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Fire & General (Re)Insurance Market Update

Financial Advice NZ Webinar

27 July 2022

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Introduction: Insurance and Capital



Dealing with Risk

"(Exposure to) the possibility of loss, injury, or other adverse or unwelcome circumstance; a chance or situation involving such a possibility. ... Risk is an uncertain event or condition that, if it occurs, has an effect on at least one [project] objective."

Accept The Risk	Avoid The Risk	Transfer The Risk	Mitigate The Risk	Exploit The Risk
Simply accept that it might happen and decide to deal with it if it does.	Change plans completely to avoid the risk.	Transfer the impact and management of the risk to someone else.	Probably the most commonly used risk management technique.	Acceptance, avoidance, transference and mitigation are great to use when the risk has a
Good strategy for very small risks – risks that won't have much of an impact on your project if they happen and could be easily dealt with if or	Good strategy for when a risk has a potentially large impact on you.	Insurance is a good example – if something happens, insurance can fund replacements, repairs or lost income.	Limit the impact of a risk, so that if it does occur, the problem it creates is smaller and easier to fix.	negative impact on the project. What if the risk has a positive impact?
when they arise. Good for where time and cost to put together an alternative risk management strategy is more than the potential cost of the risk outcome.	Good for where cost of accepting, transferring or mitigating is considered too expensive or unsustainable.	Good strategy for when we acknowledge that a risk event might happen, but we want to fund our response to it over time and not tie up capital "just in case" it happens.	You can mitigate against the likelihood of a risk eventuating (ie reducing frequency) or mitigate against the impact of the event if it does occur (ie reducing severity).	Exploitation is the risk management strategy to use in these situations – Look for ways to make the risk happen or for ways to increase the impact if it does.
		"just in case" it happens.	Or do both!	

- 1. Transferring Risk through (Re)Insurance does not Avoid the risk
- 2. Mitigating Risk is an essential element to reducing the Risk Transfer price and/or enhancing appetite for the

Risk Transfer mechanism

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The Role of Capital in Risk Transfer

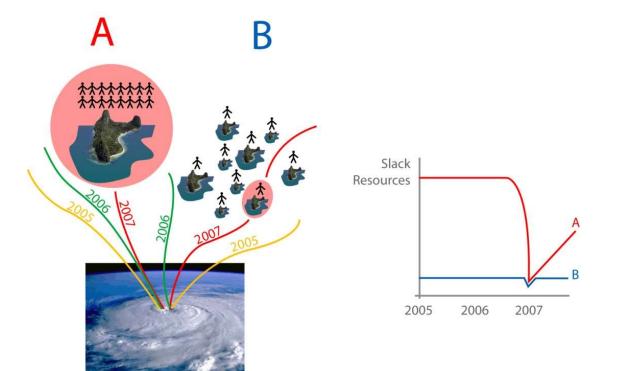
Consider two population distributions on islands in an ocean:

- (A) 1,000 people on one island
- (B) 1 person on each of 1,000 islands

Assume hurricanes hit one island/year, no two islands are hit in one year

(A) is less efficient than (B), because the (A) economy must maintain considerable slack resources to rebuild.

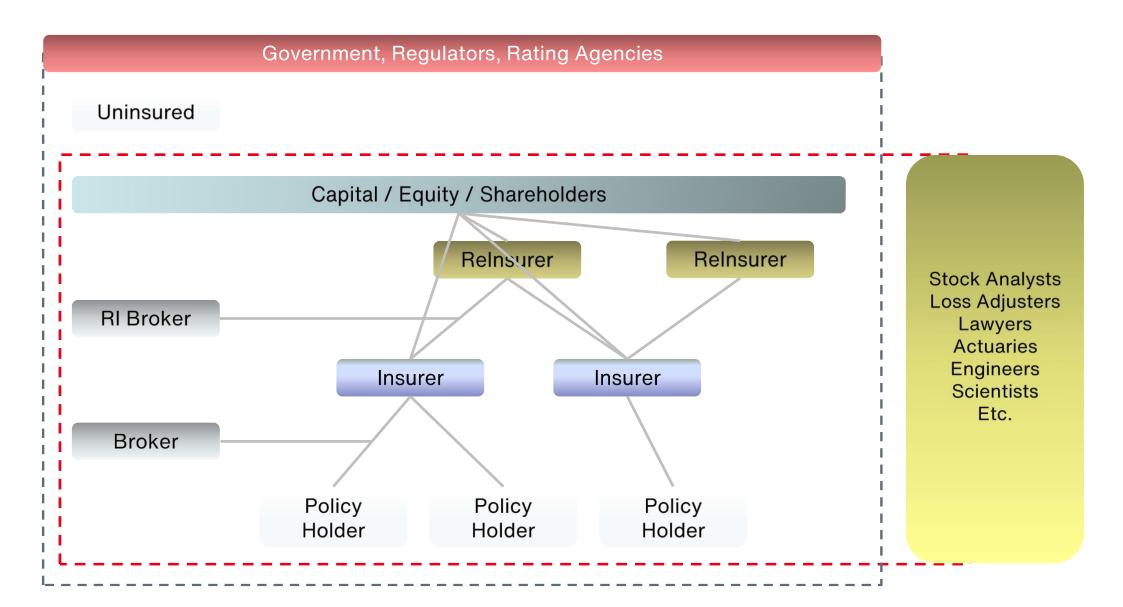
- This scenario applies to
 - Individual Insureds & Insurance
 - Insurers & Reinsurance
- "The premiums of the many pay for the losses of the few"



