2022 Casualty Loss Reserve Seminar

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The Russia/Ukraine Conflict's Impact on S&P's Sector Outlooks and Ratings for P/C (Re) Insurers

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Russia/Ukraine Conflict: Early Impact - All Russian Insurance Companies' Ratings Withdrawn

– S&P Global Ratings withdrew its ratings on all Russian insurers on March 31, 2022.

– The withdrawal followed the EU's decision on March 15, 2022, to ban the provision of credit ratings to legal persons, entities, or bodies established in Russia.

– At the time of withdrawal, most ratings were at CCC+ (while Russian sovereign rating was at CC before being downgraded to "SD" and withdrawn on April 9, 2022).

– Prior to the rating actions, ratings of domestic Russian insurers typically ranged from BB- to BBB.

Russia/Ukraine Conflict: Insurers Have Limited Exposure

- Some Global Multiline Insurers, like Allianz and AXA, have operations in Russia, as well as some European Multi-Nationals. Exposure in most of the cases is materially less than 1% of overall insurance liabilities/assets.

- We revised Austrian-based UNIQA's ratings outlook to negative on March 8. 2022, and Cyprus-based KLPP's ratings were placed on on CreditWatch Negative on March 2, 2022, both due to their relatively high exposure. KLPP's ratings were subsequently affirmed on May 17, 2022 and assigned a negative outlook.

- Many Global Re-insurers like Hannover Re, Munich Re, SCOR, and Swiss Re have exposure as well. Again, the exposure is materially less than 1% of the consolidated group balance sheet for most of them.

- Other challenges for the insurance sector include inflation and capital market volatility, as insurers are large investors in global capital markets. Fortunately, most insurers entered 2022 with robust capital buffers.

Russia/Ukraine Conflict: Insured Losses Likely An Earnings Event

Global re/insurance business lines exposed

Aviation - contingent war, all risks
Trade credit
Political risk - contract frustration, agriculture and commodities
Cyber
Political violence
Marine hull war

Specialty Insurance loss scenarios from Russia-Ukraine Conflict

Specialty insurance loss scenarios	Insured loss $ bil.	Loss for global reinsurers $ bil.	Top 21 global reinsurers share (%)	Assumptions
Scenario 1	16	8	50	Insured aviation losses of $6 billion and $10 billion from other specialty lines
Scenario 2	27	13.5	50	Insured aviation losses of $12 billion and $15 billion from other specialty lines
Scenario 3	35	17.5	50	Insured aviation losses of $15 billion and $20 billion from other specialty lines

Slowing Economic Growth As Inflation Rears Its Ugly Head

Social and CPI inflation puts pressure on reinsurers' claims costs and loss reserves in 2022 and 2023

Inflation As Measured By Consumer Price Index

%	2021	2022f	2023f	2024f
U.S.	4.7	7.5	3.4	1.7
Eurozone	2.6	7.0	3.4	2.2
U.K.	2.6	8.7	4.8	1.6
Japan	(0.2)	2.2	1.4	1.0
China	0.9	2.3	2.5	2.2

Source: S&P Global Ratings.
f--Forecast. The consumer price index is an annual average.

EMEA Insurers: Key Takeaways

EMEA insurers have so far proved resilient against the geopolitical turmoil caused by the Russia/Ukraine war--and the resulting uncertainty around energy supply--and China-based supply chain issues affecting manufacturing.

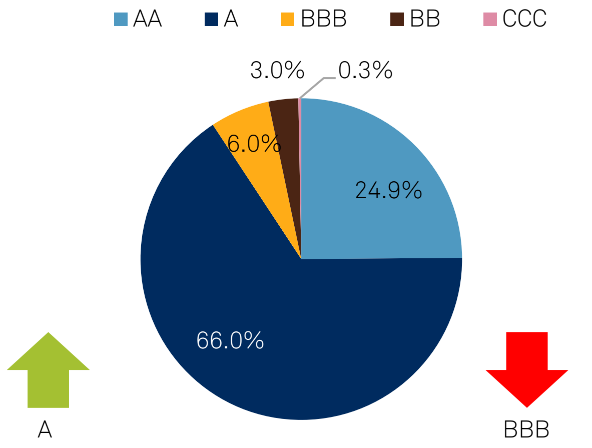
These have impacted European countries' GDP, consumer price indices, and long-term rates.

Insurers' capital surplus protects against investment market volatility, currently at an average 9% redundancy on the 'AA' level, which may erode during 2022.

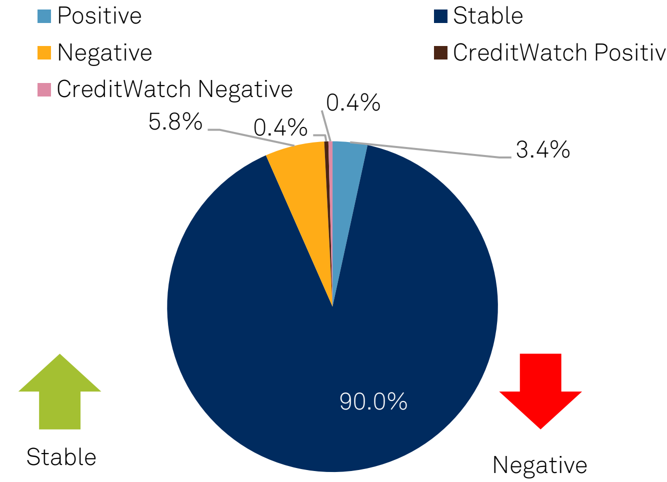
Rising inflation and long-term interest rates and depressed capital markets are affecting insurers in the following ways:

- Non-life insurers see a short-term rise in claims costs and increased premium rates. We do not expect margins to erode materially or competition to increase.
- Insurers, mainly life, are losing unrealized gains, but benefit from rising reinvestment rates.
- Of the EMEA insurers that we rate, 90% have a stable outlook; the robustness of rated insurers in EMEA will be tested in the coming months.

Ratings With Strong Positions



Robustness Reflected In Outlooks



Source: S&P Global Ratings as of June 29, 2022.

EMEA Insurance Key Risks: Insurance Investments Top The List

Risk factor	Descriptor	Risk Level	Risk Trend
Asset risk	Equity and bond market drops impact insurers' balance sheets and investment returns. A pickup in defaults in private equity and private debt may take its toll.	Moderate	Worsening
Insurance claims	Inflation leads to higher insurance claims, mainly affecting emerging markets. Natural catastrophe claims, Russia/Ukraine linked speciality lines claims, and COVID-19-related claims burden EMEA based re/insurers.	Moderate	Worsening
Insurance top line	Geopolitical risk impacts GDP, and subsequently insurers' top lines in some segments.	Moderate	Worsening
Financing conditions	Rising interest rates and higher capital market volatility have increased the cost of refinancing.	Moderate	Worsening
Hybrid ratings	Volatility in regulatory solvency ratios could heighten deferral risk.	Low	Unchanged
Climate transition	Delay in the transition to carbon-neutral energy supply due to the immediate need for energy.	Moderate	Worsening
Cyber risk	Pickup in cyber attacks to challenge insurers' firewalls, and their cyber insurance exposure.	Moderate	Worsening

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Global Reinsurance Sector: Our View Remains Negative

Reinsurance Sector Headwinds And Tailwinds

Headwinds

- Slowing economy, inflationary pressures on reinsurance pricing and reserve adequacy, and rising claims costs
- Elevated natural catastrophe losses influenced by inflation, urbanization, and climate change
- Mark-to-market investment losses eroding capitalization
- Increasing cost of capital

Tailwinds

- Robust capitalization entering 2022
- Higher investment income due to rising bond yields
- Hardening reinsurance pricing and improving underlying profitability

Source: S&P Global Ratings.
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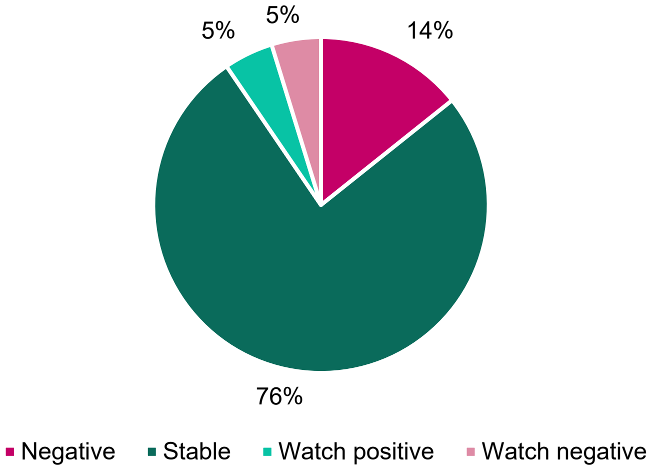
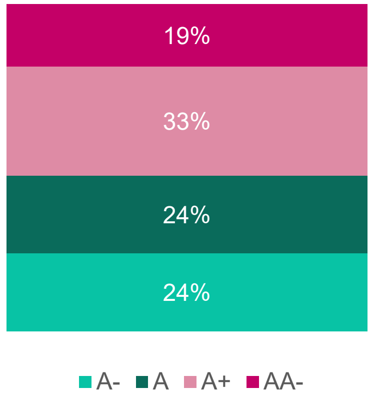
Outlook Distribution



Rating Distribution



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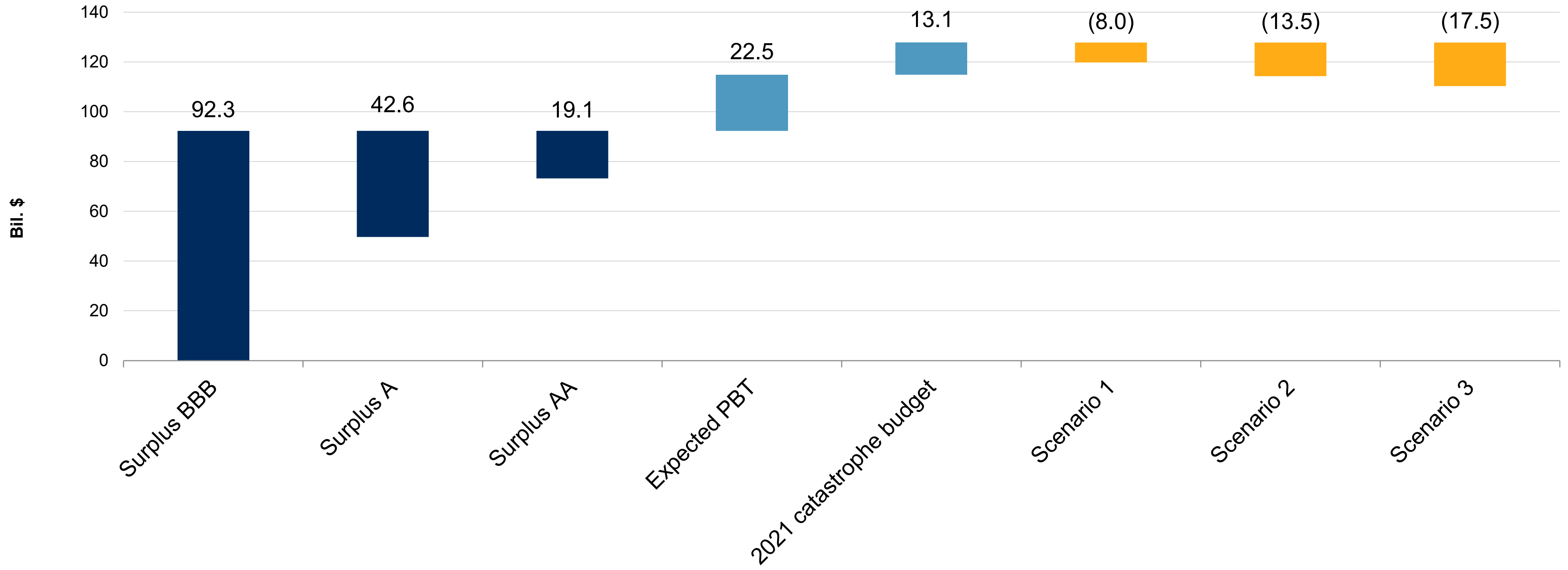
Global Reinsurance: Reinsurers Well Set To Absorb Specialty Insurance Losses From The Conflict

