Investor Presentation

2020 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 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 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.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

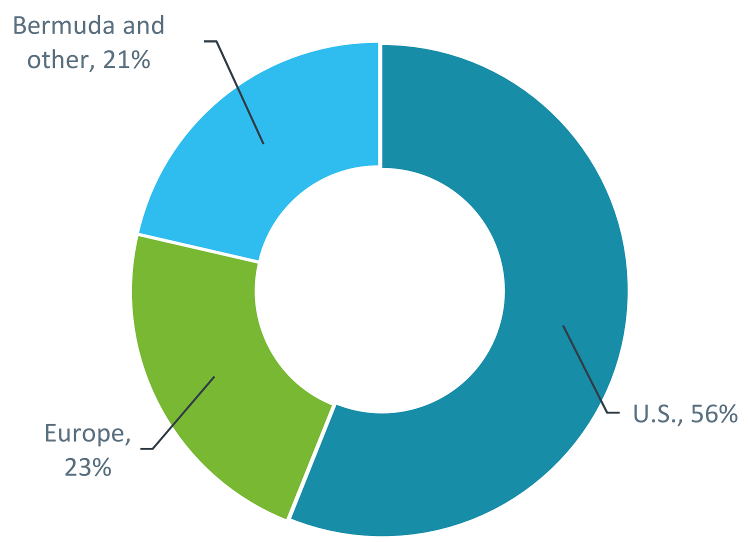
- Minimize investment risk
- Cautious reserving philosophy
- Low financial leverage and strong liquidity

Specialty (Re)insurance Strategy

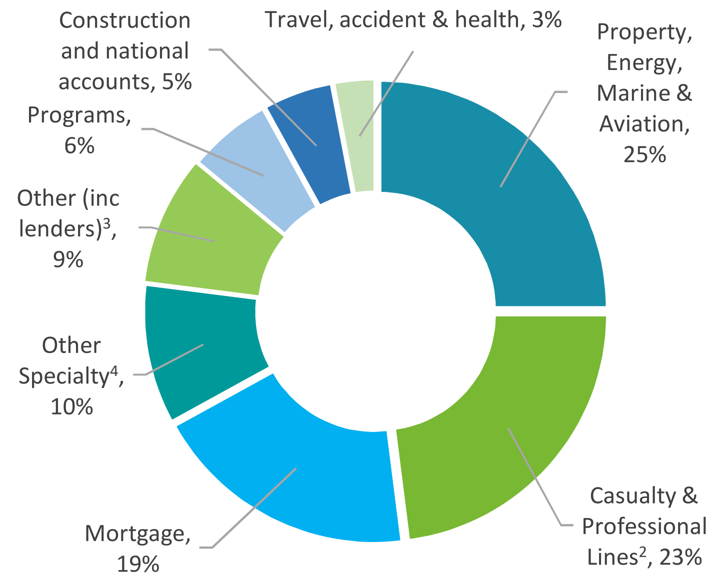
Arch operates leading Specialty P&C and Mortgage Insurance businesses across a wide range of geographies and products providing meaningful diversification and earnings stability.

FY 2020			
Gross premiums written ($9.6B)	49% insurance	36% reinsurance	15% mortgage
Net premiums written ($6.9B)	46% insurance	35% reinsurance	19% mortgage

Underwriting Location[1]



Line of Business[1]

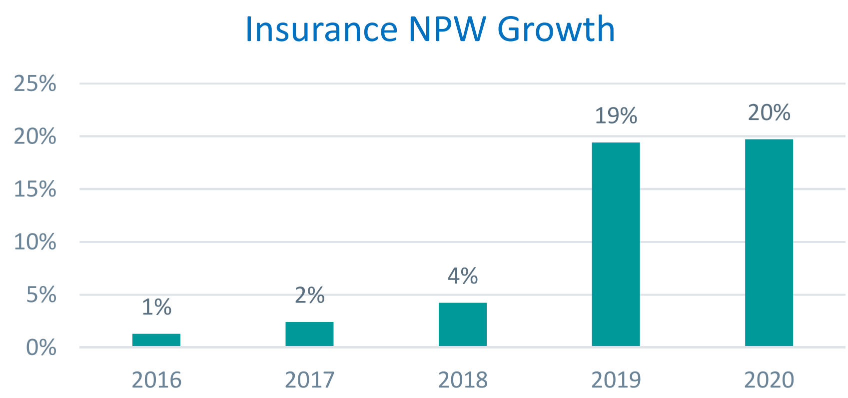


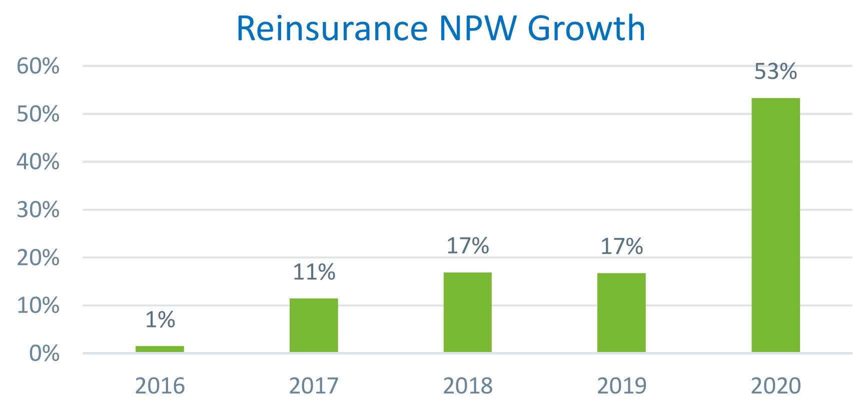
[1] Based on net premiums written, excluding amounts attributable to the 'other' segment (Watford)
[2] Includes casualty, professional liability, executive assurance, healthcare, contract binding, and excess motor
[3] Includes insurance for lenders products, alternative markets, and other insurance and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

Property Casualty Segments

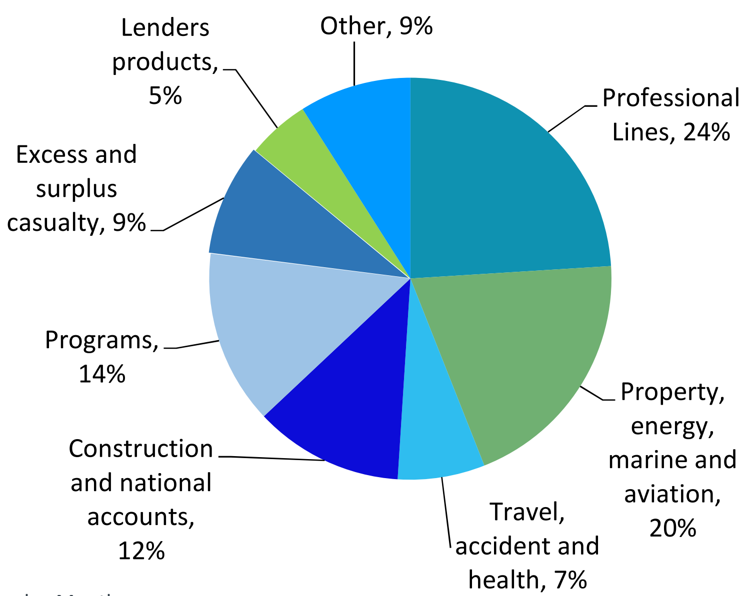
Improving underwriting conditions leading to growth