NOTE

- 1. Resources = Capital
- 2. Insurance = Contingent Capital

Insurance and Reinsurance



(Re)Insurance: Key Supply & Demand Drivers

Capital Supply Drivers

- Inflation
- Economic and financial markets
 uncertainty
- Lack of retrocession coverage
- Climate change
- Poor underwriting results

Reinsurance Demand Drivers

- Inflation
- Increased catastrophe loss activity
- Model miss
- Frequency of secondary perils
- Investor concern on catastrophe volatility

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Underwriting Results



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Global Reinsurer Capital

- Aon estimates global reinsurer capital totalled \$660bn at September 30, 2021, an increase of \$10bn relative to the end of 2020 driven mainly by retained earnings.
- Traditional reinsurers continue to be strongly capitalised, but catastrophe risk appetites are now being reduced in some cases.
- 'Active' alternative capacity at the January renewals is estimated to have reduced by 20-25% year-on-year
 - Losses, trapped collateral and redemptions impacted the collateralized reinsurance and retrocession markets.
 - Investors continue to value the liquidity and transparency of cat bonds issuance set new records in both 2020 and 2021.
 - Investor fatigue is evident after five years of poor results

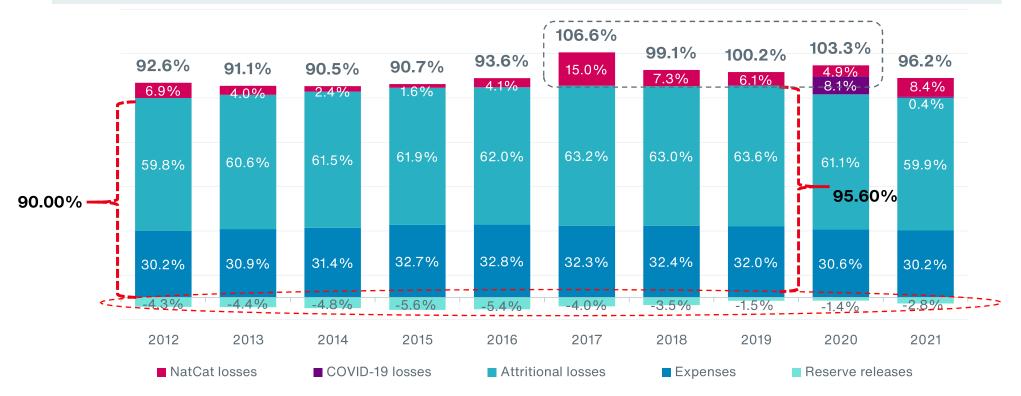


Source: Company reports, Aon Business Intelligence, Aon Securities

Reinsurer Earnings Pressured since 2017

... Aon Reinsurer Aggregate (ARA) Combined Ratio Analysis

- 2021: The net combined ratio stood at 96.2%, despite 2021 being the 4th most expensive year for insured NatCat losses*.
- The average combined ratio since 2017 stands at 101.1%; these are 5 of the 7 most expensive years for insured NatCat losses*.
- Attritional & Expense Ratios back to 90% ... having peaked at 95.60% in 2019
- Deteriorating trend of Reserve Releases ... but slight improvement in 2021

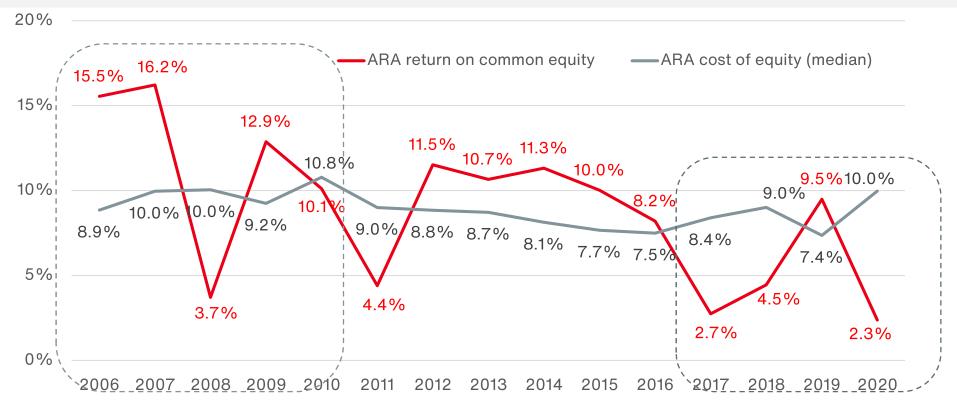


Note:* Based on Aon Catastrophe Insight data.Source:Aon / company reports.