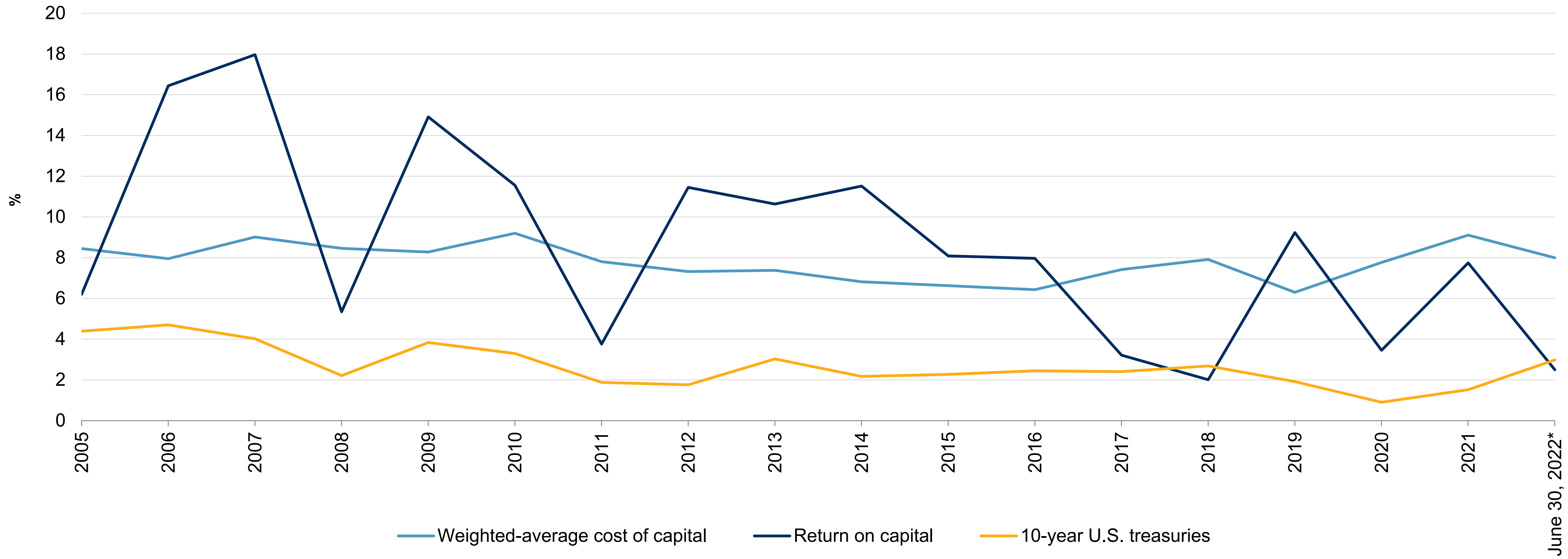


Blue bars represent surplus capital according to SPGR's capital adequacy model confidence levels for the top 21 global reinsurers based on year-end 2020 data. Source: S&P Global Ratings. PBT--Profits before tax. Source: S&P Global Ratings.

Global Reinsurance: Earning Cost Of Capital Remains An Obstacle

Reinsurers struggled to earn their cost of capital in the past five years except in 2019

– In 2021, ROC improved to 7.7% but still did not exceed the relatively higher COC of 9.1%. The trend will likely continue in 2022 because of financial market volatility



*Return on capital is calculated using trailing 12 months. Source: S&P Global Ratings, Bloomberg.

Global Reinsurance: Operating Performance

Despite underperformance in the past five years, the underlying metrics have improved in the past 18 months

- In the past five years the average combined ratio was 102.3%, severely affected by elevated natural catastrophe and pandemic losses
- Underlying profitability is expected to improve further

(%)	2017	2018	2019	2020	2021	2022f	2023f
Combined ratio	108.7	100.7	100.6	104.7	96.5	95-98	95-98
(Favorable)/Unfavorable reserve developments	(4.7)	(5.0)	(1.5)	(2.0)	(2.8)	(1)-(2)	(1)-(2)
Natural catastrophe losses' impact on the combined ratio	16.9	9.8	7.3	6.2	9.4	8-10	8-10
COVID-19 losses' impact on the combined ratio	N/A	N/A	N/A	8.6	0.4	<1	<1
Accident-year combined ratio excluding natural catastrophe losses, COVID-19 losses, and reserve developments	96.5	95.9	94.8	91.9	89.5	88-89	88-89
Return on equity*	1.7	2.9	9.0	2.0	9.4	3-5	7-9

The top 21 global reinsurers are: Alleghany, Arch, Ascot, Aspen, AXIS, China Re, Everest Re, Fairfax, Fidelis, Hannover Re, Hiscox, Lancashire, Lloyd's, Markel, Munich Re, PartnerRe, Qatar Ins., RenaissanceRe, SCOR, Sirius, and Swiss Re.
*Returns on equity in 2022 and 2023 will depend on investment performance.
f--Forecast.
NA/--Not applicable

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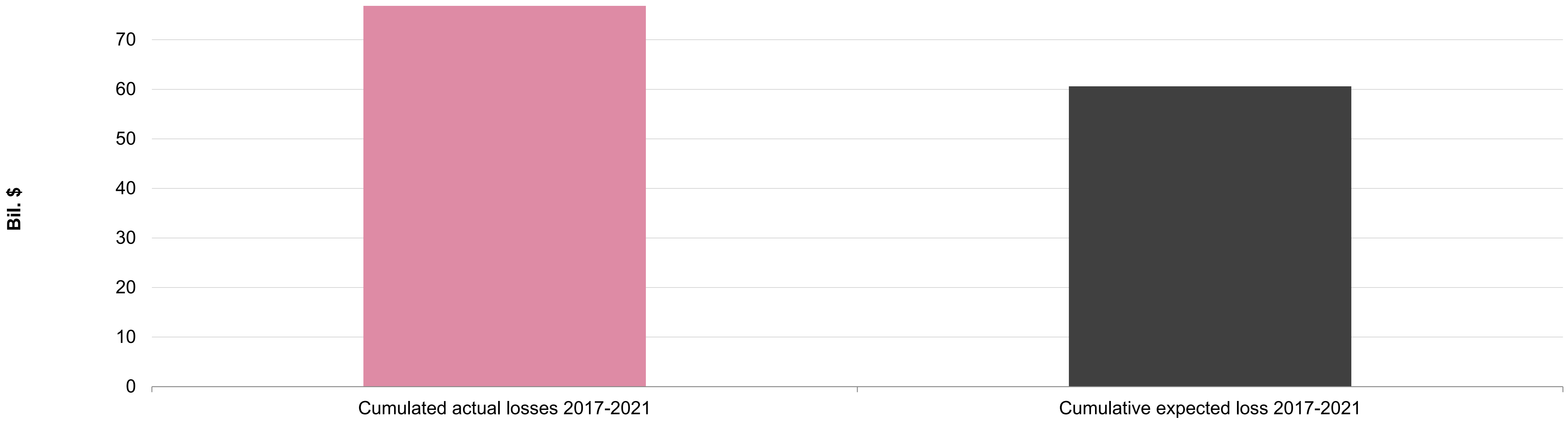
Global Reinsurance: Natural Catastrophe Risk - Impact On ROE

Cumulative excess natural catastrophe losses reduced ROE by about 2.5 percentage points on average annually over 2017-2021 compared with companies' budgets

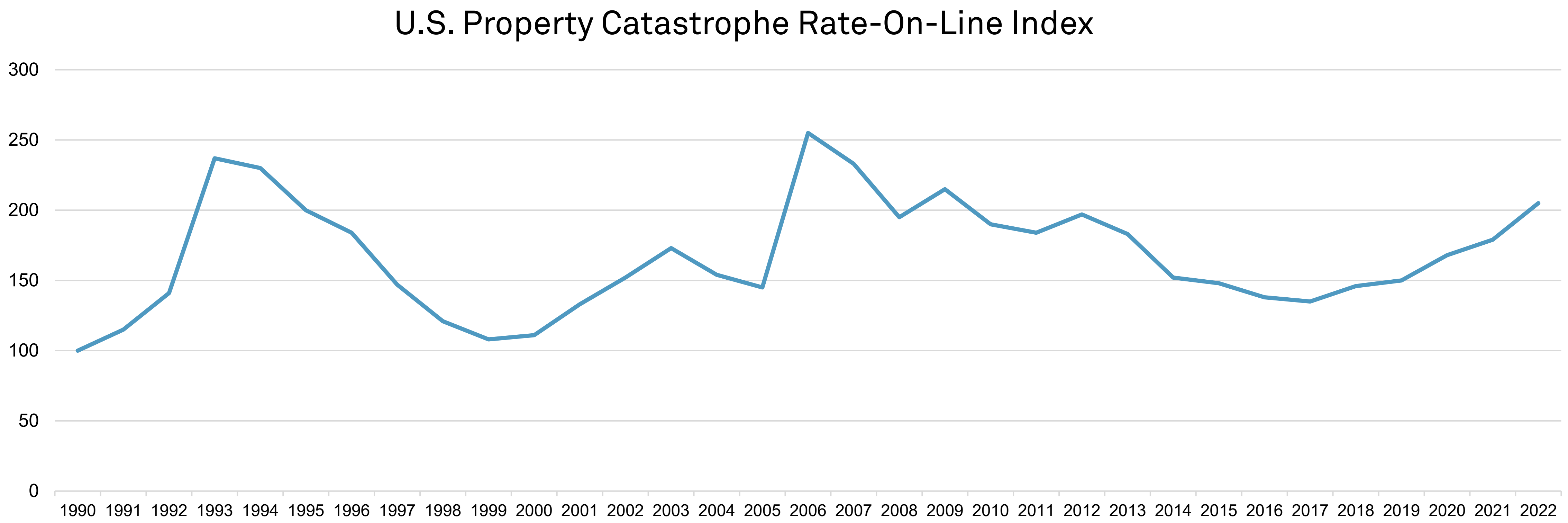


ROE--Return on equity. Source: S&P Global Ratings' estimates.