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

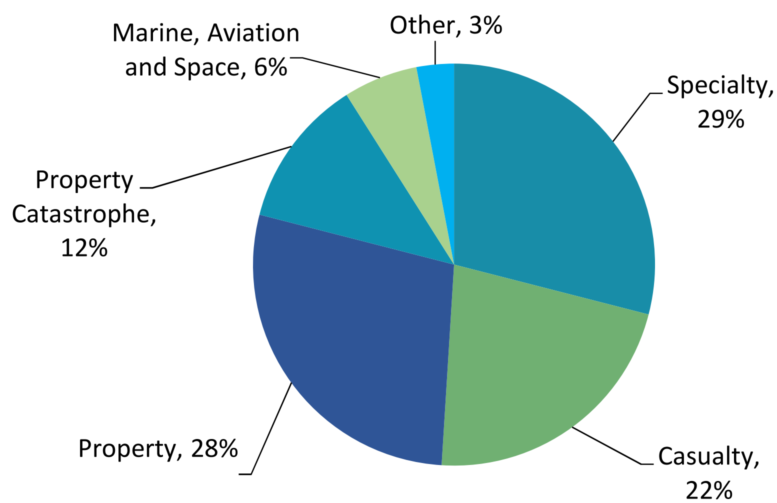




Insurance Net Premiums Written $3.2B*

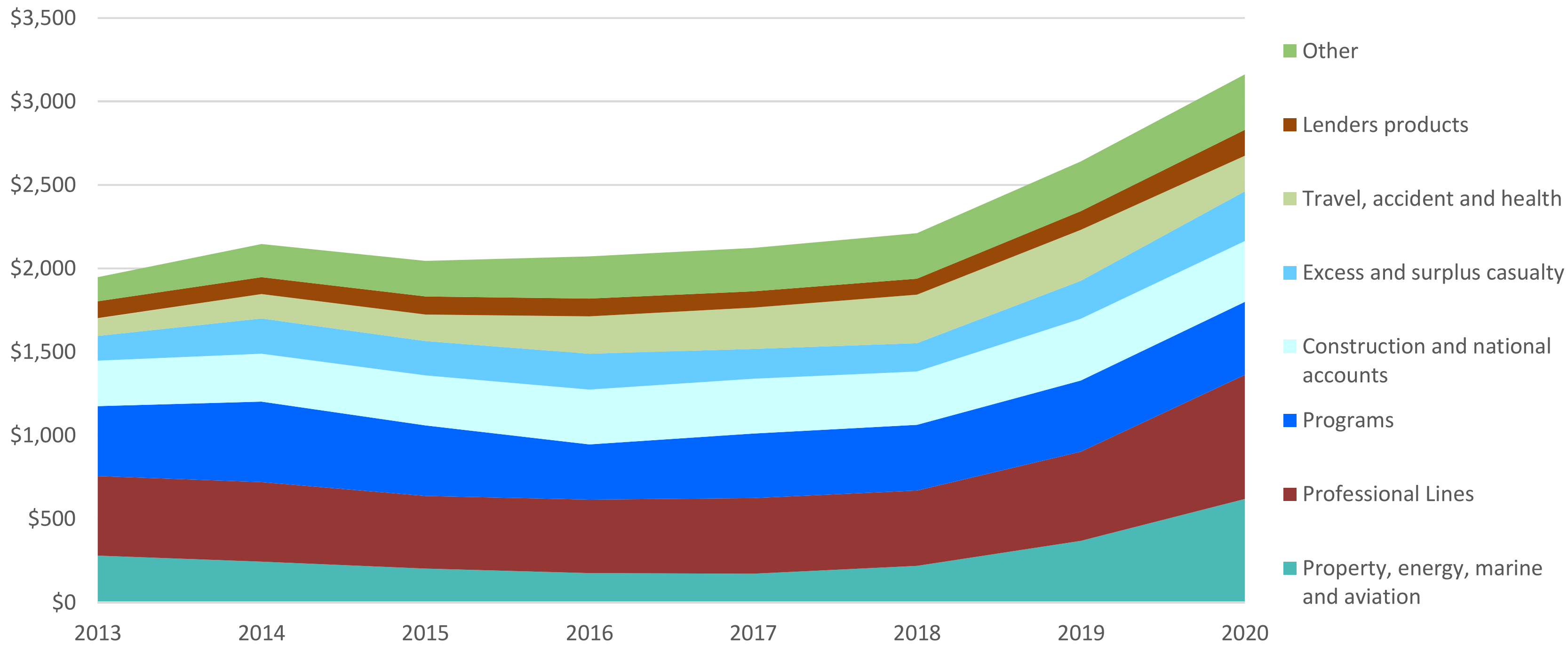


Reinsurance Net Premiums Written $2.5B*



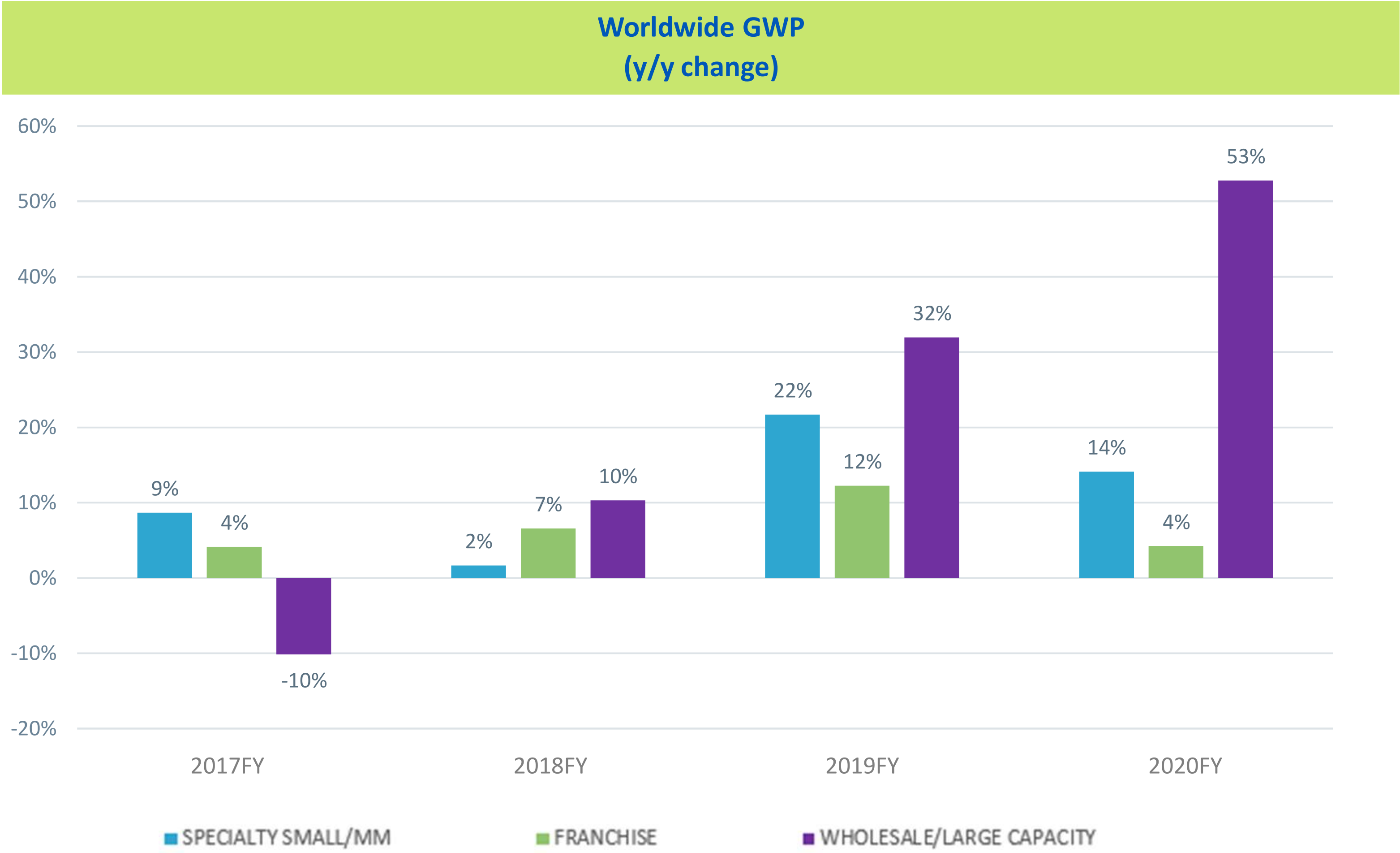
*Trailing Twelve Months

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's compensation and surety business.