Reinsurer Earnings Pressured since 2017

... Aon Reinsurer Aggregate (ARA) Return on Equity Analysis

- The return on equity dipped to 2.3% in 2020, substantially below the median cost of capital at the year-end, as calculated by Bloomberg
- Over the last five years, ARA return on equity averages 5.4% Under-performance driven by
 - Record period for natural catastrophe losses, Prior year reserves developing less favourably
 - Major losses, soft market, social inflation, Increasingly expensive retro protection, Historically low interest rates, Impact of COVID-19

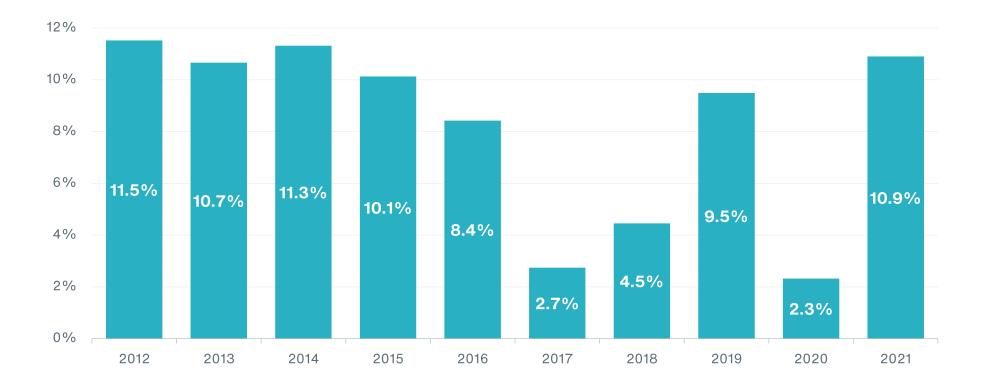


The ARA constituents are Alleghany, Arch, Argo, Aspen, AXIS, Beazley, Everest Re, Fairfax, Hannover Re, Hiscox, Lancashire, Mapfre, Markel, Munich Re, PartnerRe, QBE, Qatar Insurance, RenRe, SCOR, Sirius, Swiss Re, Third Point Re and W.R. Berkley. Sirius merged with Third Point Re to form SiriusPoint effective February 26, 2021. Reinsurance Solutions | Australia & New Zealand

Reinsurer Earnings Pressured since 2017

... Aon Reinsurer Aggregate (ARA) Return on Equity Analysis (2)

• The ARA reported a return on equity of 10.9% in 2021, taking the five-year average to 6.0%.



Note: * Net income attributable to common shareholders, relative to average common shareholders' funds. Source: Aon / company reports.

Reinsurance Sector Results



Sources: Company financial statements / Aon's Business Intelligence

Underwriting results were generally strong during the period, but investment returns were undermined by equity markets volatility, linked partly to Russia's invasion of Ukraine.

- Interest rates rose to counter growing inflationary pressures, resulting in unrealized losses on bond portfolios, while weak stock markets reflected the deteriorating economic outlook.
- Most reinsurers continued to report robust property and casualty (P&C) premium growth in the first quarter of 2022, aided by strong demand and rising rates.

3

Catastrophes: Frequency & Volatility



Natural Catastrophe Losses

... 2021 Weather, Climate & Catastrophe Insight



\$343 billion

27% above the 21st Century average



50 billion-dollar economic loss events (4th highest on record) \$130 billion

Insured Loss

76% above the 21st Century average



71% of global insured losses were recorded

losses were recorded in the United States

20 billion-dollar insured loss events (4th highest on record) 送 401 number of notable disaster events

§ • \$36 billion

insured loss from Ida, $3^{\rm rd}$ costliest hurricane on record for insurers

♀ \$17 billion

insured loss from winter weather; costliest year on record for this peril

≋ **\$13 billion**

insured loss from European floods in July, the costliest disaster on record for the continent

Germany, Belgium Austria, Luxembourg, and China

recorded the costliest insurance industry events on record

ର୍<u>ଧ</u> 2,248

number of fatalities from Haiti Earthquake, deadliest event of 2021

☆ 0.84°C (1.51°F)

Above the 20th Century Average (NOAA): World's sixth-warmest year on record for land and ocean temperatures dating to 1880