Reinsurance Pricing – A Game Of Cat And Mouse

Reinsurance renewals have become an increasingly dynamic process

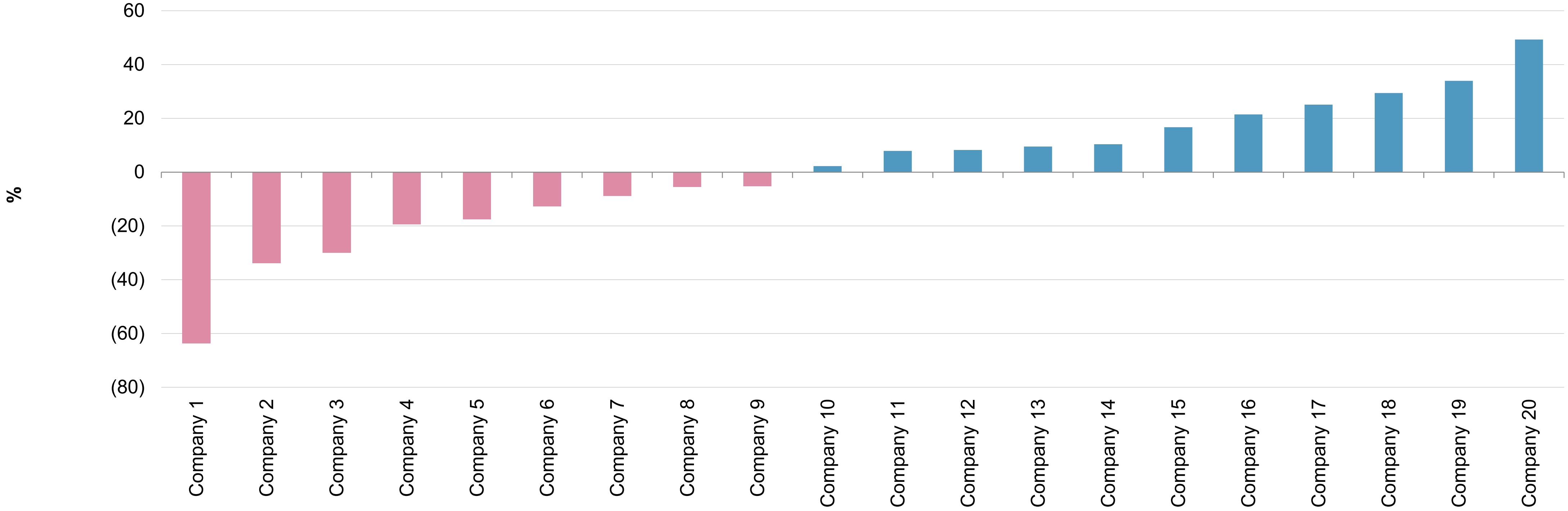
- Inflation, climate change, macroeconomic uncertainties and rising unmodelled risks should keep property catastrophe pricing momentum into 2023
- Casualty has seen compounded multiyear rate increases, but pressure on ceding commissions have intensified, and rates in certain lines have moderated



Source: Guy Carpenter

Global Reinsurance: Catastrophe Risk Exposure
Contrasting Strategic Realignment Is At Work

Net one-in-250 year aggregate exposure change in 2022 highlights contrasting strategies

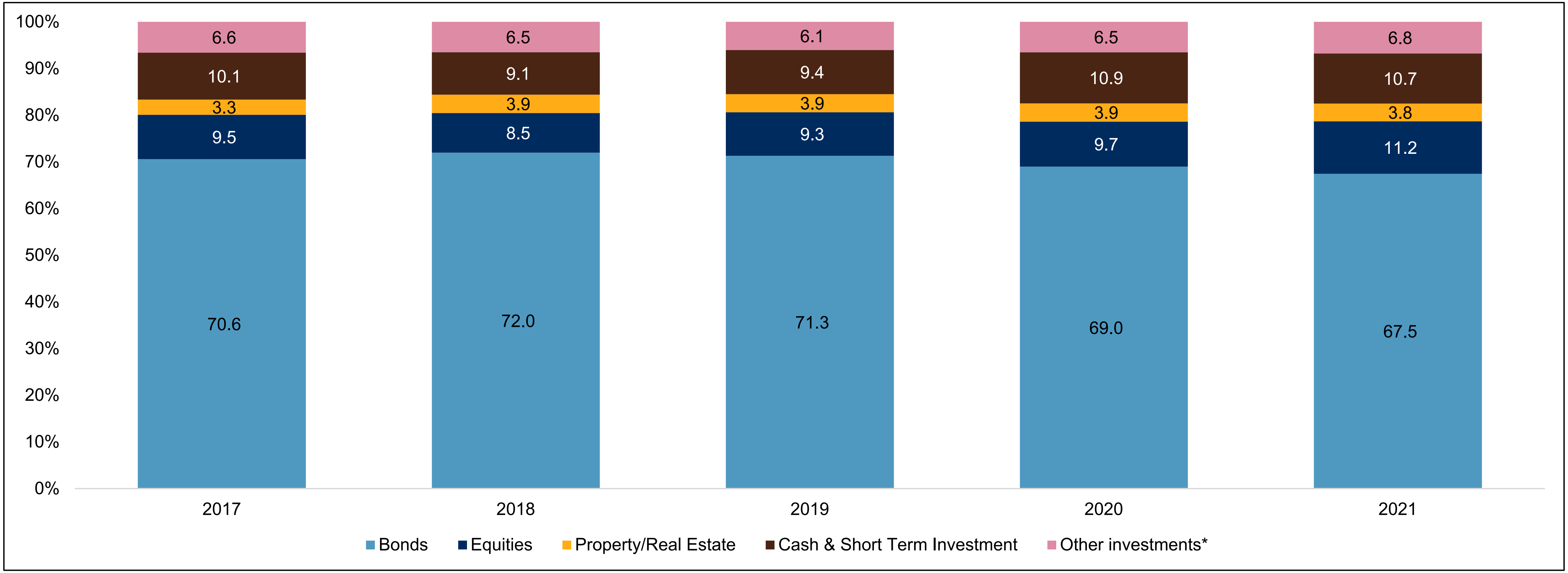


Source: S&P Global Ratings.

Global Reinsurance: Investments Well Diversified And Conservative

Mark to market losses battering investments and capital

– Rising interest rates bring short term volatility, but boost investment income

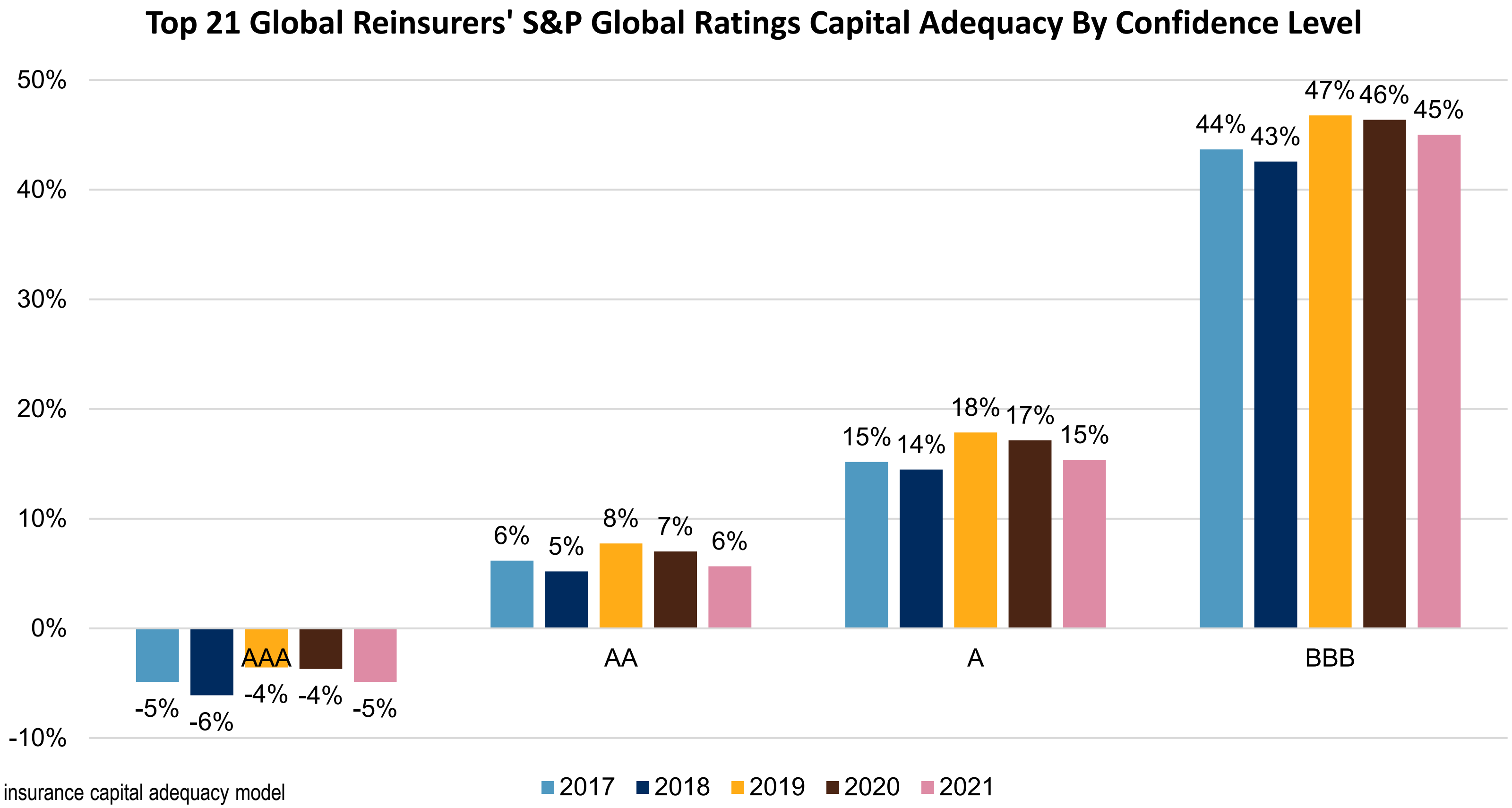


*Other investments include mortgages, loans, and deposits with cedants.