Growth Driven by Wholesale/Large capacity (Insurance)

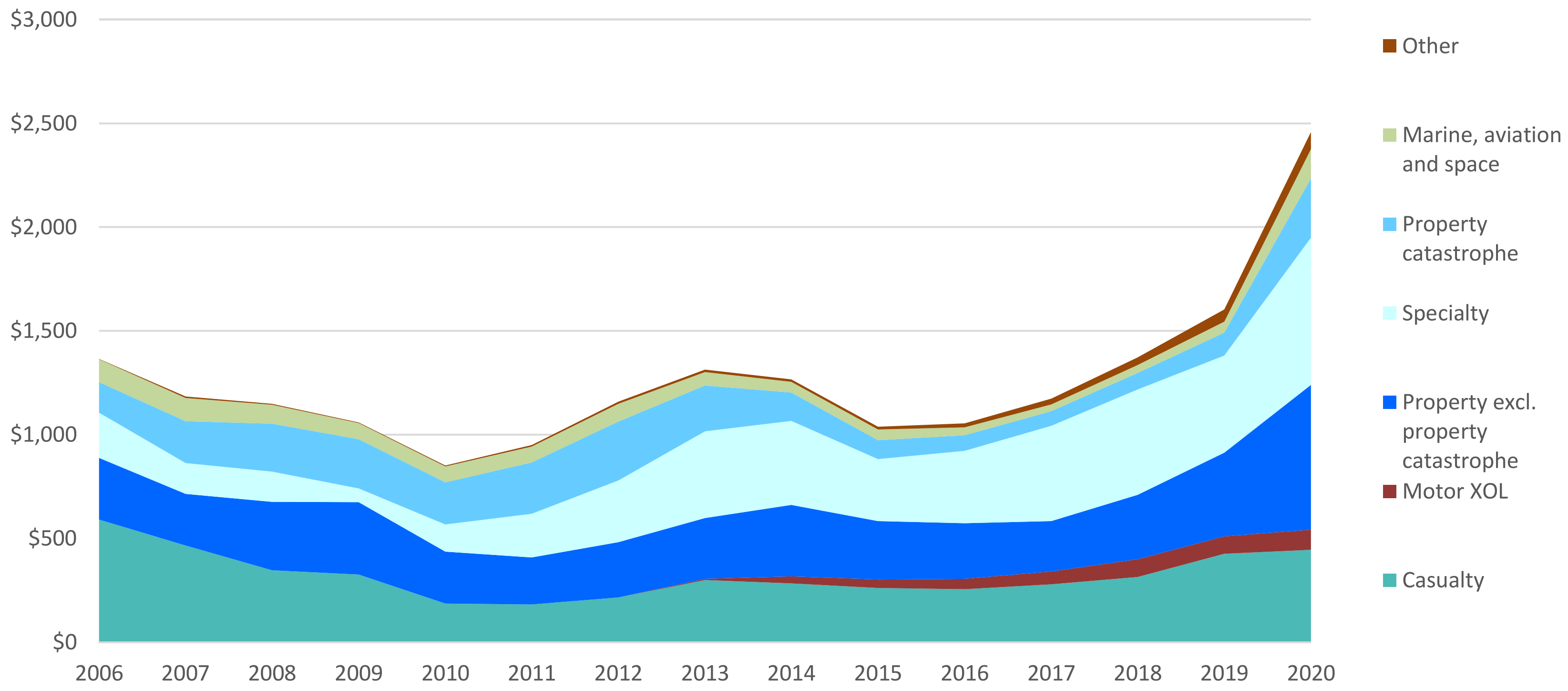


Whole sale/Large Capacity includes property, marine, offshore, casualty, high capacity EA, onshore energy, med mal. **Special Small/Middle Market** includes programs, contract binding, MM casualty, UK Regional, private D&O. **Franchise Positions** includes construction, alt markets, national accts, surety, lenders, travel & accident.

Flexing into a Hardening Market (Reinsurance)

Arch

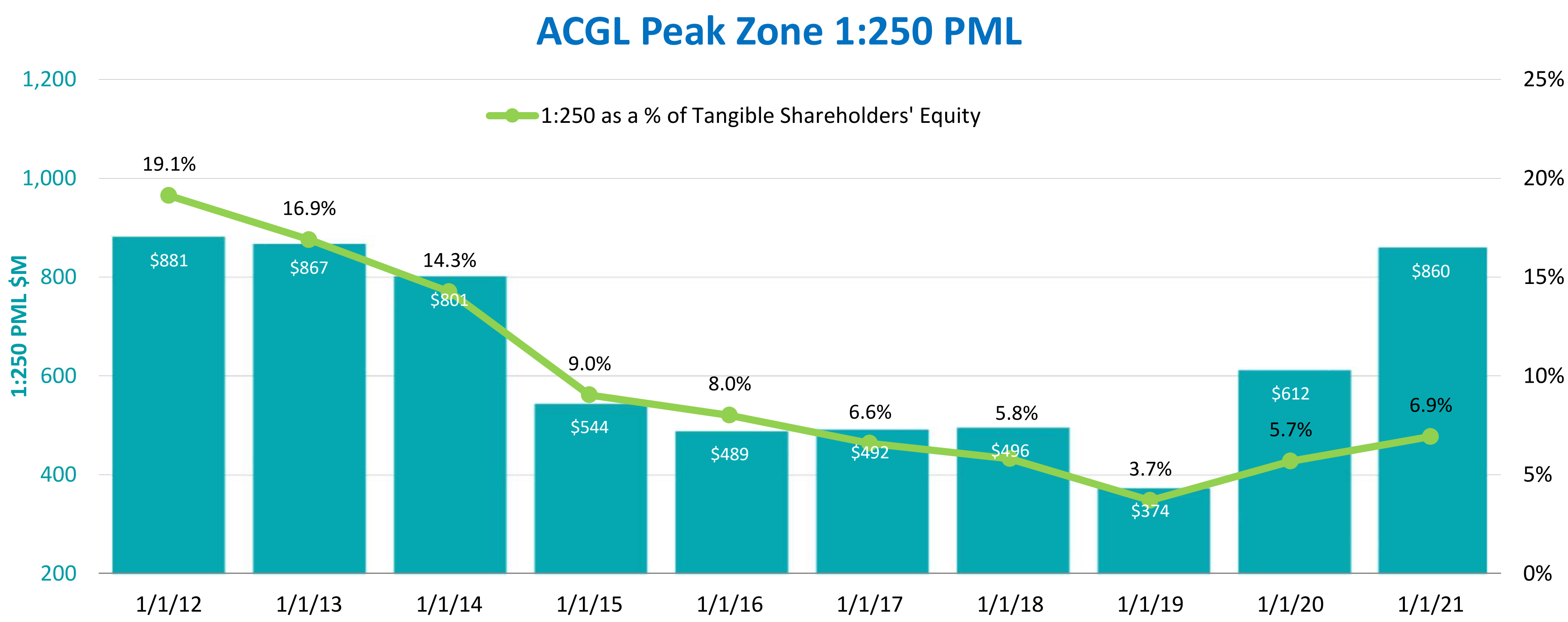
Calendar Year Net Premiums Written by Line ($M)



