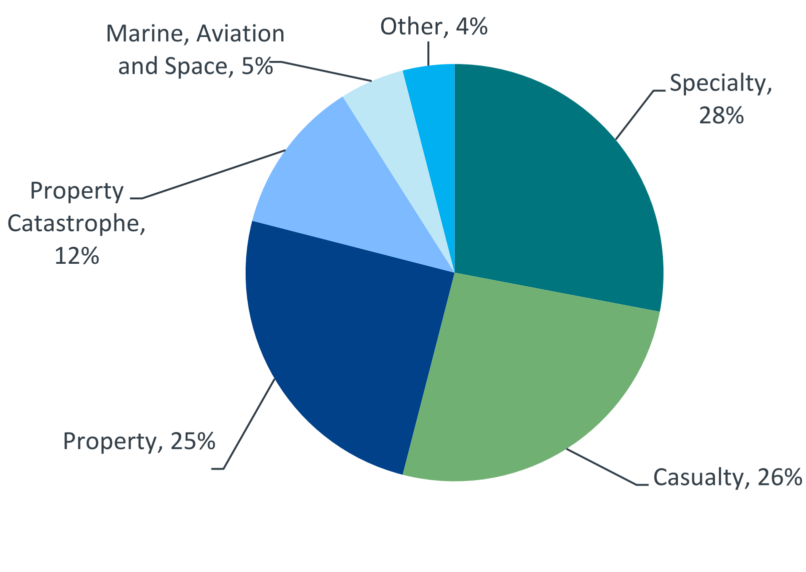
Property Casualty Segments

Strong Underwriting and Risk Management Culture

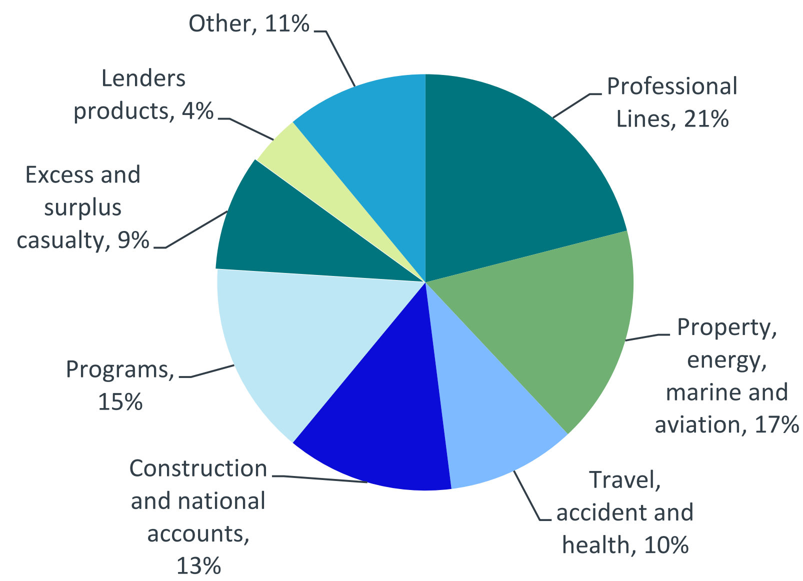
- Talent intensive platform creates resiliency through market cycle.
- Manage the cycle by allocating capital to those lines with better expected returns.
- Diversified by lines of business and geography.
- In primary insurance, focus on smaller risks and low limit business produces more predictable and less volatile results over time.