Global Reinsurance: Sector Anchored By Its Capital Strength

The global reinsurance sector entered 2022 with robust capitalization redundant at the 'AA' confidence level

- Mark-to-market losses will erode capital buffers in 2022, but improving underwriting earnings, increasing investment income, prudent capital management, and sophisticated levels of risk management should sustain the industry's capital adequacy

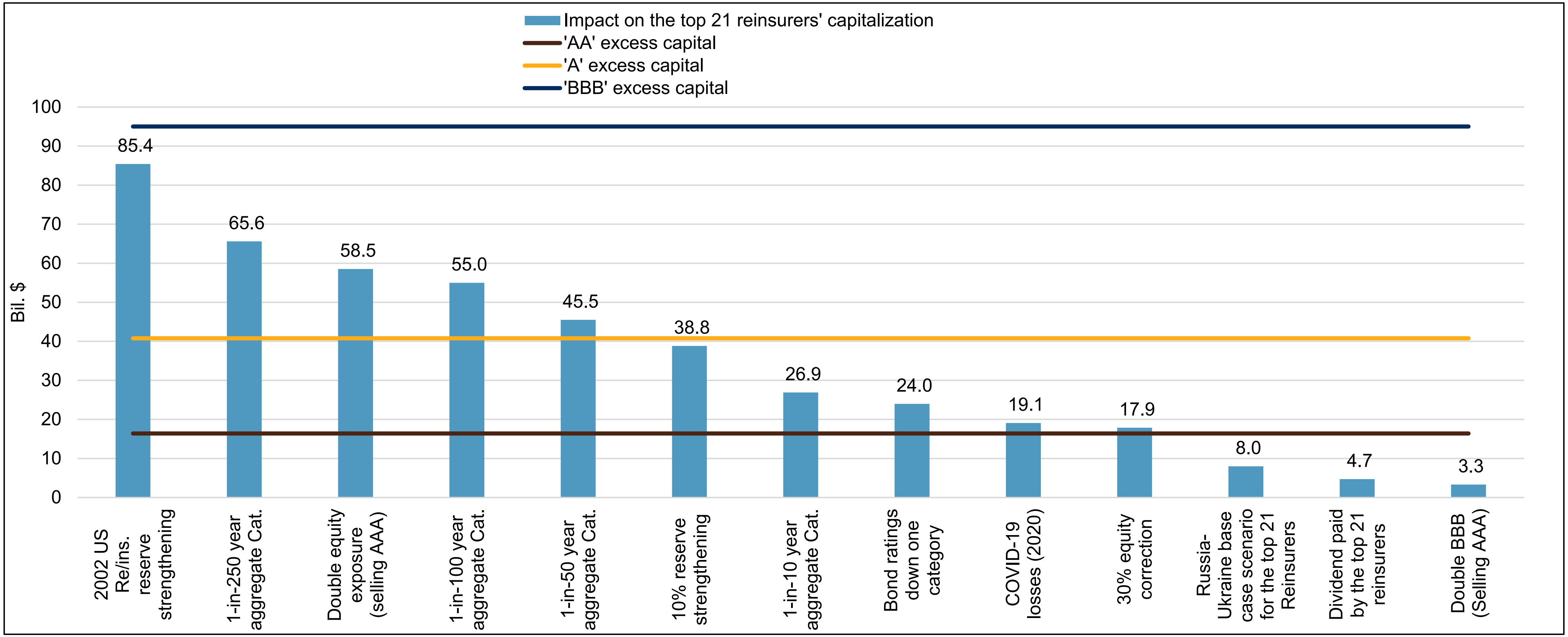


Source: S&P Global Ratings' risk-based insurance capital adequacy model

Global Reinsurance: Capitalization Resilient To Moderate Stress

Reserves and natural catastrophes remain key risks

- Reinsurance capital adequacy will remain a strength of the sector and resilient to moderate stress

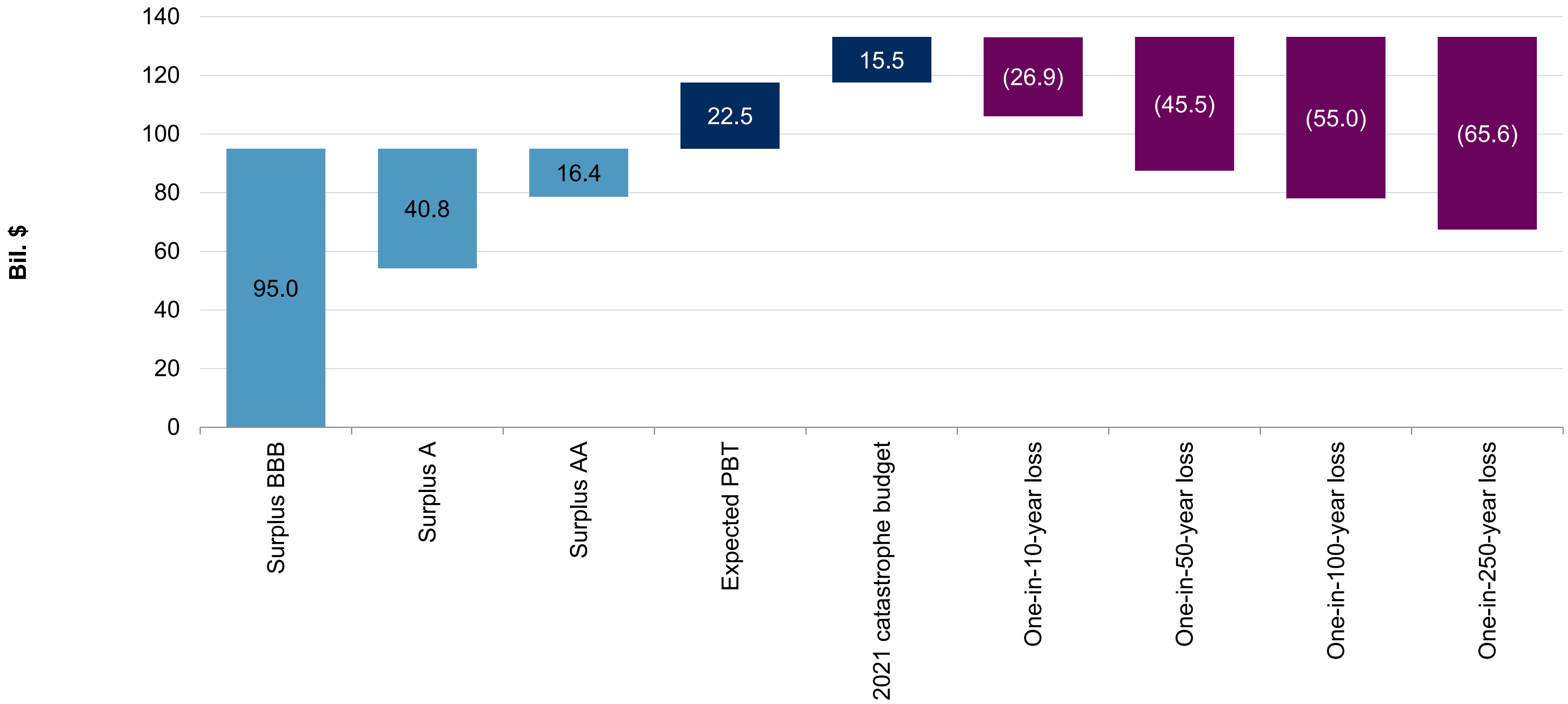


Source: S&P Global Ratings

Global Reinsurance: Buffers Against Natural Catastrophes

The industry's capital surplus suggests it would be resilient to stress scenarios

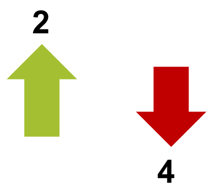
- The Top 21 reinsurance peer group have significantly increased their budgets for natural catastrophe losses in 2022 to $15.5 billion
- If losses were in line with the budget, we forecast that the group will post profits before tax of about $22.5 billion in 2022. In a severe stress scenario, this implies that the group has a buffer of about $38 billion before its capital would be depleted



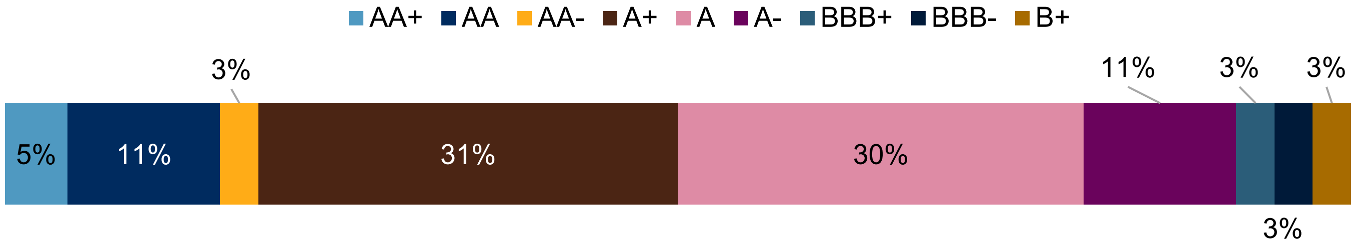
PBT—Profit before tax
Source: S&P Global Ratings

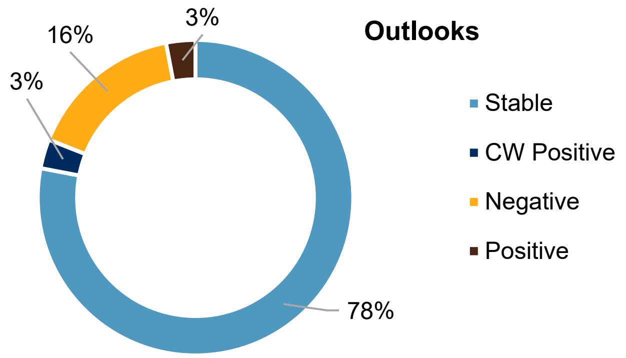
U.S. Property & Casualty Insurance: Credit Overview

2022 Outlook Actions*



Ratings Distribution





Our credit outlook for the U.S. property/casualty insurance sector is stable.