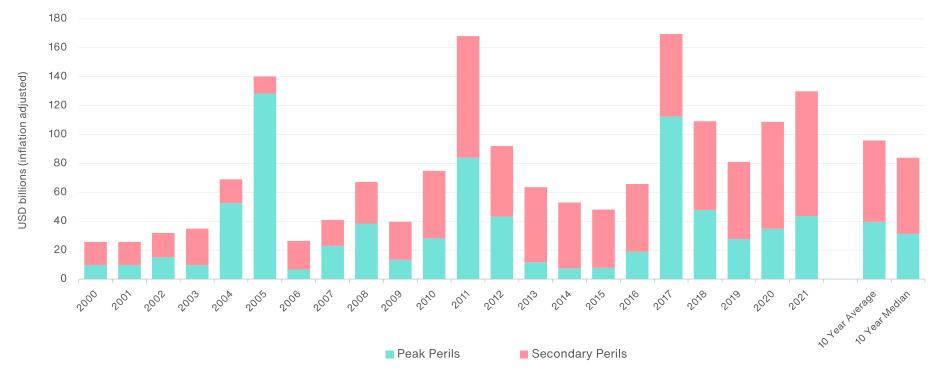
54.4°C (130.0°F)

Temperature on July 9, 2021 in Death Valley, California (USA); unofficially the hottest temperature ever reliably measured on Earth

Global Insured NatCat Losses

... The rise and rise of Secondary Perils

- Aon estimates insured losses from 2021 NatCat events at \$130bn, taking the five-year total close to \$600bn.
- This includes Winter Storm Uri at \$15bn, the European floods (Bernd) at \$13bn and Hurricane Ida at \$36bn.
- Annual losses from less well modelled 'secondary perils' are on a clear upward trend.
- Over the last two years, the global (re)insurance industry has also absorbed ~\$45bn of losses related to COVID-19.



Peak Perils comprise Tropical Cyclone, European Windstorm and Earthquake. Secondary Perils comprise Severe Convective Storm, Flooding, Drought, Wildfire, Winter Weather and Other.

Source: Aon Catastrophe Insight, January 31, 2022.

Natural Catastrophe Losses ...

... No surprises (CNN Events)





Sydney Hail event (likely an AUD 1.75 bio loss) was not a CNN event!

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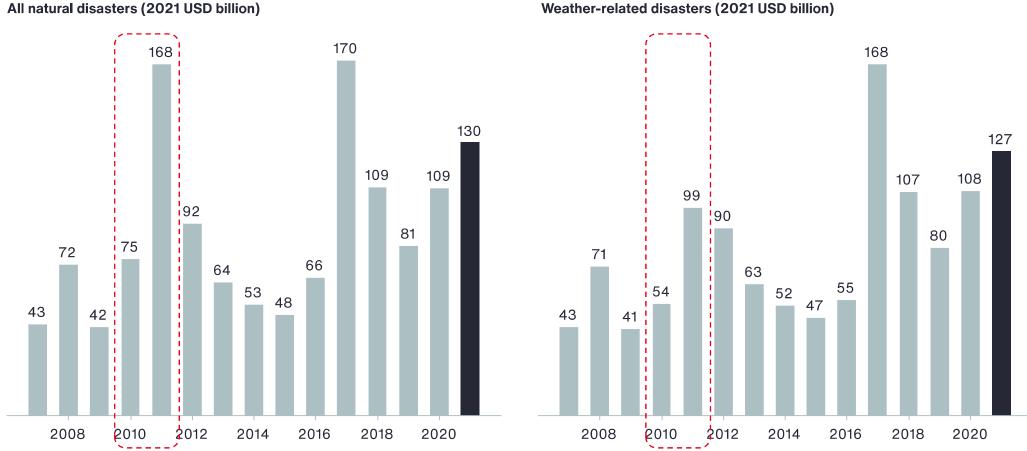






Global Insured NatCat Losses

... Natural Disasters v Weather-Related



All natural disasters (2021 USD billion)

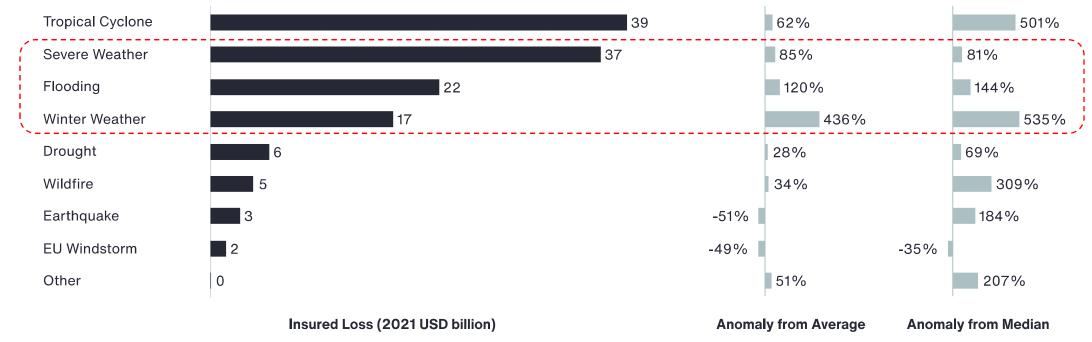
Data: Aon (Catastrophe Insight)

Notes

• 2010 and 2011 show "EQ" impact ... all others are all weather ...