***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

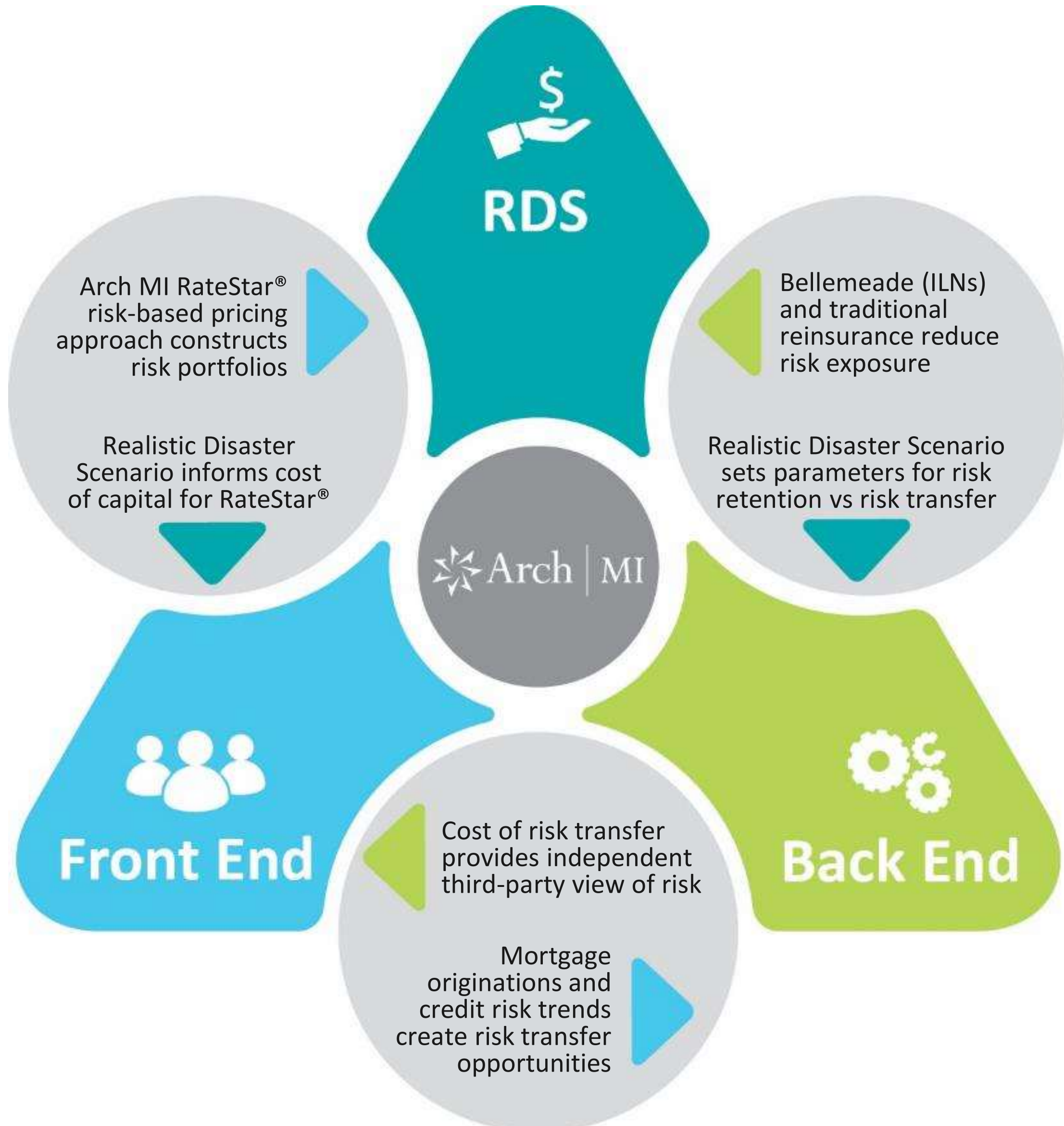
ACGL Peak Zone 1:250 PML



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

Differentiated Business Model

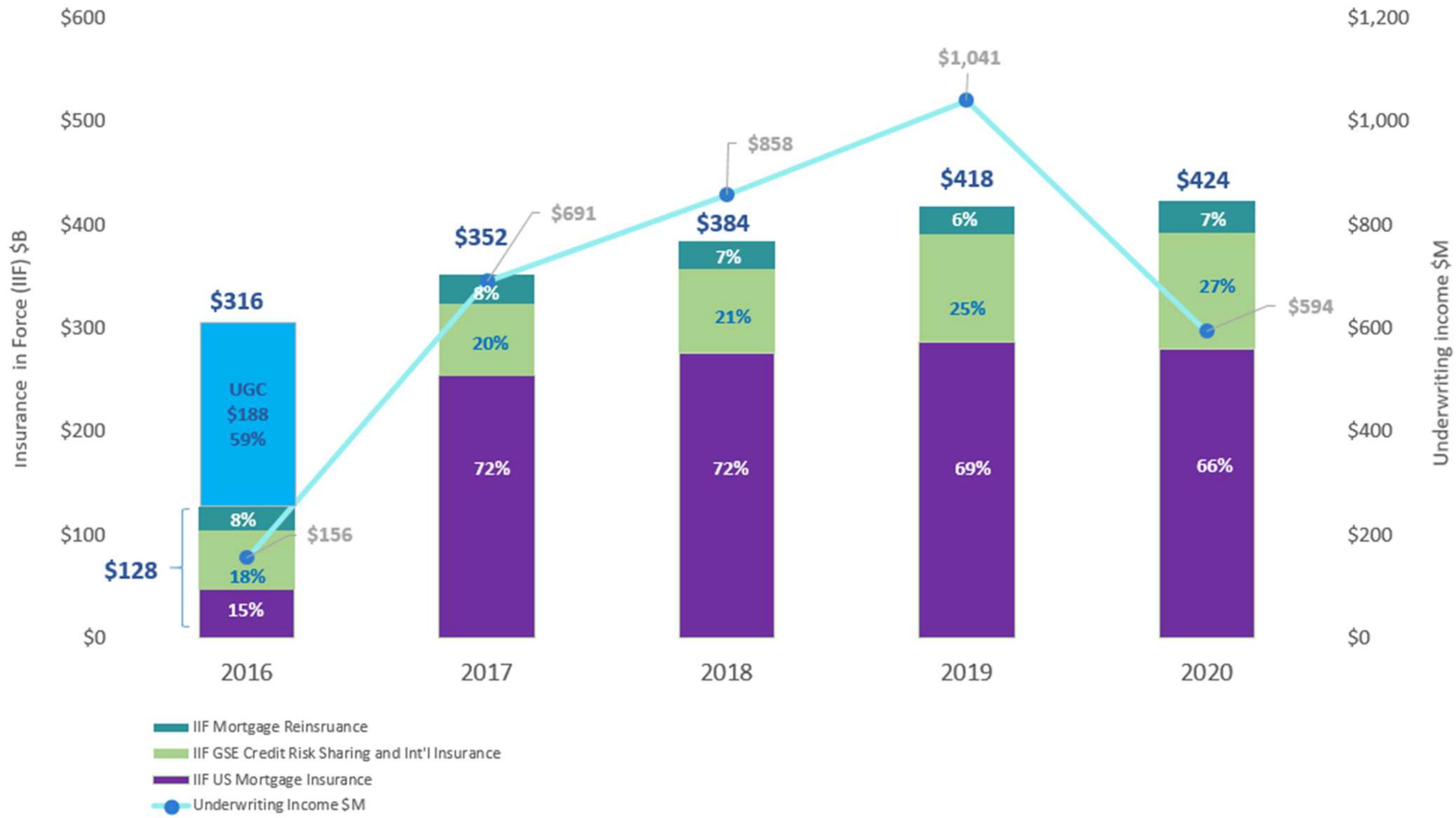
- Arch aggregates risk from diversified sources and then utilizes a variety of tools for managing mortgage and credit risk.
- Arch seeks to limit risk exposure from a severe economic event (RDS) to protect capital.
- Mortgage Segment is positioned for consistent, attractive returns throughout the cycle.