Key rating factors:

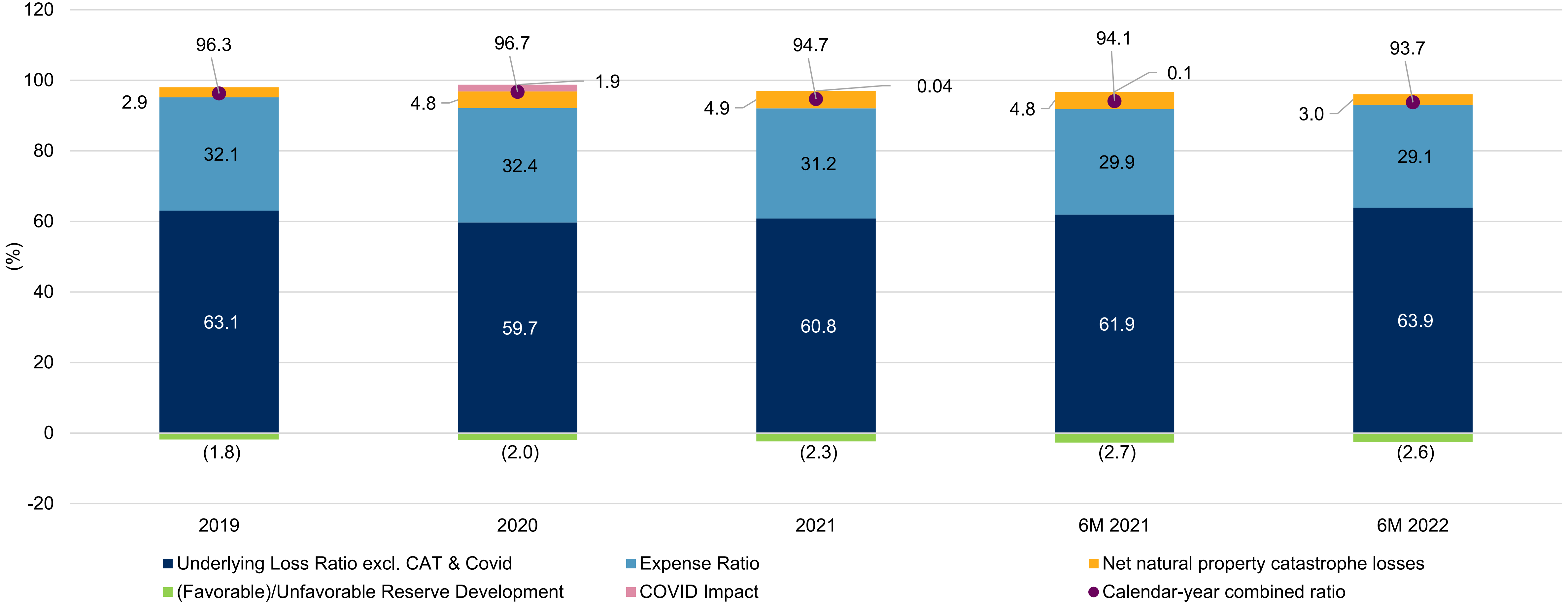
- Capital remains a strength and supportive of ratings, though there is now less of a buffer due to decline in AOCI;
- Firm pricing trend continues to drive margin expansion for commercial lines writers;
- Personal auto writers under pressure from claims severity - rate actions being taken as permitted to alleviate pressures;
- COVID-19 losses contained within reserves posted in 2020;
- Reserve releases likely to continue at a similar level to recent years;
- Investment portfolios remain generally conservative – capital markets volatility has reduced bond and equity valuations.

Source: S&P Global Ratings. Note: P/C ratings information as of September 05, 2022

Note: Outlook distribution include ProAssurance’s Holding Company ICR.

*In 2022, there was only 1 rating action on American Family from ‘A’ to ‘A-’.

Select U.S. P/C Insurers: Underwriting Performance



Methodology: Aggregate metrics calculated using simple average
Companies Included: ALL, AFG, AIG, CB, CN A, THG, HIG, MKL, PGR, RLI, WRB, TRV, SIGI, CINF, KMPR, PRA, LGIM

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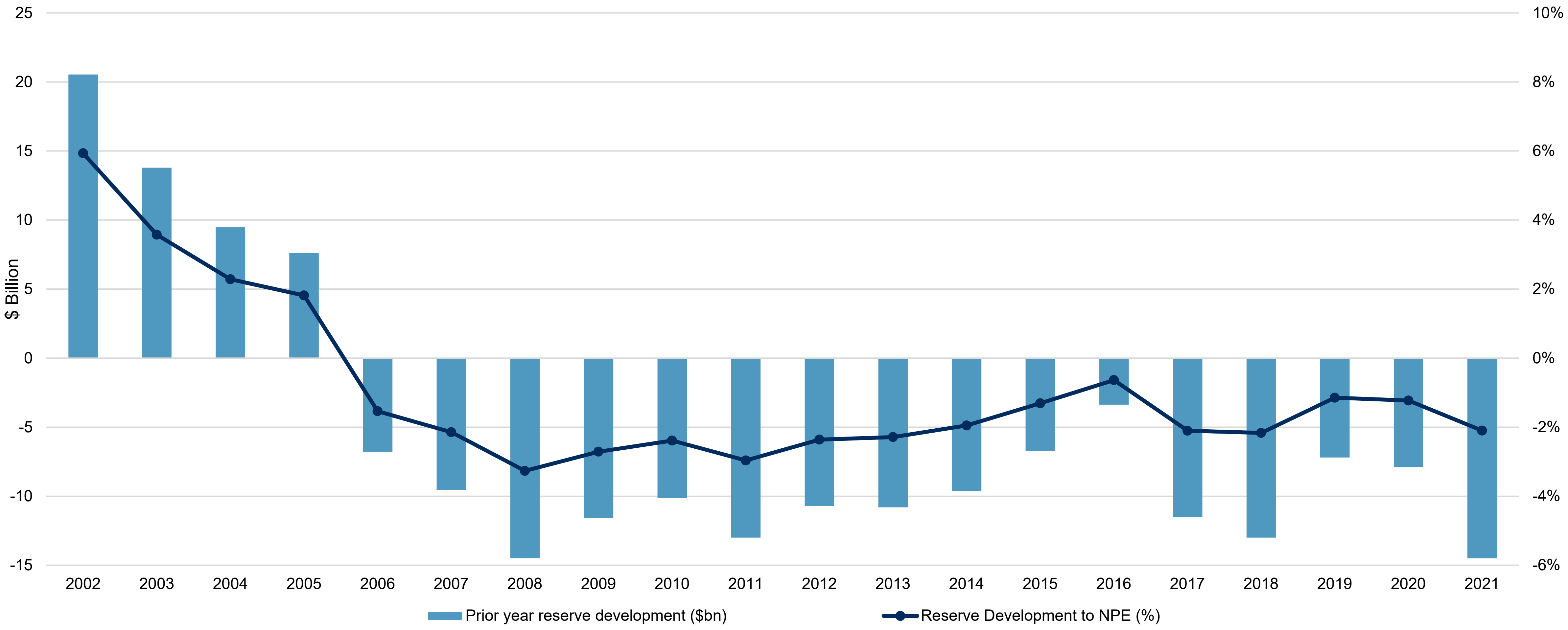
U.S. P/C Industry: Prior Year Reserve Development



Source: Reserve development from Property Claim Services®, a unit of ISO®, a Verisk Analytics® business; NPE for ratio calculations from S&P Global Market Intelligence

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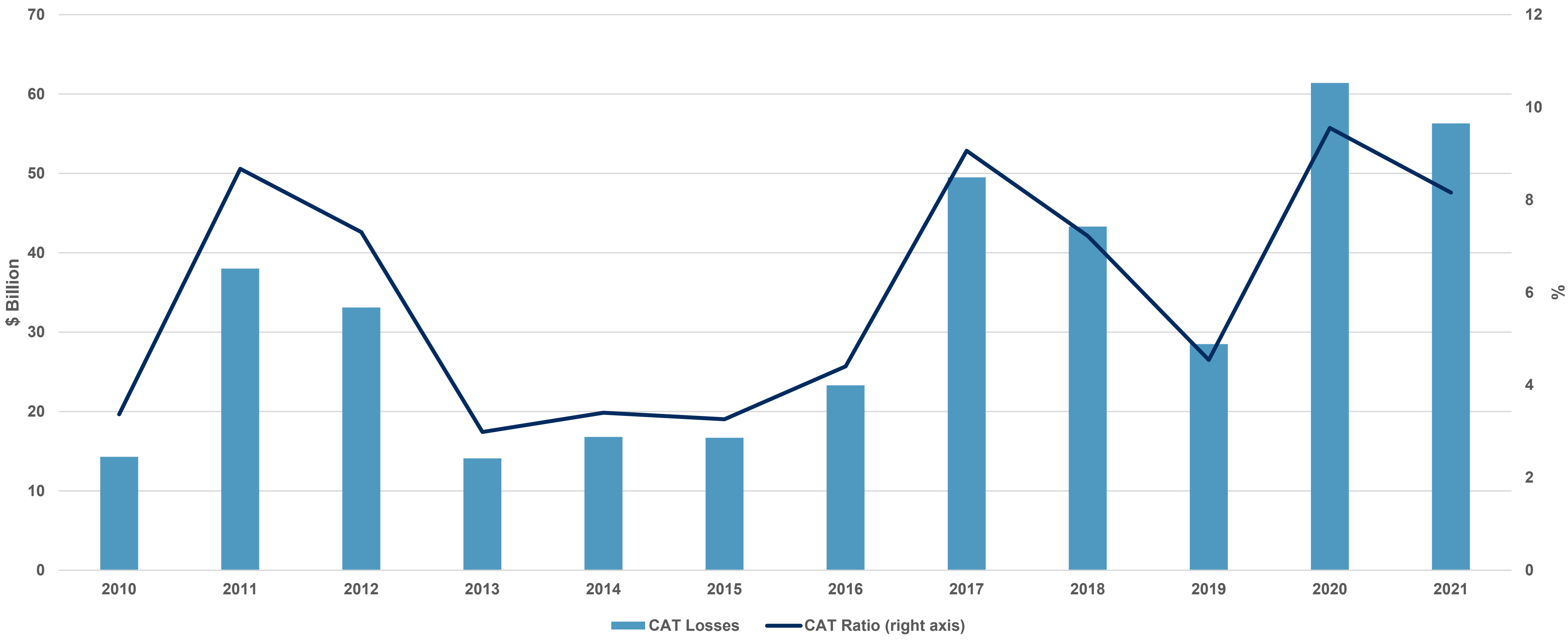
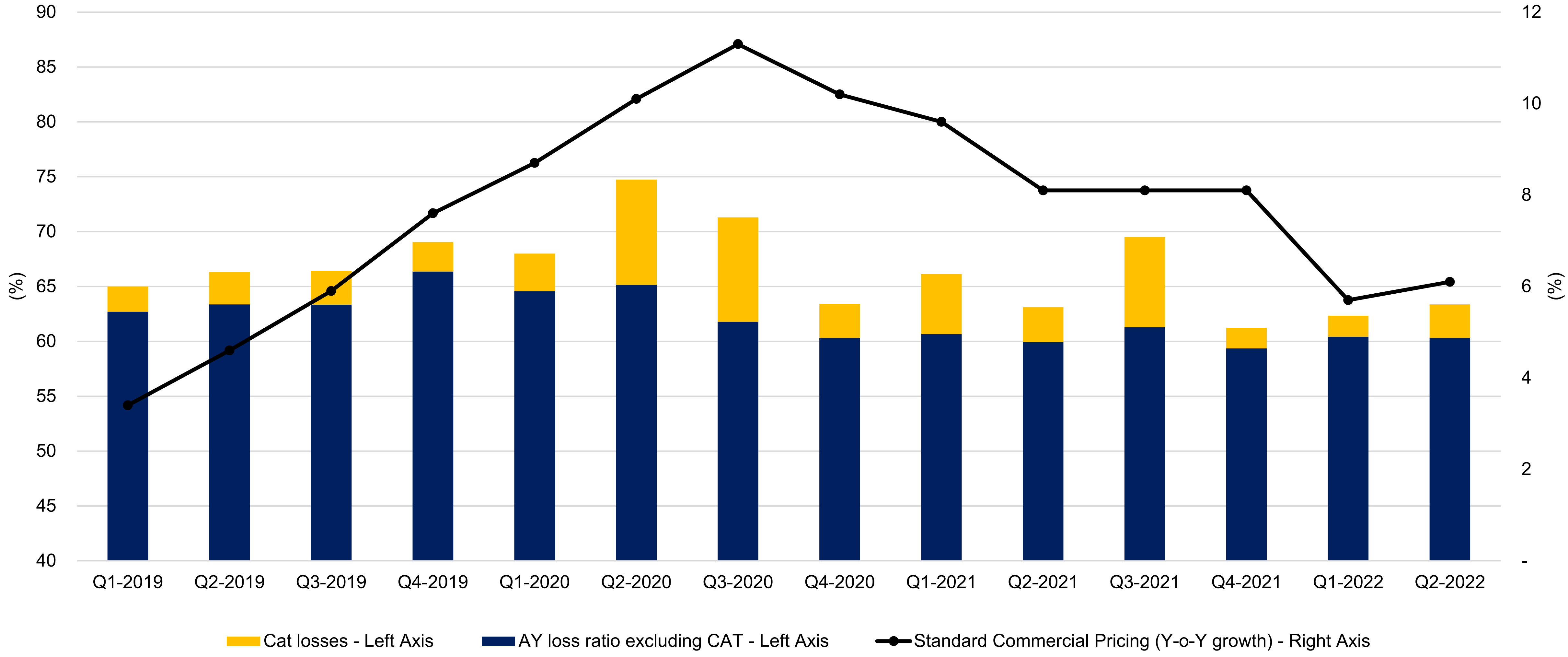
U.S. P/C Industry: U.S. Catastrophe Insured Losses