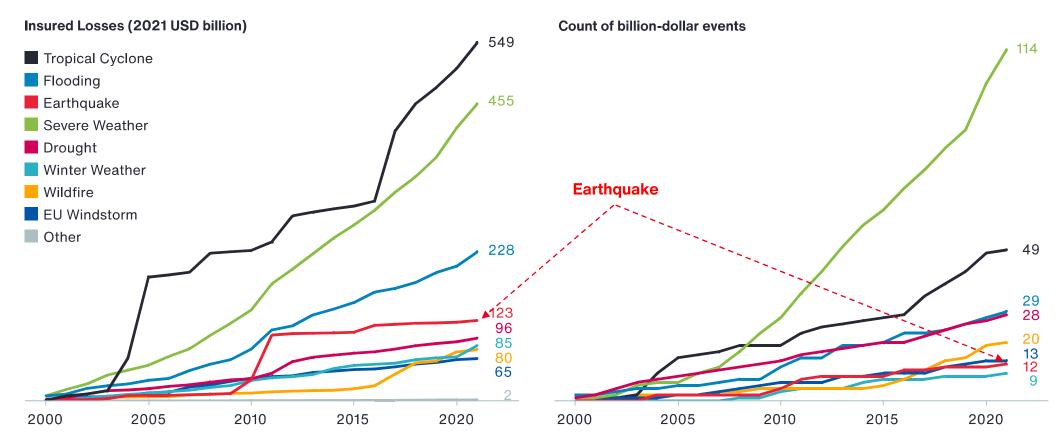


Global Insured Losses by Peril



Data: Aon (Catastrophe Insight)

Cumulative Insured Losses by Peril

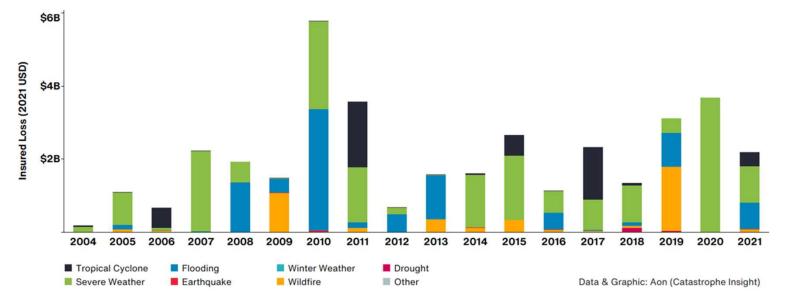


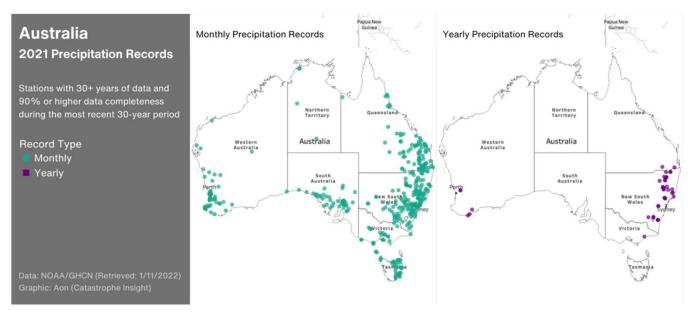
Data: Aon (Catastrophe Insight)

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Natural Catastrophe Losses (Australia)

- Impact Forecasting analysis of Insured Losses for Australia again show the dominance of weather-related perils.
- In 2021, a number of locations in Australia recorded Monthly and/or Yearly Precipitation records.





Source: Aon Catastrophe Insight, 6 January 2022.

4

Inflation



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Inflation Summary

COVID has changed both supply and demand

Supply Changes

Uncertainty about future demand caused producers to halt or reduce production of a wide variety of goods. Lockdowns and COVID precautions also limited production capacities

Inventory and resources were sold off to generate cash flow (Hertz is a prime example)

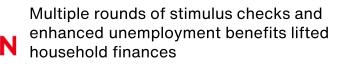
General expectation was for a decrease in demand across most sectors

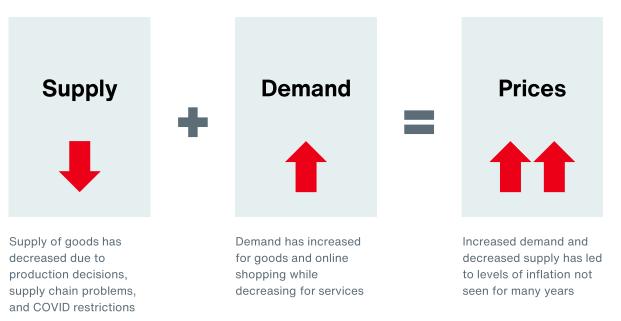
Demand Changes

Aside from some select products (toilet paper, Clorox wipes, etc.), there actually was an initial decrease in demand for a few months. Then demand skyrocketed.