Mortgage Segment

Arch

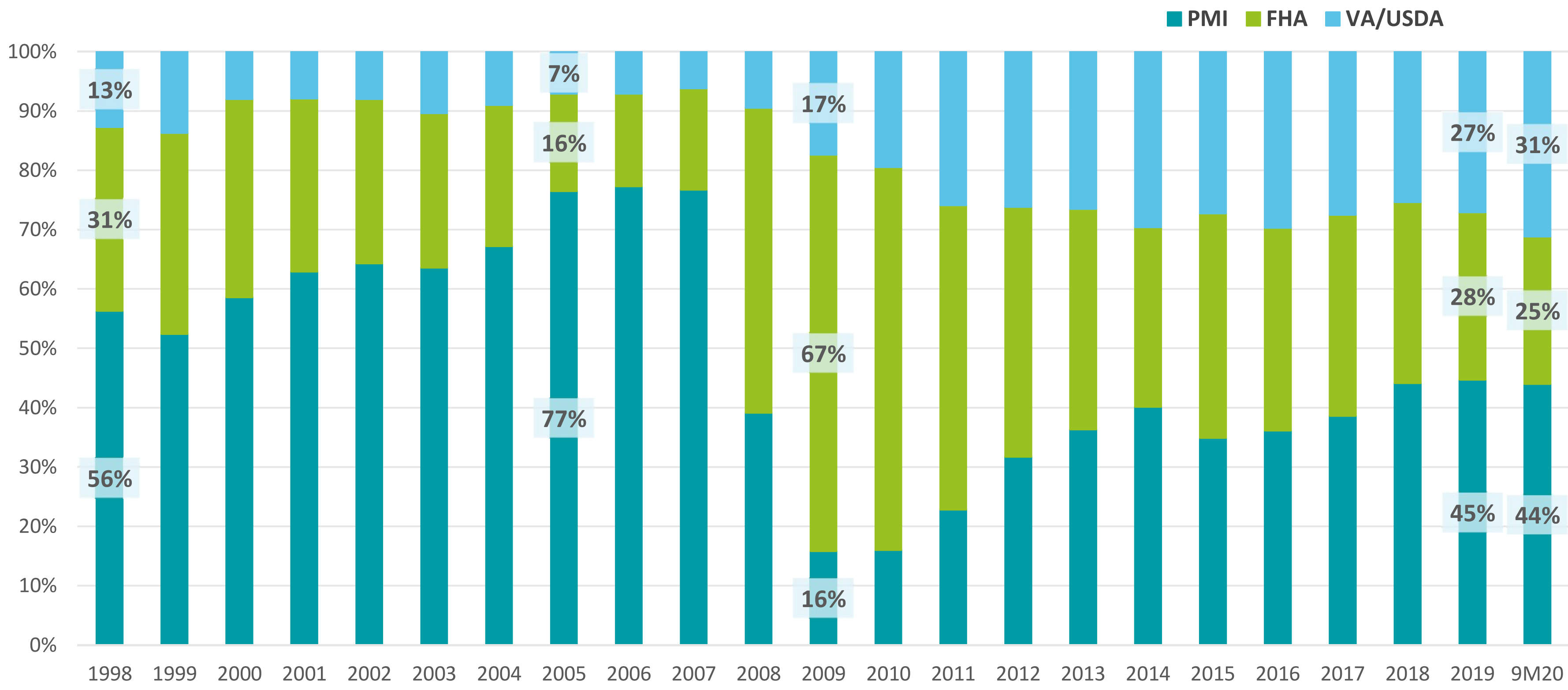
Insurance In Force (IIF) and Underwriting Income



Private Mortgage Insurance vs FHA/VA Origination

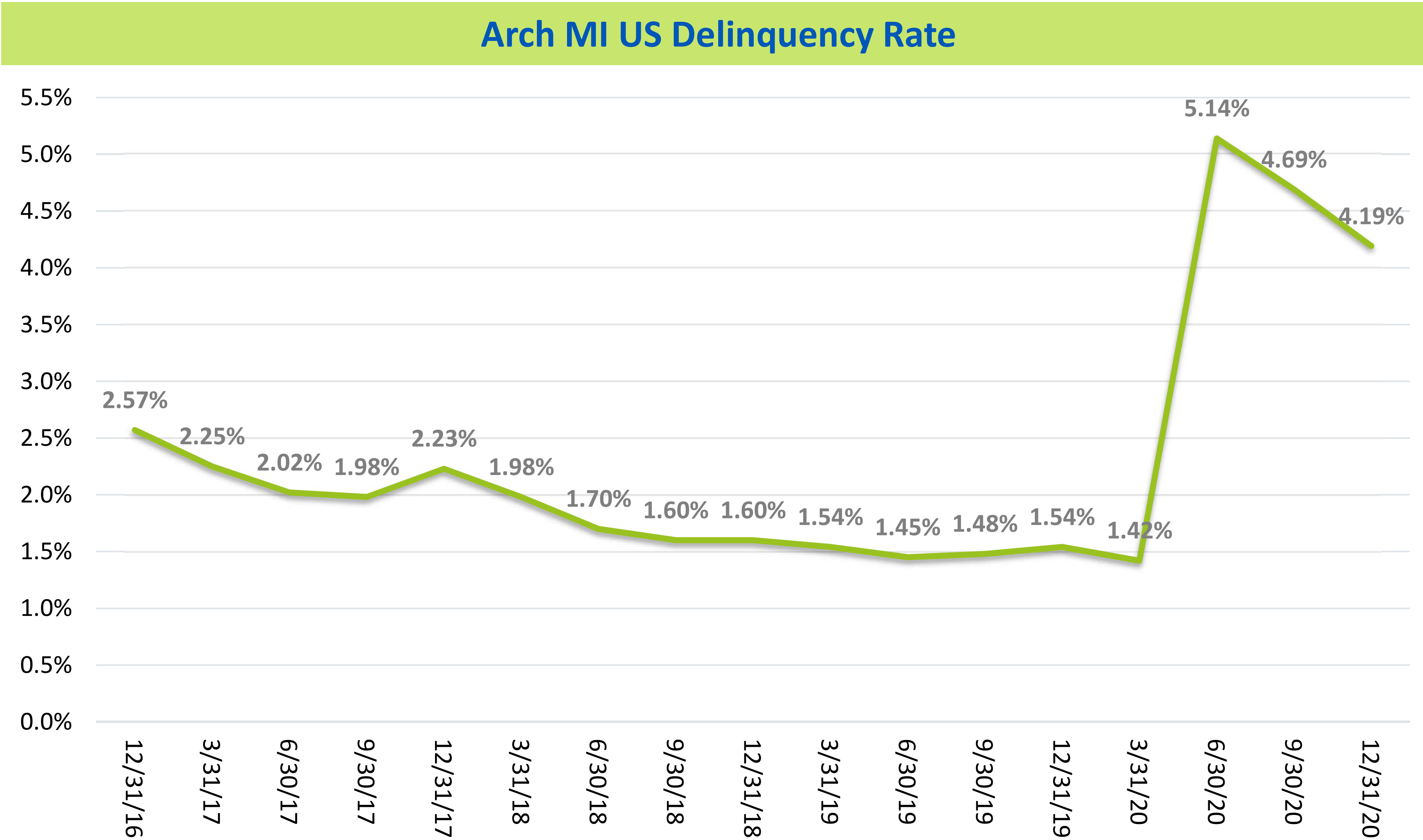
FHA/VA's Share of the Insured Mortgage Market has Declined since 2010