Source: Cat losses from Property Claim Services®, a unit of ISO®, a Verisk Analytics® business; NPE for CAT ratio calculations from S&P Global Market Intelligence

Select U.S. P/C Insurers: Commercial Lines Loss Ratio Trend



Source: SEC filings, CIAB Pricing Survey
Methodology: Aggregate metrics calculated using simple average
Companies Included: AFG, AIG, CB, CN A, HIG, MKL, RLI, WRB, SIGI, CINF, PRA

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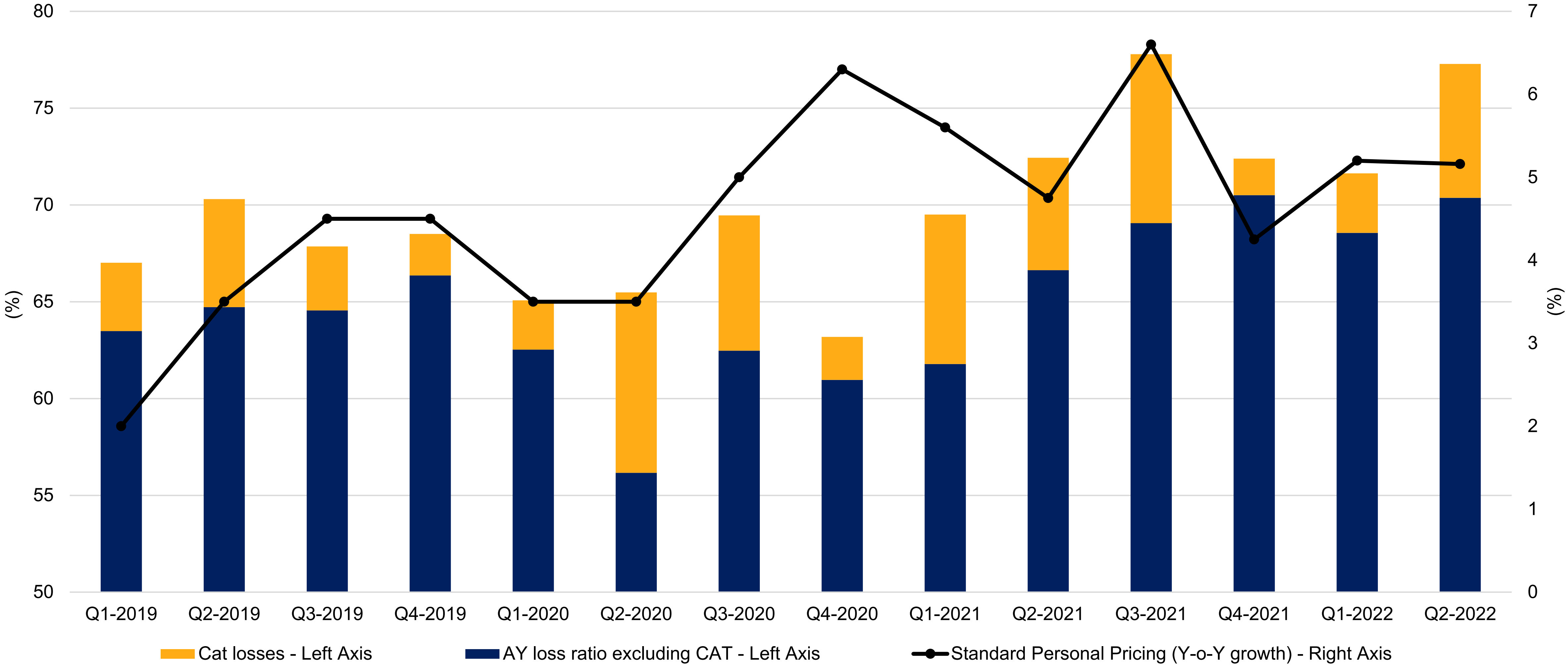
Select U.S. P/C Insurers: Personal Lines Loss Ratio Trend



Source: SEC filings & Market Scout Barometer
Methodology: Aggregate metrics calculated using simple average
Companies Included: ALL, KMPR, TRV, THG, LMIG, PGR

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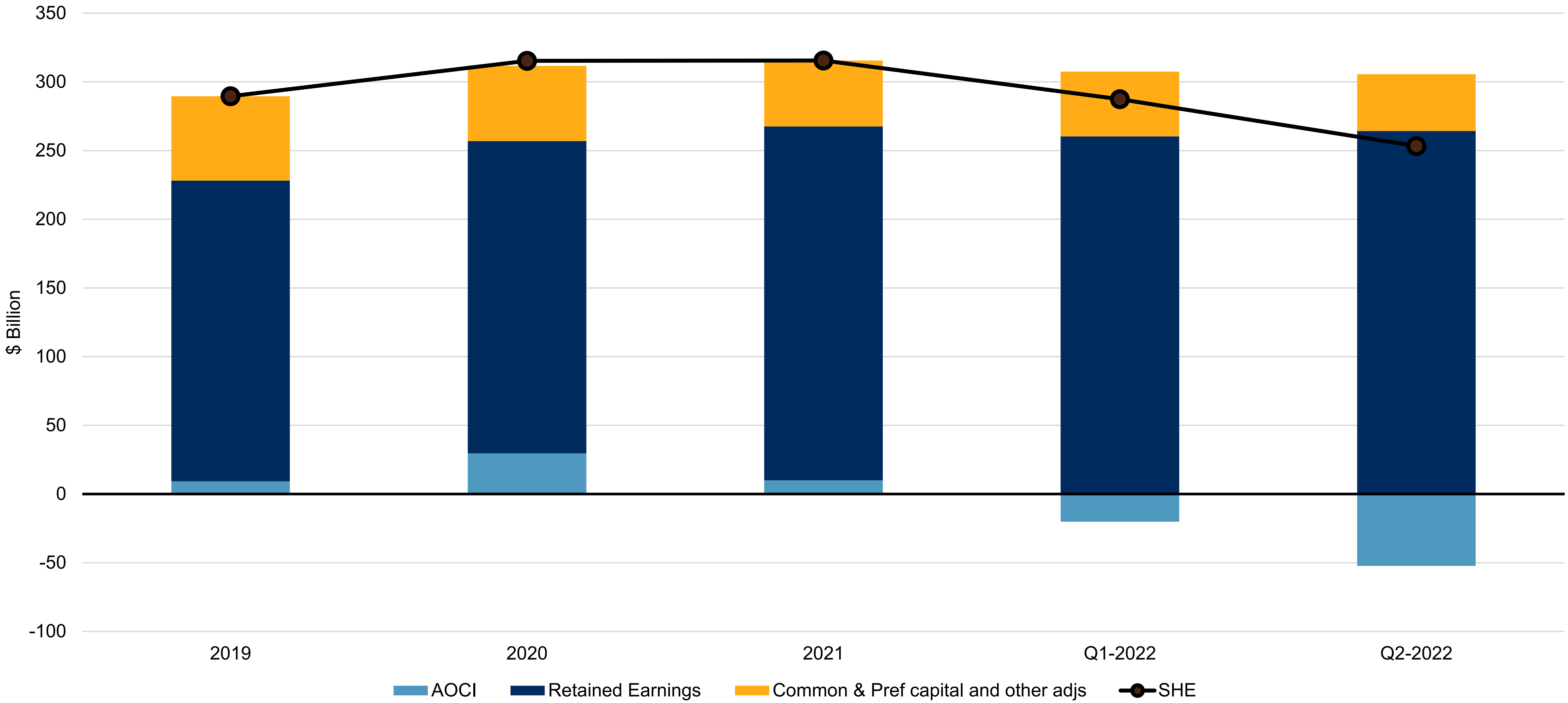
Select U.S. P/C Insurers: Shareholder Equity Components



Source: SEC filings
Companies Included: ALL, AFG, AIG, CB, CNA, THG, HIG, MKL, PGR, RLI, WRB, TRV, SIGI, CINF, KMPR, PRA, LGIM, ORI