Economy transformed practically overnight and so did demand for:

- Building materials for new homes, additions, and home office rehabs as people stayed home
- Used cars as comfort with mass transit disappeared





Demand for goods has surged since March of 2020

Mix of expenditures has shifted towards more goods than services

Overall amount of spending is now about 15% more than pre-pandemic levels, but the distribution between goods and services has changed

Starting with the lockdowns in spring of 2020, consumers shifted their spending away from services (e.g. restaurants, travel, shows, etc.) and towards goods (e.g. toilet paper, home office equipment, new clothes, etc.)

The shift towards goods caught producers and shippers by surprise and they have struggled to catch up

Shift towards goods has persisted even after most COVID restrictions have been lifted

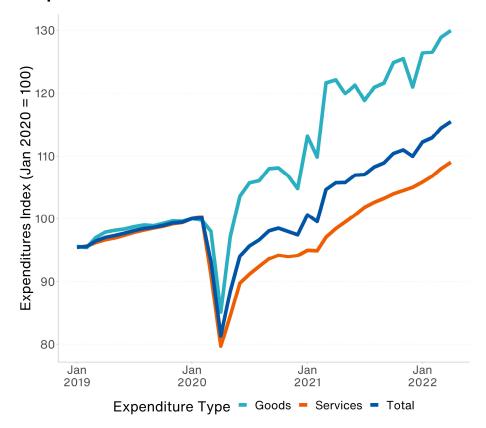
There are some signals this might be changing with retailers now carrying high inventory loads of some goods

Uncertainty around future services spending on the impact on inflation

Services spending is accelerating as wage increases come into effect and more services resume normal operations

If services spending catches up with goods spending, inflation is likely to persist

Services prices are more often driven by wage prices, so further inflation there is possible



Expenditures on Goods and Services

(Re)Insurance Pricing

disruption

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... Cost Inflation Impact/Considerations

pricing this year

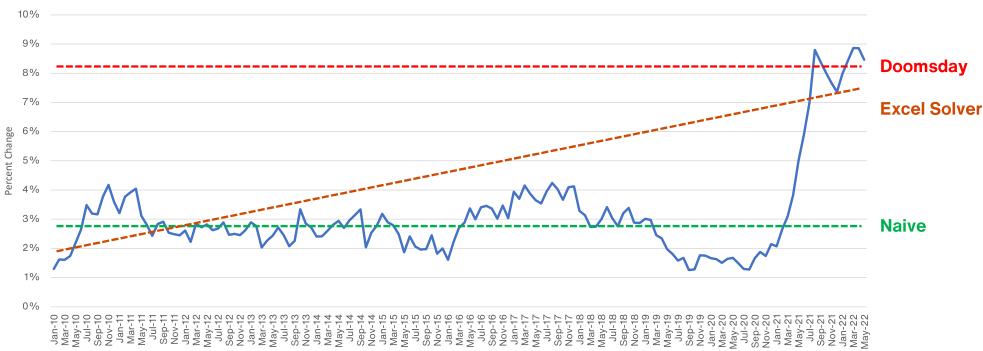
What is it	Reinsurer View	Insurer Defence?	(Optimistic) Conclusion!
 Significant cost inflation observed in US/Europe this year - reinsurers have raised concerns over rising claims costs, and will be pushing for price increases to reflect this Inflation caused by labour shortages, supply chain issues, the cost of supplies and rising energy prices. A major factor driving increasing construction costs has been supply chain disruption to raw materials, resulting in more expensive construction as well as delayed projects COVID and Brexit have also had the effect of a "one-off" 	 Initial response that cost increases are being absorbed by suppliers due to tight contractual obligations with insurers will be challenged by reinsurers: Suppliers cannot continue to absorb increases - eventually, contracts will have to be renegotiated or suppliers will fail Supplier contracts that come up for renewal over the next year will need to reflect higher costs unless they begin to abate Reinsurers have commented they will be looking to apply a higher inflation figure on their 	 We will argue that this inflationary period is short-term in nature, with inflationary pressures dropping away next year, and as such premiums should not rise accordingly Additional stats around claims size and exposure (Solar Panels) Is Insurer seeing any change in their claims management and reserving/estimates? Demonstratable evidence is key! 	 The high rates of inflation witnessed around the world are completely normal in a post- recession period. During the pandemic, the fall in commodity prices followed by the rapid recovery has had the effect of a rapid rise in inflation. Short term fluctuations have so far been largely absorbed by suppliers and as the cost pressures are expected to reduce going into 2022, the current arrangements remain sustainable. There is no need to raise reinsurance premiums as these are unusual short term fluctuations which we believe will ease substantially in 2022, meaning

that current pricing levels are still

appropriate.