Trailing Twelve Months Ended June 30, 2020

Reinsurance Net Premiums Written $2.1B



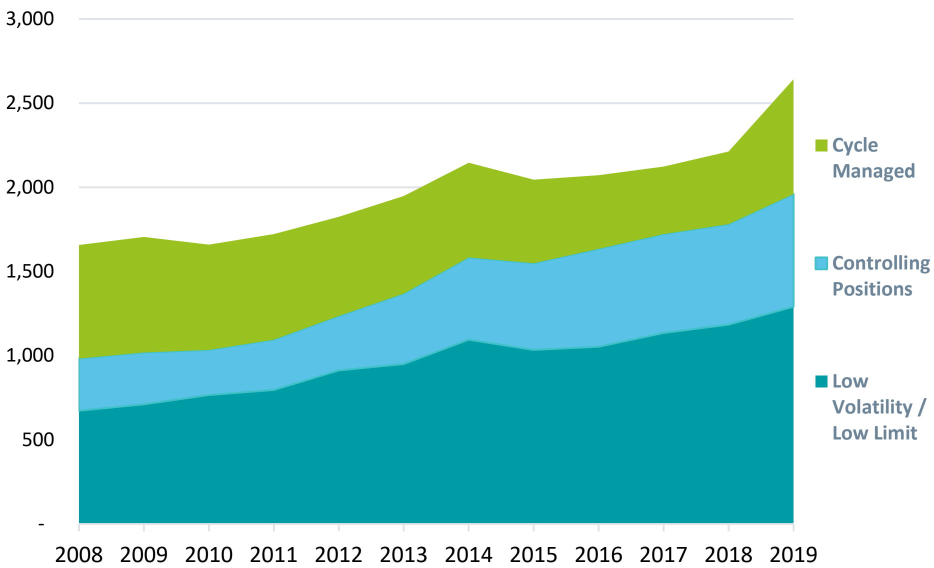
Insurance Net Premiums Written $2.9B



Cycle Management

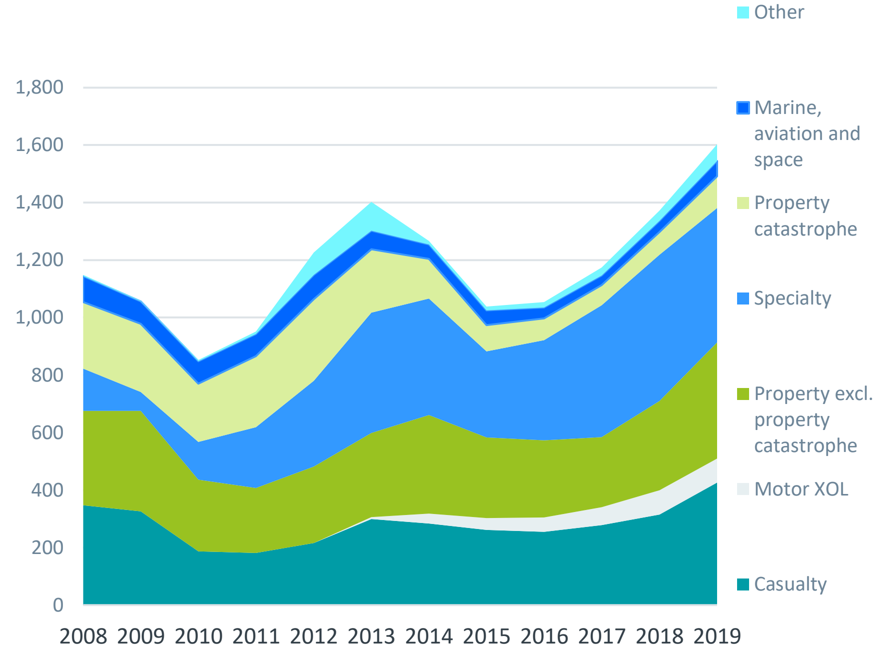
Insurance Segment

Calendar Year Net Premiums Written ($M)



Reinsurance Segment

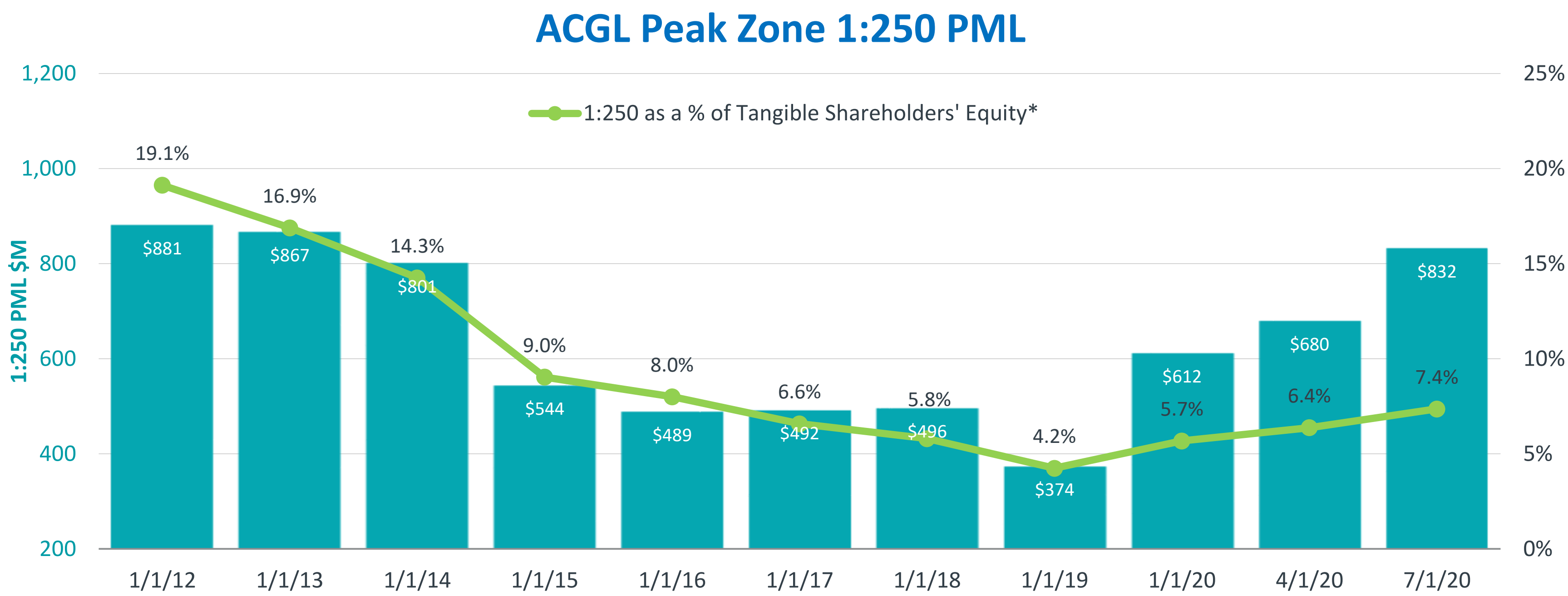
Calendar Year Net Premiums Written by Line ($M)