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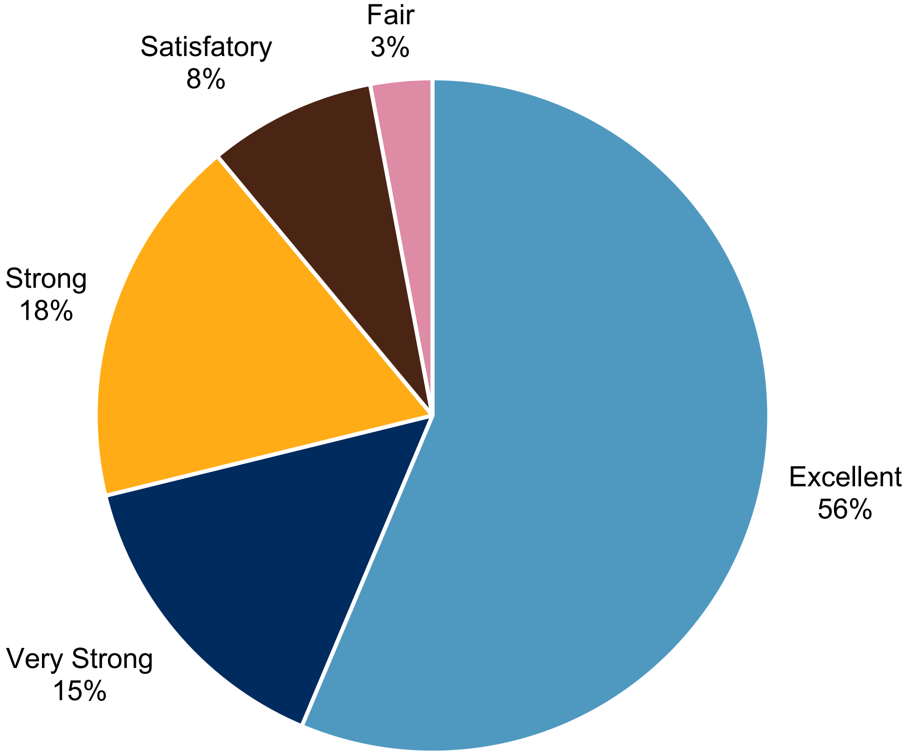
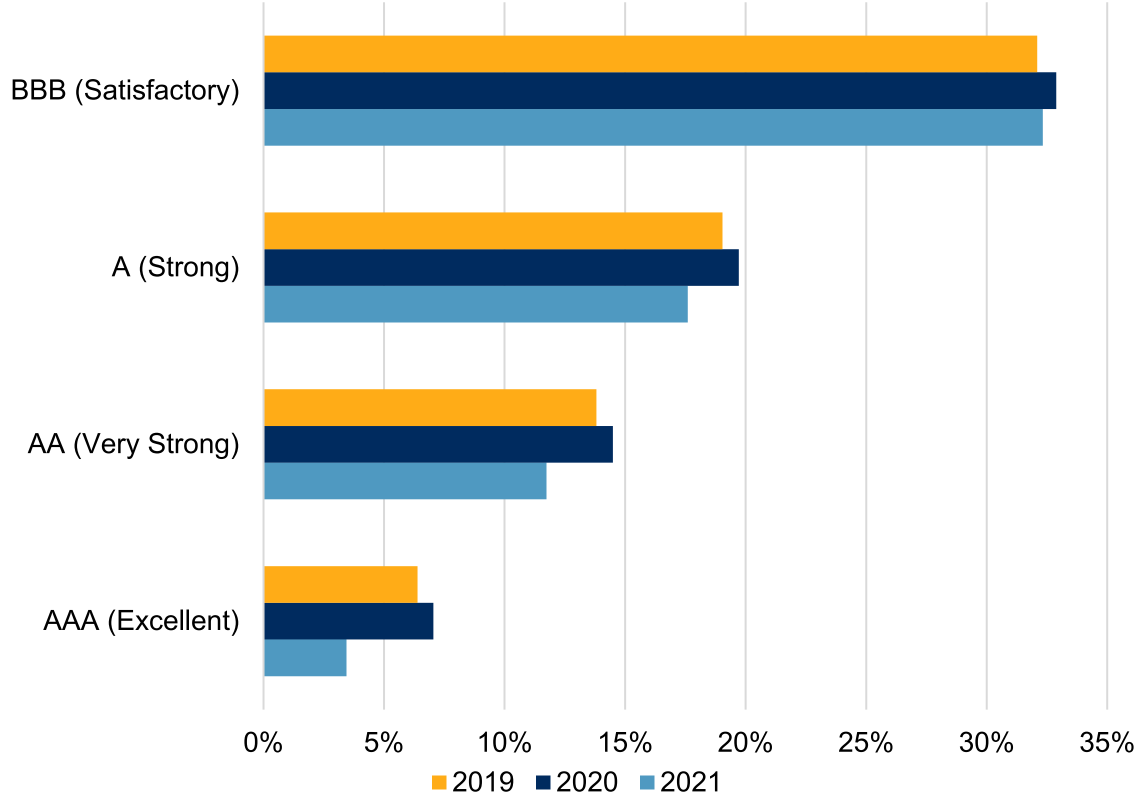
U.S. P/C Insurance: Capital Adequacy Remains a Key Strength

89% of Rated Insurers Have Strong or Higher Capital



*Rated U.S. Non-Life Insurers' Capital Adequacy YE 2021 vs YE 2020 vs YE 2019



Source: S&P Global Ratings
* Excludes capital assessment for State Farm and AIG Group

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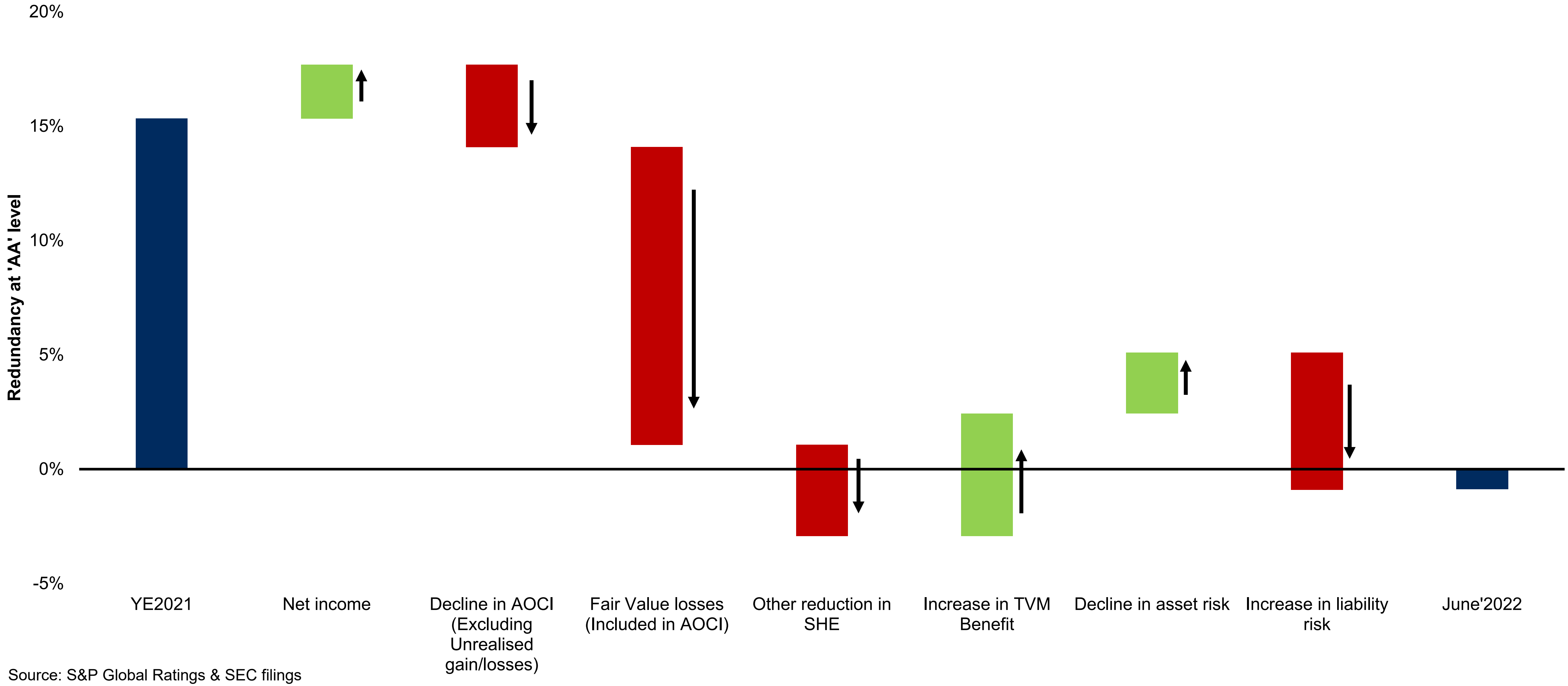
Select U.S. P/C Insurers: Estimated Changes in Capital Adequacy First Half of 2022



Source: S&P Global Ratings & SEC filings
Companies Included: ALL, AFG, CB, CNA, THG, HIG, MKL, PGR, RLI, WRB, TRV, SIGI, CINF, KMPR, PRA, LGIM, ORI

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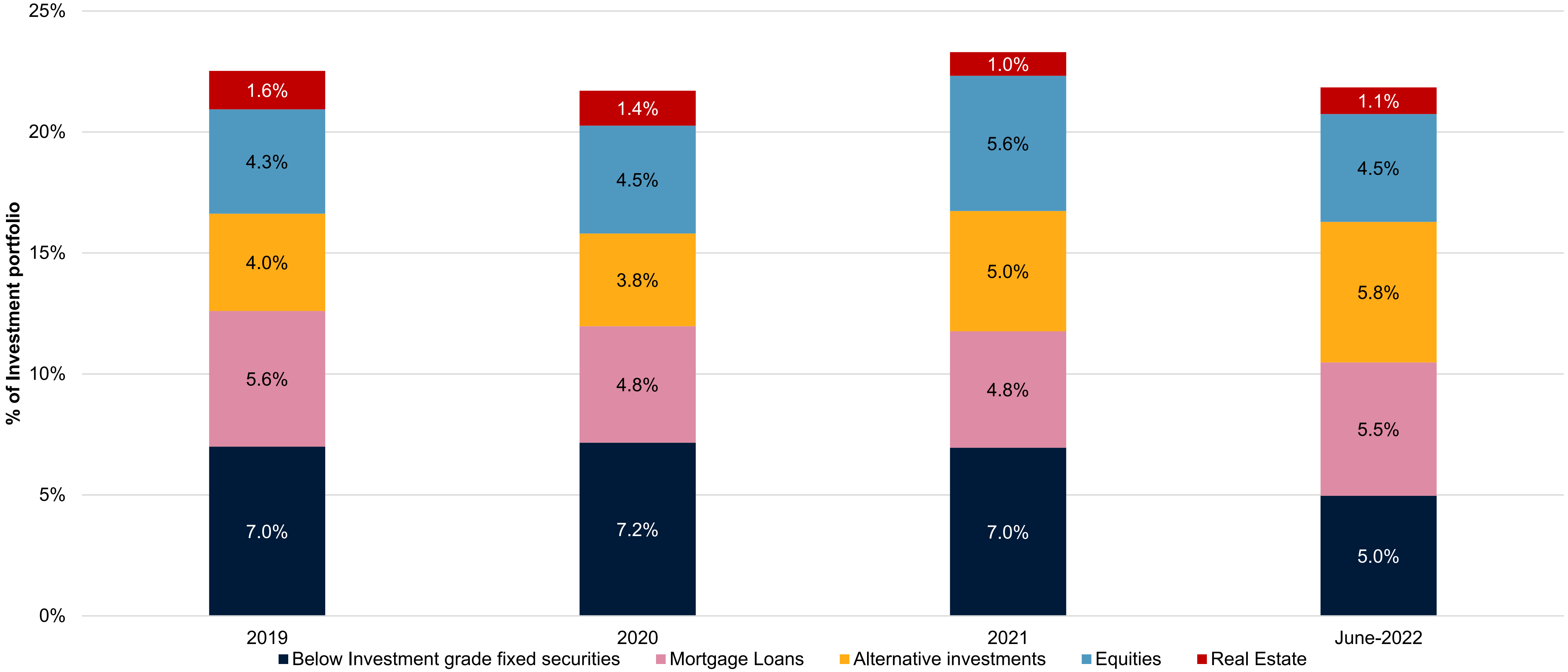
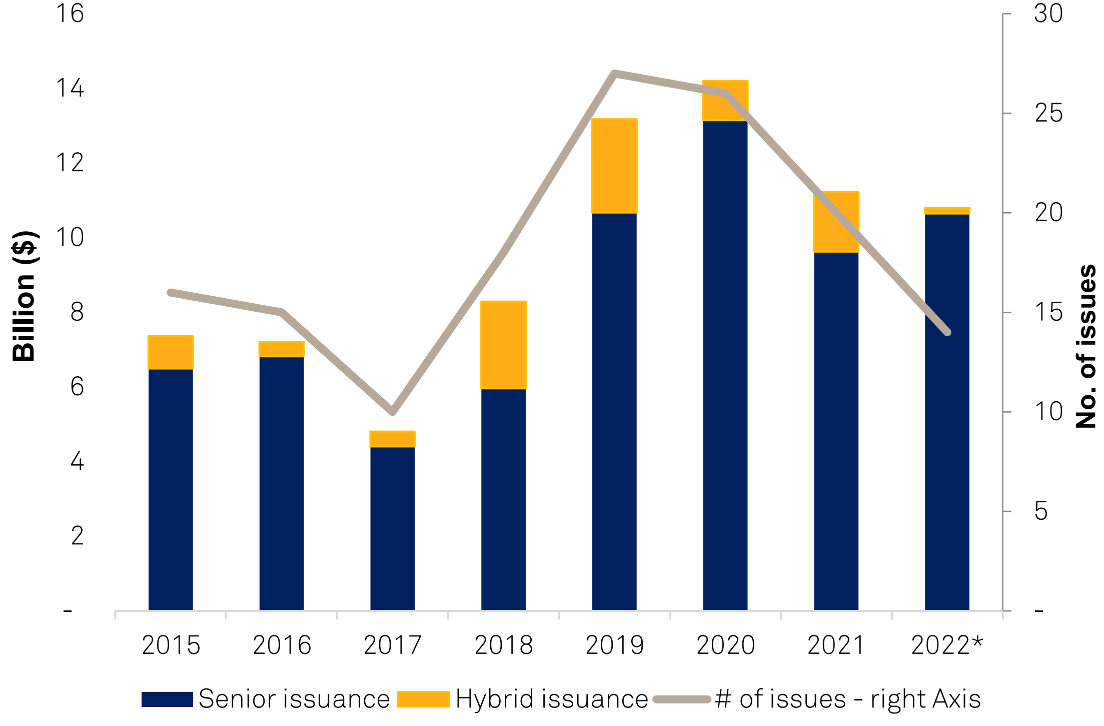
Select U.S. P/C Insurers: High Risk Assets