Picking a trend rate is more nuanced than ever

Using a single flat trend rate is ok in a stable environment, but can produce a large miss in an inflationary environment



ENR Construction Cost Index - 1 Year Change

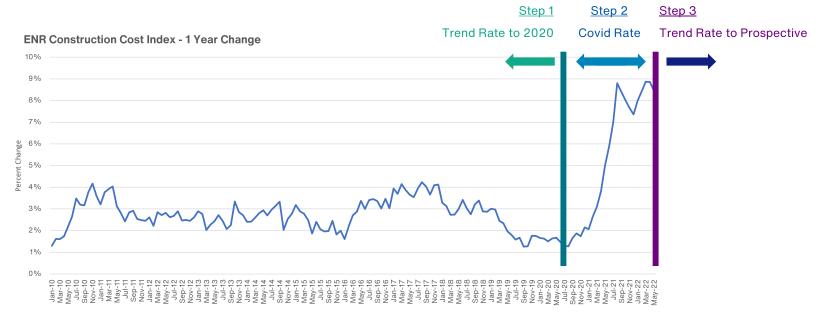
How long will high inflation continue?

Uncertainty supports a three-step method or an index

Inflation is expected to moderate over the next 1 to 2 years to levels that are higher than pre-COVID years but less than what we saw in 2021.

Commentary & expectations at the start of 2022:

- Building material prices have leveled off over the second half of 2021, supply chain disruptions are easing, and shipping costs are beginning to recede
- The Federal Reserve is aggressively fighting inflation through large, sustained rate hikes
- Consumers expect broad inflation is expected to be around 5-6% over the next year but return to pre-COVID levels soon thereafter
- The Federal Reserve expects broad inflation to be ~5% in 2022 and Wall Street is indicating an inflation rate of ~3% over the next 5 years
- Conflict in Ukraine has led to a burst of higher inflation as sanctions and supply chain disruptions come into effect



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Rating Agencies



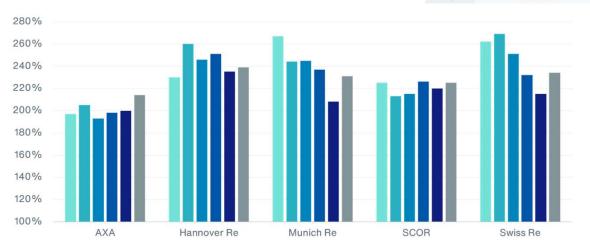
Rating Agencies

... Robust capital levels

Capital Adequacy is Robust ...

- Recent record period for NatCat losses
- Prior year reserves developing less favourably
 - Major losses, soft market, social inflation
- Increasingly expensive retro protection
- Historically low interest rates
- Impact of COVID-19

Rank	Reinsurer	AM Best		Standard & Poor's	
nalik	nemsurer	Core FSR	Capital Adequacy	Core FSR	Capital Adequacy
1	Munich Re	A+	Strongest	AA-	AAA
2	Swiss Re	A+	Strongest	AA-	AA
3	Hannover Re	A+	Strongest	AA-	AA
4	Lloyd's	А	Strongest	A+	AAA
5	Berkshire	A++	Strongest	AA+	AA
6	China Re	А	Strongest	А	BBB
7	Everest Re	A+	Strongest	A+	AAA
8	GIC Re	B++	Strong		
9	SCOR	A+	Strongest	AA-	AAA
10	AIG (Validus)	А	Strongest	A+	AA
11	Korean Re	А	Strongest	А	BBB
12	AXA XL	A+	Very Strong	AA-	AA
13	PartnerRe	A+	Strongest	A+	AAA
14	TransRe	A+	Strongest	A+	AAA
15	RenRe	A+	Strongest	A+	AAA



Solvency Ratios ...

• Remain well above target levels

■ 2016 ■ 2017 ■ 2018 ■ 2019 ■ 2020 ■ 9M 2021

The top 15 non-life reinsurers wrote \$152bn of gross premiums in 2020, representing around two-thirds of the global market. Data correct as at January 20, 2022.

Rating Agencies

... Sector outlooks

Sector	AM Best	Fitch	Moody's	S&P
Commercial	Negative	Improving	Stable	Stable
Personal	Stable	Improving	Stable	Stable
Global Reinsurance	Stable	Improving	Stable	Negative
Life & Annuity	Negative	Negative	Stable	Stable
Health	Stable	Stable	Stable	Stable

- Moody's and S&P maintain stable outlooks on Commercial Lines segment as fears of COIVD-19-related claims and economic slow-down impact on premiums and unemployment rates were offset by manageable claims and continued strong rate increase across most lines of business. AM Best remains negative primarily driven by uncertainty from COVID-19 in conjunction with a return to pre-pandemic exposure levels boosting social inflation and rising reinsurance costs;
- Personal Lines segment outlook is reflective of profitable underwriting performance, strong risk-adjusted capitalisation and 2020 Underwriting Results benefiting from reduction in claims frequency due to COVID-19 imposer driving restrictions. Offsetting positive factors are rising reinsurance costs, continued catastrophe losses from major storms and secondary perils such as convective storm and wildfires;
- Strong Capitalisation levels. Moody's and Fitch ratings on **Reinsurance** revised due to continued strong pricing and global economic recovery impacts. AM Best also cites positive rate momentum, tighter underwriting conditions, increased demand for reinsurance and strong market capitalisation of the segment. S&P, however, are negative primarily due to reinsurers' inability to generate risk-adjusted returns above their cost of capital and their thinning reserve margins. All agencies note the long-term challenge posed by climate change.