Market Shares of Insured Originations



Source: Inside Mortgage Finance

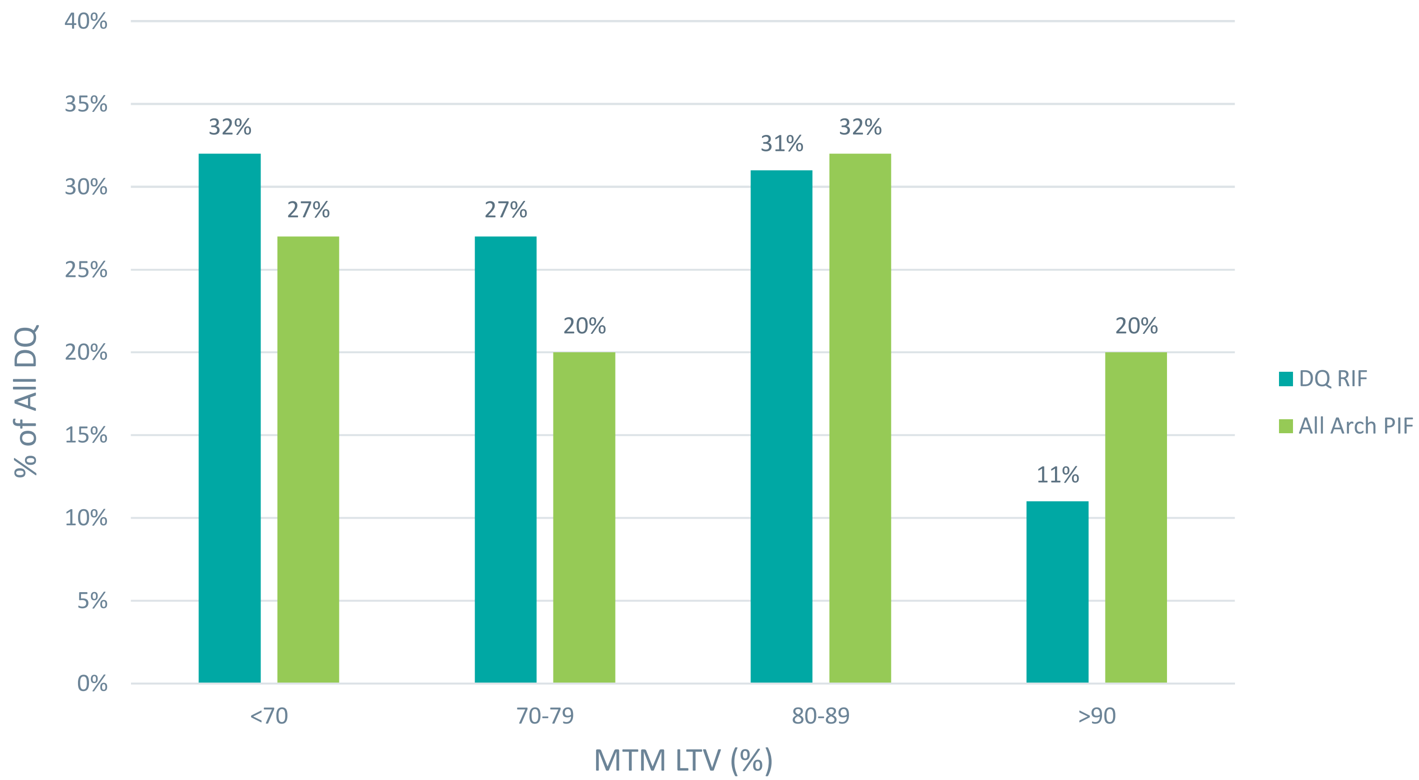
Pandemic Led Rise In US Delinquency Rate



As of 12/31/2020, PMIERs sufficiency ratio: 173% – Calculated as available assets divided by required assets as defined within PMIERs; $1.59 billion of excess available assets.

Equity Position of Delinquent Borrowers

Distribution of Loans by Estimated Mark-to-Market LTV*



An Estimated 89% of Arch Delinquencies Have at Least 10% Equity, Thanks in Part to Strong House Price Appreciation

*MTM LTVs are estimated based on amortization and house price appreciation at the MSA level. House price appreciation is based on the FHFA All-Transactions House Price Index. Data is as of 12/31/20, based on home price appreciation through 9/30/20.

Arch MI US – Bellemeade Reinsurance Coverage by Deal

December 31, 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)(12)	2020-2 (9)(12)	2020-3 (10)(12)	2020-4 (11)(12)
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** (14)	**1/20-5/20**	**6/20-8/20**	**7/19-12/19** (14)
Initial Risk in Force	7,362	7,489	12,809	7,970	5,944	8,872	9,284	7,216	10,571	7,187	6,951	8,121
Current Risk in force	2,791	3,419	5,157	3,206	3,109	3,540	4,854	3,816	7,946	6,483	6,729	7,376
Initial coverage at issuance date	368	374	653	506	342	621	701	577	529	449	452	337
Current coverage	146	250	108	303	219	398	528	469	308	449	452	337
Arch's retention layer	166	169	352	179	208	222	232	162	793	252	174	150
Claims paid under Arch's retention layer	4	3	4	2	16	2	1	1	-	-	-	-
Incurred losses under Arch's retention layer	40	45	47	48	92	59	51	44	38	12	2	3
Arch remaining retention, net of incurred losses	126	124	306	130	117	162	181	118	755	239	172	147
Delinquency % (4)(13)	6.15%	6.08%	3.66%	7.24%	9.40%	8.31%	5.03%	6.31%	2.96%	1.19%	0.29%	0.35%
Delinquency trigger % (5)	5.00%	5.00%	4.00%	5.00%	8.00%	5.00%	4.00%	5.00%	N/A	N/A	N/A	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%	3.50%	2.50%	1.85%
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%	9.75%	9.00%	6.00%
Current Attachment % (6) (cumulative losses as % of RIF)	5.93%	4.93%	6.83%	5.59%	6.69%	6.26%	4.78%	4.25%	9.98%	3.88%	2.58%	2.04%
Current Detachment % (7) (cumulative losses as % of RIF)	11.15%	12.24%	8.93%	15.03%	13.74%	17.52%	15.66%	16.54%	13.86%	10.81%	9.30%	6.61%

(1) Through December 31, 2020, including the $155M of reinsurance coverage provided directly by a panel of reinsurers mentioned below in Notes (8), (9), (10), and (11), Arch Mortgage Insurance Company 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 " 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 between 2005 and 2008 were issued by UGRIC; Policies through 2015 were issued by both UGRIC and Arch Mortgage Insurance Company.

(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 starts absorbing losses again.

(8) $450 million was directly funded by Bellemeade Re 2020-1 Ltd. via insurance-linked notes, with an additional $79 million capacity provided directly to Arch Mortgage Insurance Company and UGRIC by a separate panel of reinsurers. Total initial coverage at issuance date is $529 million.