Insurance Segment**: Low Volatility** includes Programs, A&H, Travel, Contract Binding. **Controlling Positions** includes Construction, Alt Markets, National Accts, Surety. **Cycle Managed** includes Property, Marine, Offshore, Casualty, High Capacity EA, Onshore Energy, Med Mal.
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.

Catastrophe Risk – 1:250 Year Peak Zone

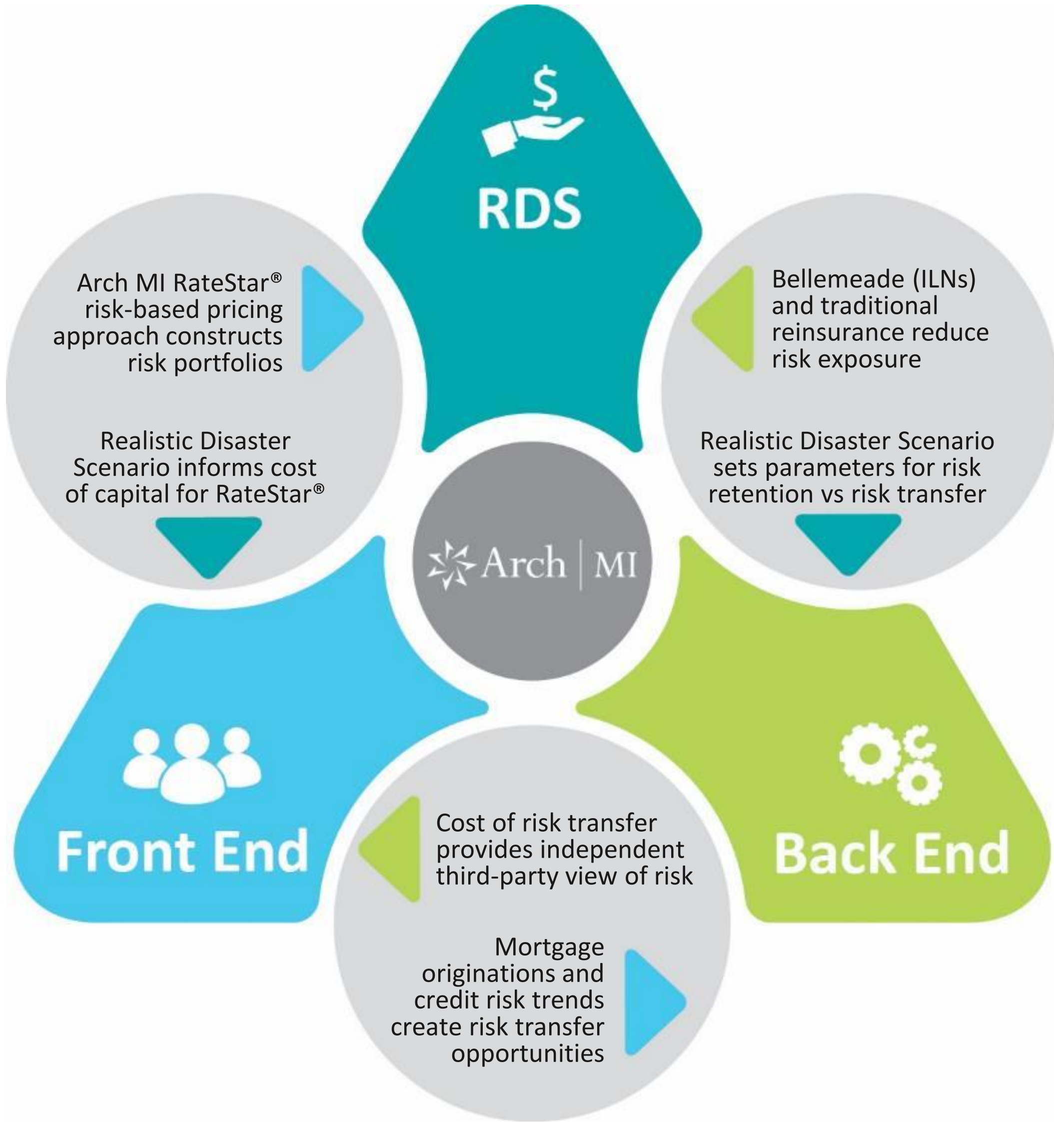
ACGL Peak Zone 1:250 PML



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

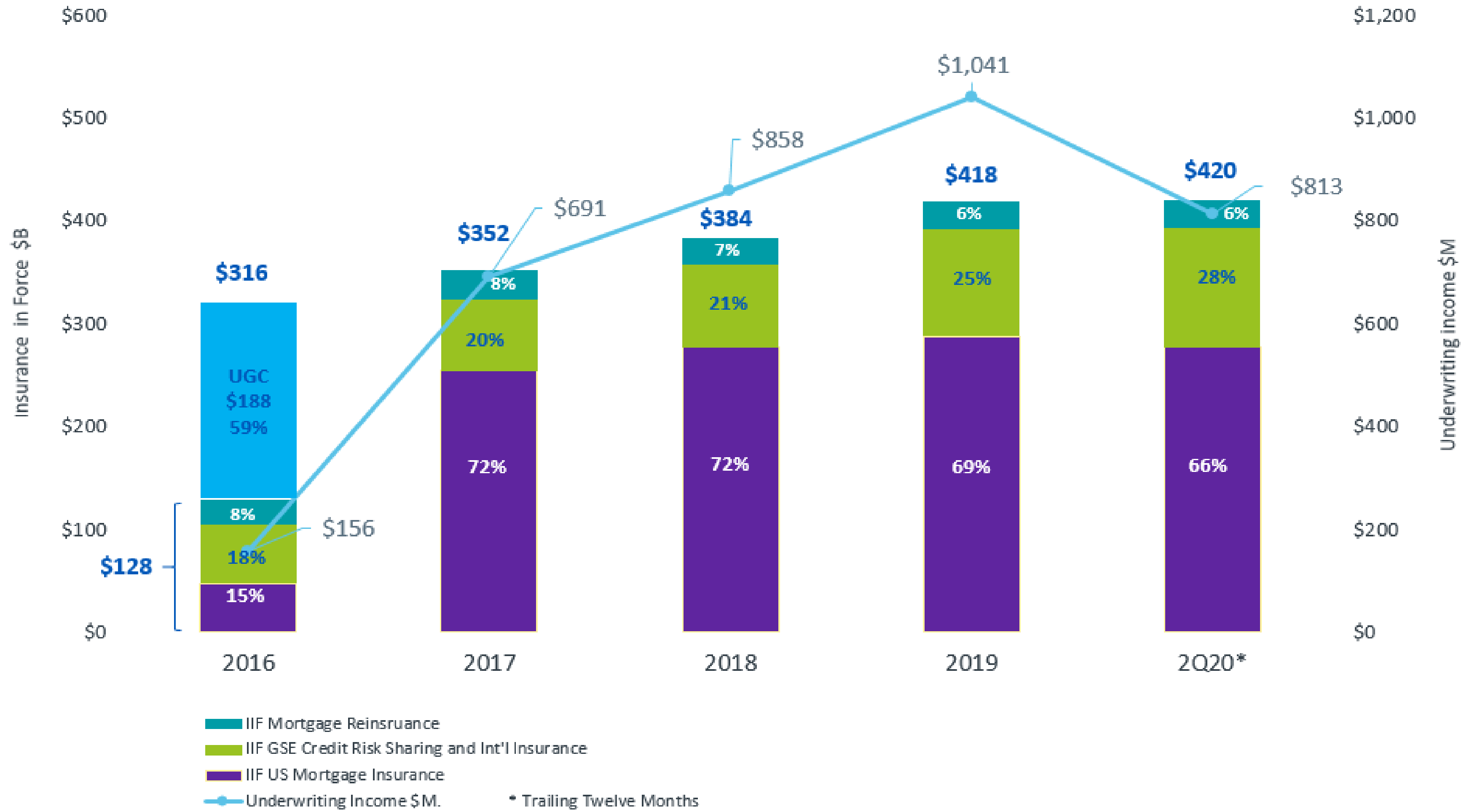
Differentiated Business Model

- 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.