Methodology: Aggregate metrics.
Companies Included: ALL, AFG, AIG, CNA, THG, HIG, MKL, RLI, WRB, TRV, SIGI, KMPR, ORI, CB, PRA, LMIG, PGR, CINF
Source: SEC Fillings.

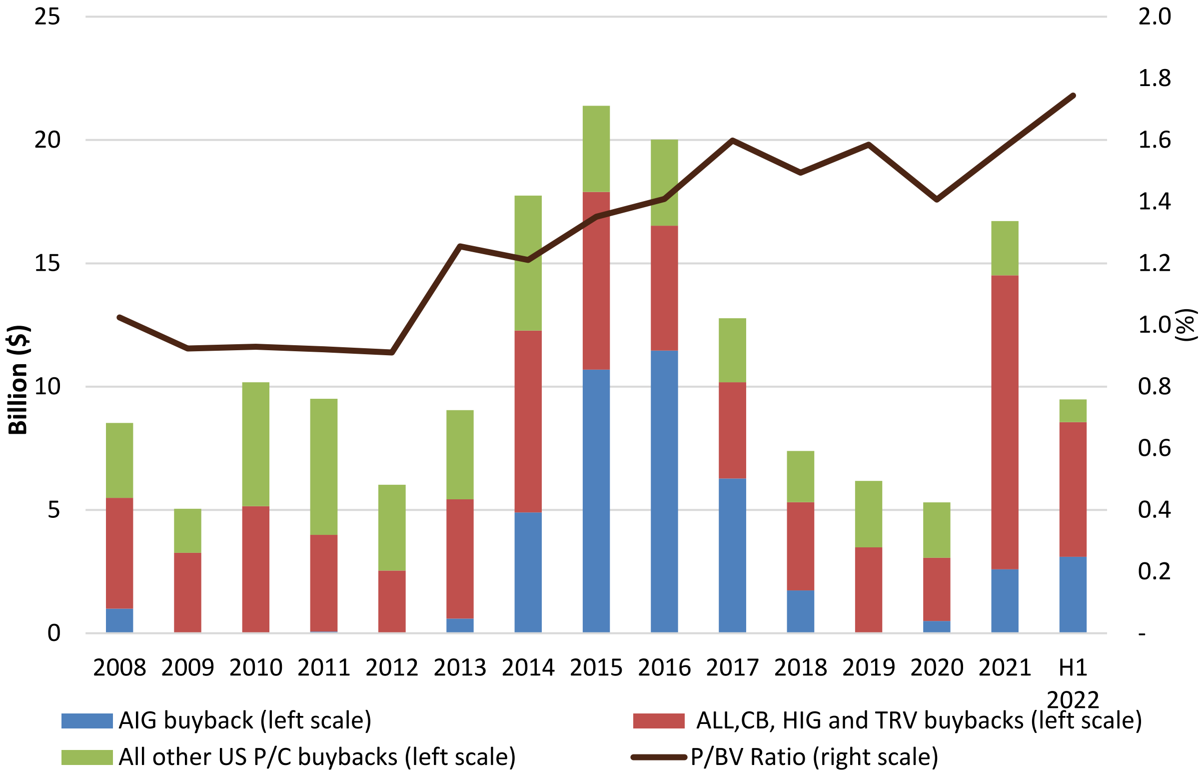
U.S. P/C Insurance: Capital Market Activity

Debt/Hybrid Issues



Source : S&P Global Ratings.
Number of issues on right axis.
*Rated issuance through 19 August 2022
*Includes $6.5bn of debt issued by AIG life subsidiary Corebridge Financial Inc.

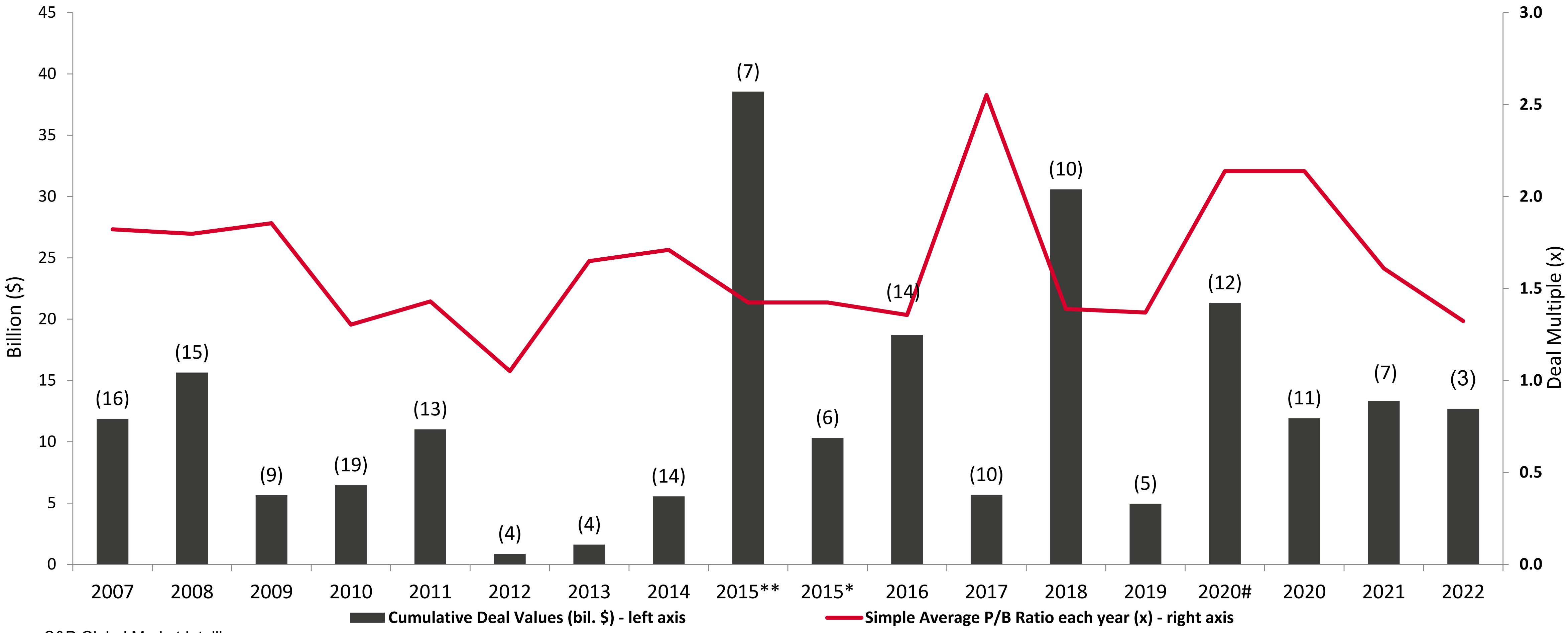
Share buybacks



Note:

1. Based upon cash flows from financing activities- Treasury stock acquired—Share repurchase authorization
2. The following companies are covered in the analysis : ORI, ALL, CB, ACE, MKL,SIGI, XL (prior to AXA acquisition), WTM, PGR, PRA, RLI, NAVG (prior to Hartford acquisition), TRV, AFG, AIG, CINF, CNA, THG, HIG, HCC (prior to Tokio marine acquisition), HMN, IPCC (prior to KMPR acquisition), WRB, KMPR, AIZ.
3. Excludes AIG's repurchase of shares held by the U.S.Treasury worth $13 billion in 2012.

U.S. P/C Insurance: M&A Activity



Source: S&P Global Market Intelligence.

Note: The numbers in parentheses are the number of deals for each respective year; *Excluding ACE-CB deal. ** Including ACE-CB deal.

#2020 data excluding acquisition of RSA Insurance Group PLC by Intact Financial Corp; and Tryg A/S ($9.3bn)

2022 Data as of August 19, 2022. Includes the announced acquisition of Alleghany Corp. by Berkshire Hathaway Inc. ($11.6 bil)

U.S. P/C Insurance: Negative Outlook Trigger

"Perfect storm" scenario--confluence of events that together impair capital:

– Very large catastrophe event (or multiple events)

– Spike in loss cost inflation hurting underwriting performance

– “Silent” coverages that could materially change risk exposures

– A sustained decline in capital markets eroding the value of invested assets

– Higher-than-expected corporate bond downgrades or defaults

Thank you!

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