(9) $423 million was directly funded by Bellemeade Re 2020-2 Ltd. via insurance-linked notes, with an additional $26 million capacity provided directly to Arch Mortgage Insurance Company and UGRIC by a separate panel of reinsurers. Total initial coverage at issuance date is $449 million.

(10) $418 million was directly funded by Bellemeade Re 2020-3 Ltd. via insurance-linked notes, with an additional $34 million capacity provided directly to Arch Mortgage Insurance Company and UGRIC by a separate panel of reinsurers. Total initial coverage at issuance date is $452 million.

(11) $321 million was directly funded by Bellemeade Re 2020-4 Ltd. via insurance-linked notes, with an additional $16 million capacity provided directly to Arch Mortgage Insurance Company and UGRIC by a separate panel of reinsurers. Total initial coverage at issuance date is $337 million.

(12) The Bellemeade 2020-1, 2020-2, 2020-3, and 2020-4 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 75% of all subordinate tranches.

(13) This 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.

(14) There is convergence among Bellemeade 2020-1 and Bellemeade 2020-4 in the context of underlying policies and risk in force; however, the coverage provided by these notes is distinct and non-redundant. Bellemeade 2020-4 provides reinsurance coverage on tranches B-2 and B-3 of the Bellemeade 2020-1 reinsurance structure. The Bellemeade 2020-4 reinsurance coverage is designed to detach prior to the attachment of the most junior reinsured coverage level under the Bellemeade 2020-1 transaction.

Key Terms of Bellemeade Re 2020-4

Cedants	▪ United Guaranty Residential Insurance Co. and Arch Mortgage Insurance Co.
Reinsurer	▪ Bellemeade Re 2020-4 Ltd. (Bellemeade Re), a special purpose reinsurer domiciled in Bermuda
Effective Date	▪ December 22, 2020
Maturity	▪ June 25, 2030 (optional call on December 26, 2025)
Coverage	▪ Bellemeade Re will reinsure cedants' RIF on a pool of loans that was predominately originated between July 1, 2019 and December 31, 2019. ▪ Bellemeade Re is responsible for all losses exceeding 1.85% of RIF subject to an initial limit of **$321.4 million (not including $15.6 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 8.0%. ▪ 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-2A (BB rating by Morningstar and Ba3 by Moody's): 260 basis points (bps), M-2B (B / NR): 360 bps, B-1 (NR / NR): 500 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

Arch MI US – Bellemeade Reinsurance Coverage by Vintage

As of December 31, 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 (2)
2010 and prior	$3,088	$ -	$3,088	83.7%	$2,586
2011	239	-	239	31.8%	76
2012	992	-	992	31.9%	316
2013	2,107	-	2,107	85.1%	1,793
2014	2,273	1,009	1,264	98.0%	1,239
2015	4,048	1,765	2,283	98.8%	2,256
2016	6,648	1,737	4,911	98.6%	4,840
2017	6,413	130	6,283	99.7%	6,263
2018	6,918	119	6,799	99.4%	6,761
2019	12,001	135	11,866	99.3%	11,786
2020	25,796	1,874	23,922	54.9%	13,136
Total *	**$70,522**	**$6,769**	**$63,753**	**80.1%**	**$51,052**

* Numbers may not foot due to rounding.

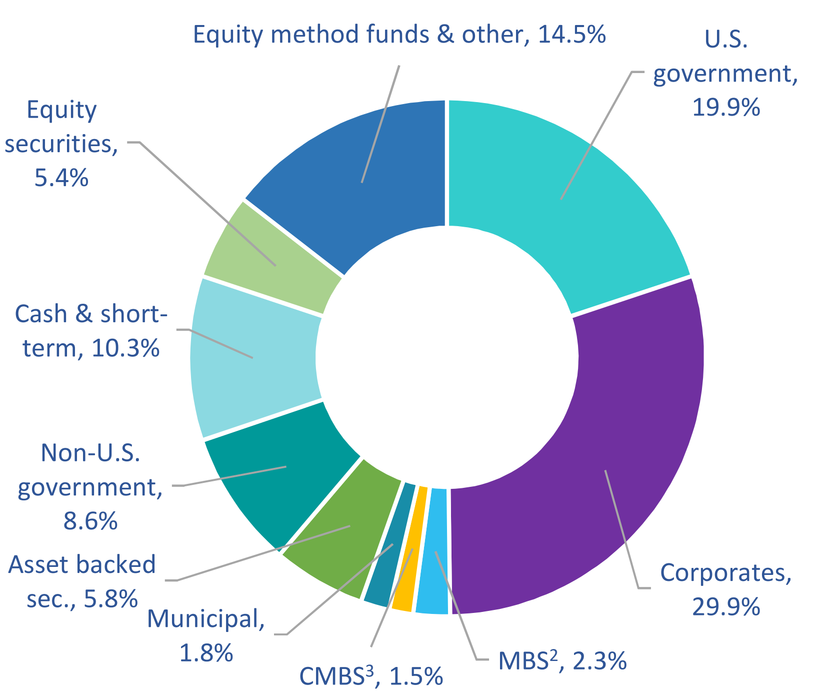
(1) RIF net of QS and excess of loss reinsurance is $56,658.

(2) There is convergence among Bellemeade 2020-1 and Bellemeade 2020-4 in the context of underlying policies and risk in force; however, the coverage provided by these notes is distinct and non-redundant. Bellemeade 2020-4 provides reinsurance coverage on tranches B-2 and B-3 of the Bellemeade 2020-1 reinsurance agreement. The Bellemeade 2020-4 reinsurance coverage is designed to detach prior to the attachment of the most junior reinsured coverage level under the Bellemeade 2020-1 transaction.

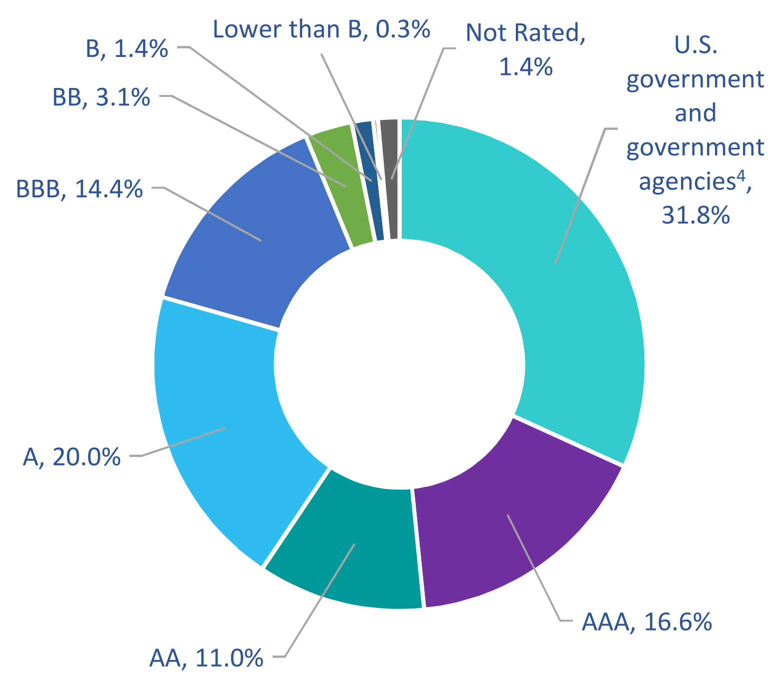
Our Investment Strategy

- 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 - $26.9B[1]



Fixed Maturity by Rating- $18.8B[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 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. In addition, Arch contributed to multiple organizations in support of the Social Justice movement.

Environment / Climate:

Operations: 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 currently measuring our own greenhouse gas footprint so that we can take steps to reduce or offset our emissions.