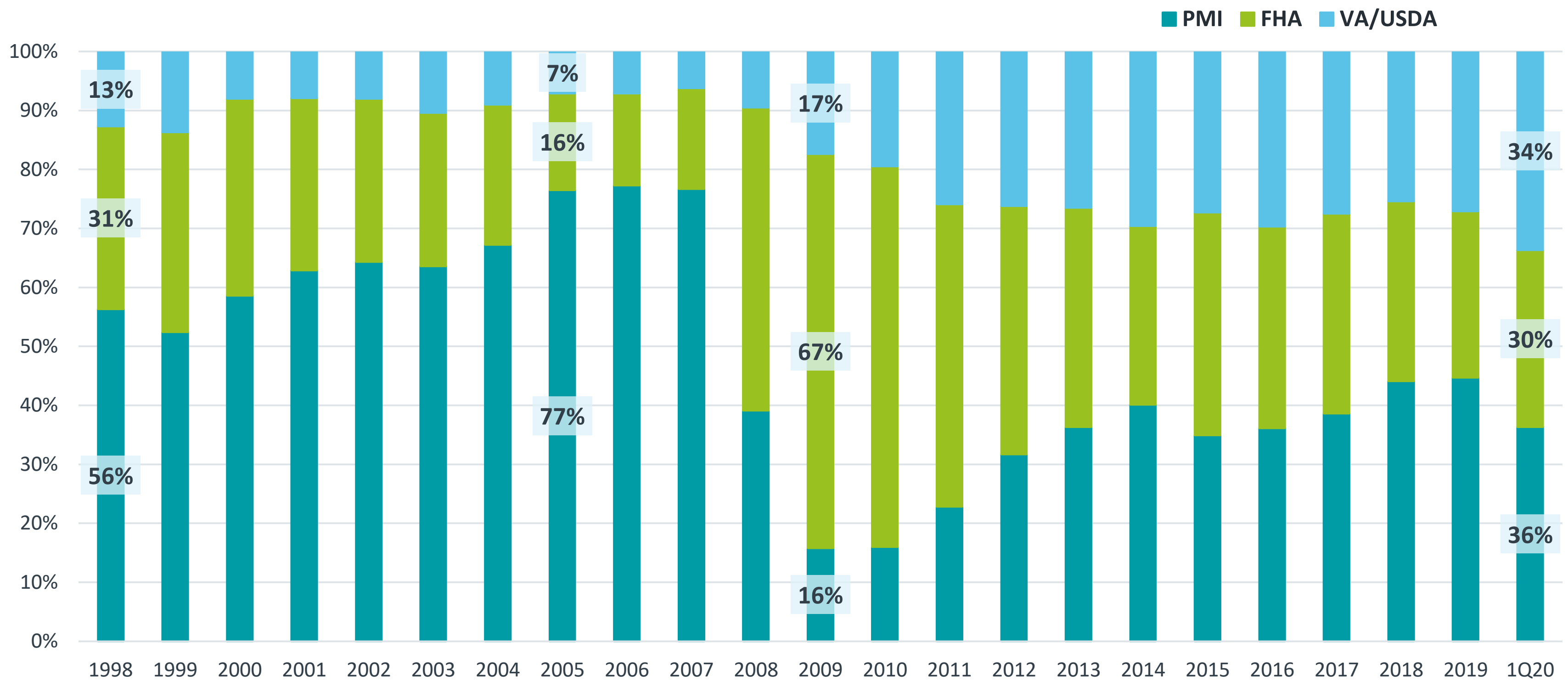
Mortgage Segment

Insurance In Force (IIF) and Underwriting Income



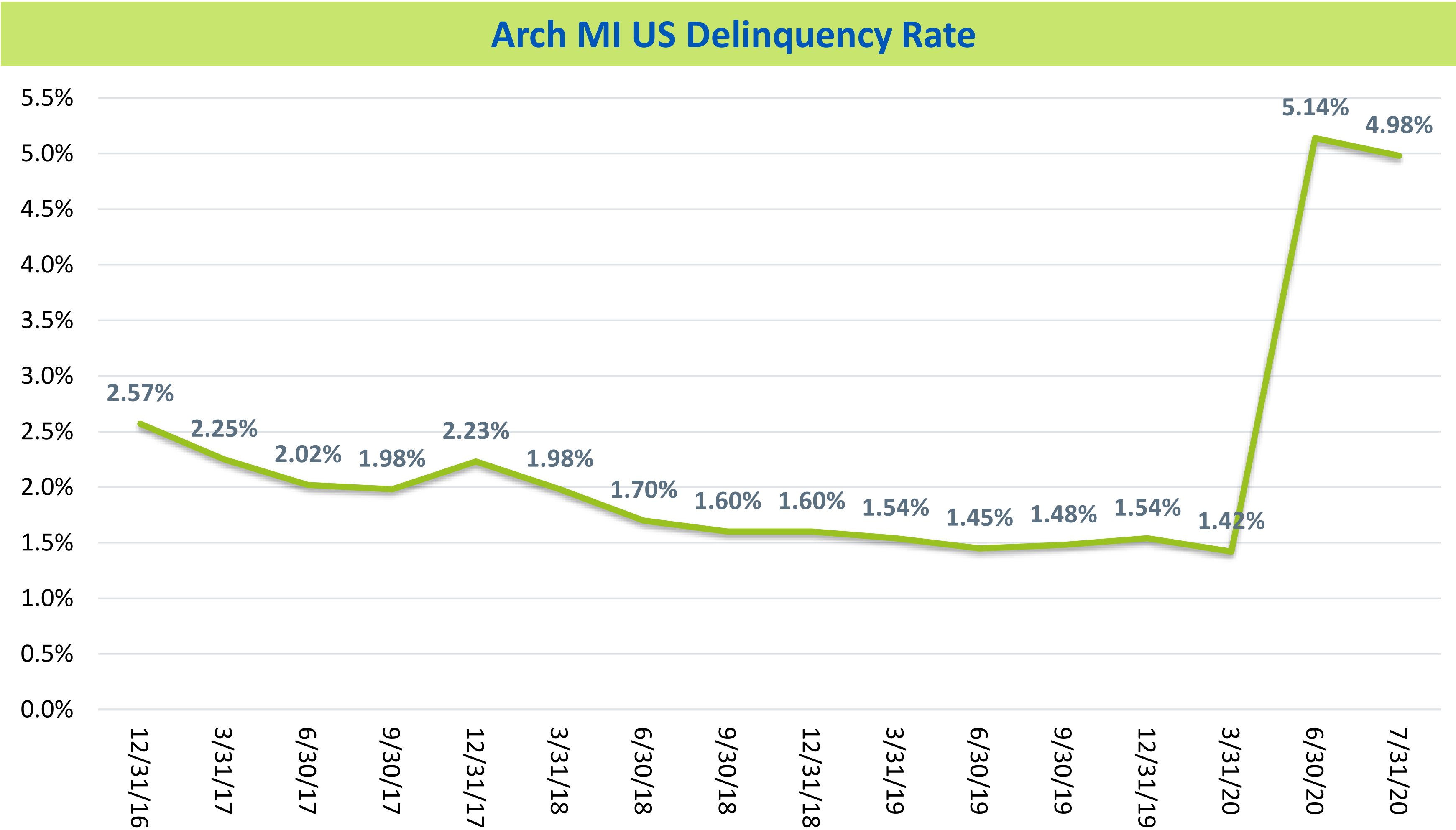
FHA/VA's Share of the Insured Mortgage Market has Declined since 2010