Our Underwriting and Thermal Coal: In Jan 2021, we implemented sector-specific guidelines that integrate environmental considerations into the underwriting of thermal coal. Our policy applies to our global insurance business and encompasses both existing and new thermal coal mines and coal-fired power plants. We'll screen thermal coal insureds to determine if they derive 30% or more of their revenues from thermal coal power production. If identified, the account will be flagged for escalation. This process codifies our already detailed underwriting process but enables us to mitigate potential ESG risks.

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. 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. We recently launched several worldwide Employee Networks, which are employee-driven communities intended to help build relationships, provide diverse employee populations a broader voice and ultimately help advance D&I at Arch.

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.

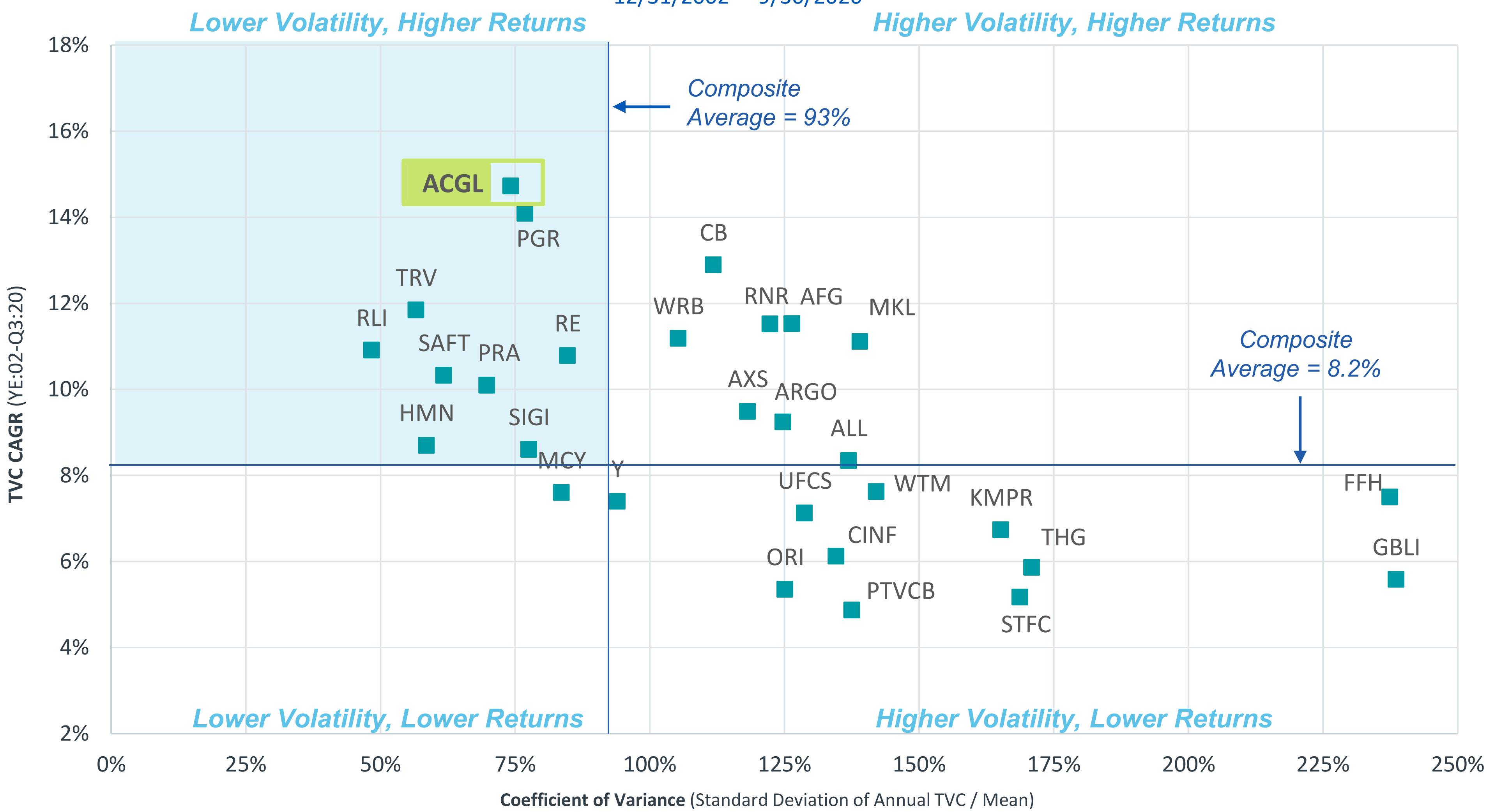
Data Security

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.

Higher, More Consistent, Historical Returns

Total Value Creation vs. Coefficient of Variation – Total Composite

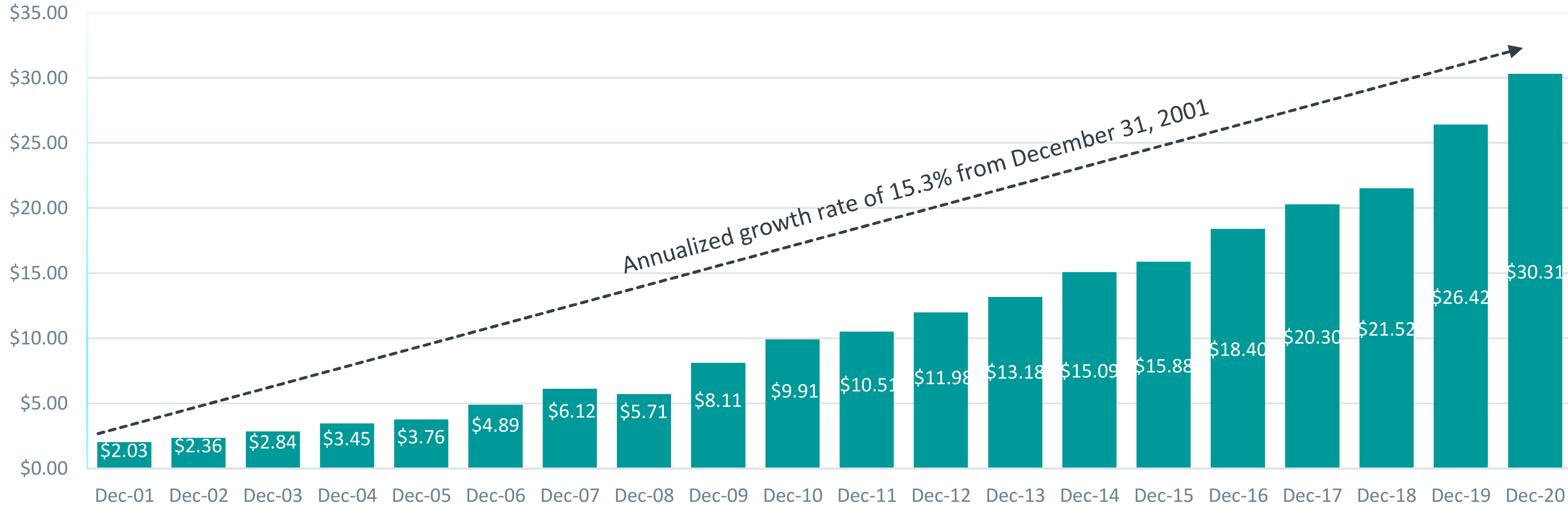
12/31/2002 – 9/30/2020



Excludes CNA (3.3%, 361%), Hartford (2.9%, 363%), MGIC (-3.9%, 583%) and Radian (-1.5%, 637%) as coefficient of variation exceeds 250%; **Source:** D&P Analysis

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
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
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%

[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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