Market Shares of Insured Originations



Source: Inside Mortgage Finance

Arch MI US Delinquency Rate



As of 6/30/2020, PMIERs sufficiency ratio: 161% – Calculated as available assets divided by required assets as defined within PMIERs; $1.35 billion of excess available assets.

Arch MI US – Bellemeade Reinsurance Coverage by Deal

June 30, 2020 ($ in millions)	Bellemeade Re Insurance-Linked Notes Key Metrics (1) *								
	2017-1	2018-1	2018-2	2018-3	2019-1	2019-2	2019-3	2019-4	2020-1 (8)(9)
Coverage dates for policies issued between (2)	**1/17-6/17**	**7/17-12/17**	**4/13-12/15**	**1/18-6/18**	**2005-2008 (3)**	**7/18-12/18**	**2016**	**1/19-6/19**	**7/19-12/19**
Initial Risk in Force	7,362	7,489	12,809	7,970	5,944	8,872	9,284	7,216	10,571
Current Risk in force	3,988	4,784	7,013	4,657	3,807	5,077	6,536	5,265	10,140
Initial coverage at issuance date	368	374	653	506	342	621	701	577	529
Current coverage	146	250	273	303	219	398	528	469	529
Arch's retention layer	166	169	352	179	208	222	232	162	793
Claims paid under Arch's retention layer	4	2	4	2	11	1	1	-	-
Incurred losses under Arch's retention layer	26	29	32	30	66	32	31	22	12
Arch remaining retention, net of incurred losses	140	140	320	149	142	190	201	140	781
Delinquency % (4)	6.14%	6.41%	3.77%	6.93%	9.45%	7.58%	5.45%	6.16%	2.06%
Delinquency trigger % (5)	5.00%	5.00%	4.00%	5.00%	8.00%	5.00%	4.00%	5.00%	N/A
Initial Attachment % (cumulative losses as % of RIF)	2.25%	2.25%	2.75%	2.25%	3.50%	2.50%	2.50%	2.25%	7.50%
Initial Detachment % (cumulative losses as % of RIF)	7.25%	7.25%	7.85%	8.60%	9.25%	9.50%	10.05%	10.25%	12.50%
Current Attachment % (6) (cumulative losses as % of RIF)	4.15%	3.52%	5.02%	3.85%	5.47%	4.37%	3.55%	3.08%	7.82%
Current Detachment % (7) (cumulative losses as % of RIF)	7.80%	8.75%	8.91%	10.35%	11.23%	12.21%	11.63%	11.99%	13.03%

(1) Through June 30, 2020, notwithstanding the $79M of reinsurance coverage provided directly by a panel of reinsurers mentioned below in Note (8), the Company has entered into various aggregate excess of loss mortgage reinsurance agreements with special purpose reinsurance companies ("SPRs") domiciled in Bermuda (the "Bellemeade Agreements"). 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 primarily issued between 2005-2008 under United Guaranty Residential Insurance Company ("UGRIC"); as well as policies issued through 2015 under both UGRIC and Arch Mortgage Insurance Company (collectively "Arch MI").

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

(5) When delinquency triggers 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 restarts absorbing losses again.

(8) $450 million was directly funded by Bellemeade Re 2020-1 Ltd., with an additional $79 million capacity provided directly to Arch MI by a separate panel of reinsurers. Total initial coverage at issuance date is $529 million.

(9) The Bellemeade 2020-1 delinquency trigger is not driven by a static delinquency percentage, but occurs when the average sixty day plus delinquency amount from the prior three periods is equal to or exceeds 75% of all subordinate tranches.

(10) This information regarding delinquencies and cures is reported to Arch MI 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.

* Numbers may not foot due to rounding

Arch MI US – Bellemeade Reinsurance Coverage by Vintage

As of June 30, 2020 ($ 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
2010 and prior	3,555	-	3,555	84.8%	3,016
2011	369	-	369	34.5%	127
2012	1,418	-	1,418	34.4%	487
2013	2,803	-	2,803	85.8%	2,406
2014	3,068	1,366	1,703	98.4%	1,676
2015	5,578	2,439	3,140	99.0%	3,107
2016	8,950	2,347	6,603	98.7%	6,519
2017	9,031	178	8,854	99.9%	8,842
2018	9,969	166	9,803	99.5%	9,755
2019	15,683	165	15,519	98.8%	15,330
2020	9,776	-	9,776	0.0%	-
Total *	**70,200**	**6,659**	**63,543**	**80.7%**	**51,265**

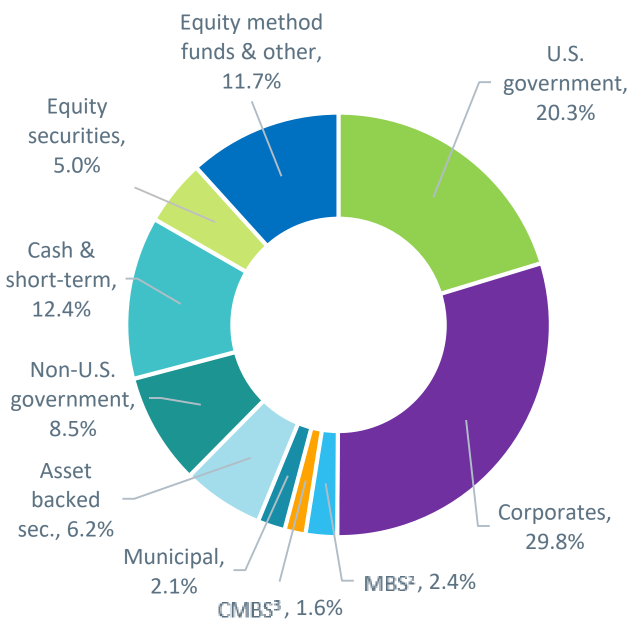
[1] RIF net of QS and excess of loss reinsurance is $57,258.

* Numbers may not foot due to rounding

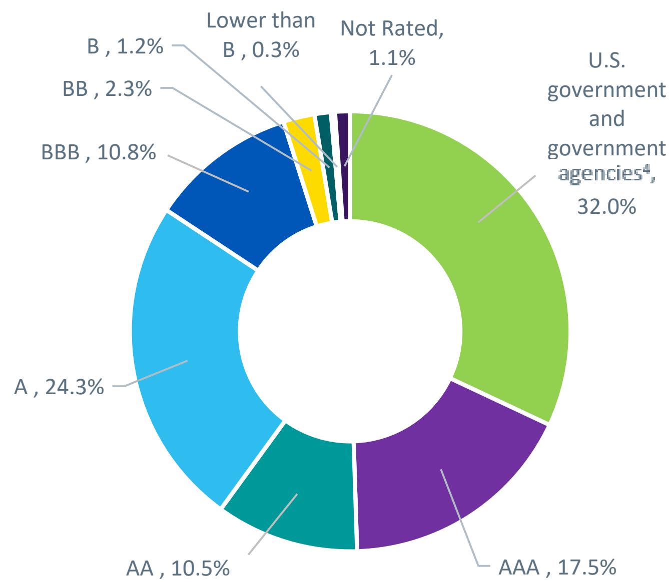
Our Investment Strategy

- 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.

Investment by Type[1]



Fixed Maturity by Rating[1]



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

Our Approach to Environmental, Social & Governance

At Arch, we believe that it is our responsibility to do the right thing for our employees, our clients, our shareholders and our communities. Our Sustainability Report and SASB disclosure are available on the Investor Relations page of ACGL's website at www.archcapgroup.com. We acknowledge this responsibility to our stakeholders in these key areas:

Community Impact

Arch is committed to making a positive impact on the communities where our employees live and work through our matching gift program, corporate giving and employee volunteerism. We help employees amplify their community impact by providing our worldwide employees with a 1:1 match on their donations to recognized charitable organizations. In addition, in response to COVID-19, Arch temporarily enhanced its corporate match for employees' charitable contributions from 1:1 to 2:1 to strengthen employees' ability to impact the charities most meaningful to them.

Environmental Stewardship: Our Environmental Policy

We understand the risks that environmental challenges present to people and communities. As environmental stewards, we take an active role in reducing our environmental impact and look for cost-effective ways to protect and conserve natural resources. We are committed to long-term, sustainable approaches to protecting the environment. 22% of our offices globally are located in certified LEEDs buildings and we have prioritized looking for new office space in LEED-certified and Energy Star® buildings when considering new leaseholds. We are currently measuring our own greenhouse gas footprint so that we can take steps to reduce or offset our emissions.

Responsible Investing

We believe that the incorporation of material, non-financial factors into investment selection and risk management has the potential to enhance long-term investment returns. We use Environmental, Social & Governance (ESG) factors with respect to our directly managed assets and with respect to assets managed for us by third-party managers. We measure our exposure to ESG risks at both individual asset classes and total portfolio levels.

Our Approach to ESG, continued

Investing in our People

We create a workplace culture where all employees are treated with dignity and respect, and individual differences are valued, all with the goal of securing trust, empowerment and satisfaction for our employees. We foster this culture through our learning and development programs and our competitive compensation and health and welfare programs. The vast majority of our employees continue to work from home in response to COVID-19 pandemic. We extended the U.S. employee medical insurance to cover certain in-network services related to the testing and evaluation of COVID-19 — as well as inpatient treatment. We have also offered webinars to support our people and to help them remain resilient. Additionally, Arch has established an employee assistance fund, “Arch Cares” to provide monetary support to our employees with financial hardships caused by the COVID-19 pandemic.

Diversity and Inclusion

Arch recognizes that bringing together diverse backgrounds and experiences drives innovation and leads to better outcomes for all stakeholders. We seek to foster a culture that embraces diversity and gives our people the opportunity to succeed. This commitment is embedded in our values and contained in our company policies. Earlier this year, 78% of Arch employees participated in our first global employee engagement survey. The results indicated that our people share a bright outlook for our future, with an 84% engagement score (nine points above the industry norm). In June, we recognized Pride Month and hosted webinars about how to become an ally to the LGBTQ+ community. Our new D&I officer has been similarly driving engagement through the expansion of employee networks or ERGs (employee resource groups).

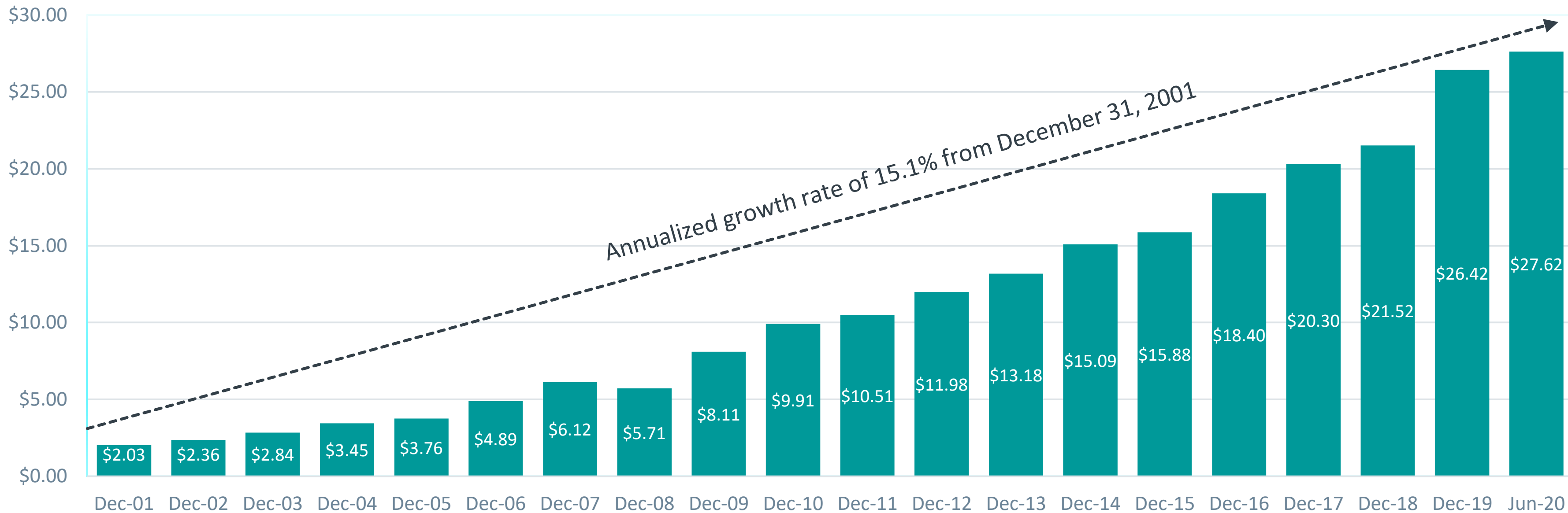
Governance

We maintain the highest standards of corporate governance and ethical conduct. Our Board of Directors oversees the company’s strategic direction and approach to risk management. In selecting Board members, our Nominating and Governance Committee’s objective is to choose individuals with skills and experience who can best represent our shareholders and assist Arch’s management in operating the business. The company endeavors to maintain a Board representing a diverse spectrum of expertise, background, perspective, race, gender and experience.

Data Security

Arch is committed to applying high standards of diligence and security when it comes to handling and protecting personal data and observing data protection laws and regulations. Our commitment is documented in our Privacy and Data Protection Policy.

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	Jun-20
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	$14.7
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%	23.8%

[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.

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