Rating Agencies ...

Non-Life Reinsurance Sector Outlooks: Example Rating Update (Scor)

S&P Global : Negative Outlook

- The negative outlook first assigned in May 2020 was confirmed in November 2021
- S&P believes the sector will not earn its cost of capital in 2021 and could struggle to do so in 2022
- Capitalization remains robust, with redundancy at the 'AA' confidence level, benefitting from capital raises and financial markets' recovery

SCOR : Negative Outlook

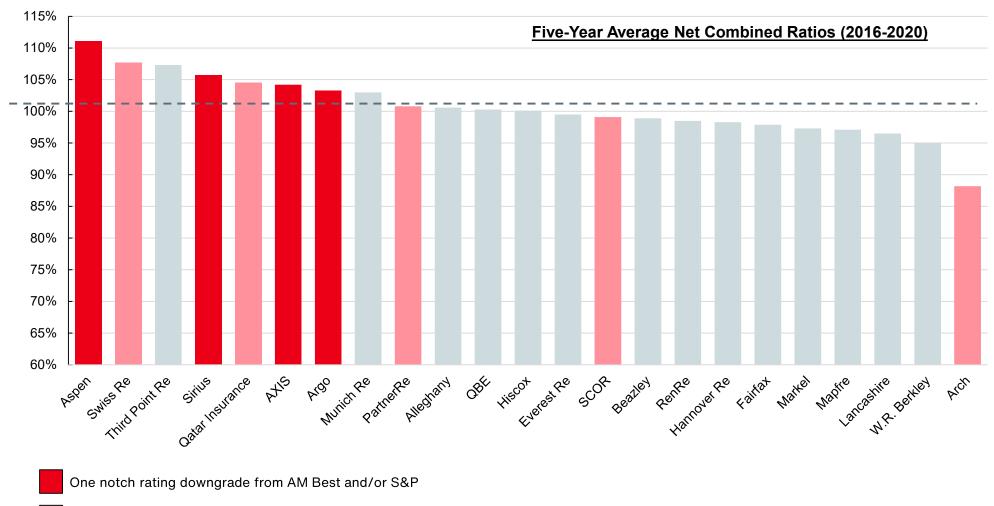
S&P: France-Based Reinsurer SCOR SE Outlook Revised To Negative On Lower Than Expected Earnings; 'AA-' Ratings Affirmed

January 31, 2022

- In the past five years, SCOR SE's earnings have been lower than expected and we assume the same for 2021, with the company falling short of its closest peers again based on performance in the first nine months.
- In our view, SCOR will benefit from price increases in its global property/casualty reinsurance business and its market leading position, particularly in the life reinsurance market.
- However, we also believe that uncertainty regarding the turnaround of its underwriting performance persists.
- Therefore, we revised the outlook to negative from stable and affirmed all our ratings on SCOR's core operating subsidiaries
- The negative outlook indicates the possibility that we could lower the ratings by one notch if SCOR's earnings performance does not improve broadly in line with our expectations.

Rating Agencies ...

... Actions Correlate strongly with weak Underwriting Results



Negative outlook from AM Best and/or S&P

6

"Outlook"



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Property Reinsurance Market Themes

Market Dynamics

Evolving Reinsurer Capacity	Upwards Shift in RI Appetite	Investor Pressure	Challenging Retro Market	Late Renewal Timing
 Capacity sufficient but reinsurers more disciplined in deployment Deployable collateralized capacity down materially due to trapping and redemptions Cat Bond market momentum continued with record \$12.5B issuances in 2021 Larger quote spread in loss- impacted regions 	 Reinsurers shifted capacity to mid and upper cat layers where possible Reduced appetite for lower, frequency layers and aggregates Pressure on retentions and loss impacted layers 	 Reinsurers and primary carriers both seeking to reduce volatility / earnings misses in order to deliver against shareholder expectations Limited appetite for future "surprises" CNN Events 	 Retro market proved challenging with limited capacity and rate hikes Investor fatigue and concerns over model miss after >\$100B global cat losses in 2021 may limit future new capacity inflows 	 1/1 programs late to market following HU Ida Some reinsurers unresponsive early due to uncertainty in their own retro programs and pricing

View of Risk

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Claims Inflation	Secondary Perils and Climate Change
 Social and economic inflation a key topic among reinsurers 	 Markets adjusting 'view of risk' for increased severity and frequency of secondary / poorly modelled perils
 Adjustments to inflation made in reinsurer pricing models 	 Reconsideration of flood following European losses
Continued loss creep from 2020 events Pricing	 "New normal" of heightened activity bolstered by December tornado events
	Secondary Perils

June Outlook ...

- January property trends are expected to remain in focus and to "continue" throughout the remaining 2022 renewals.
- Secondary Perils is a major focus for all reinsurers
- Claims inflation now also a priority item to "address" in terms of renewal positioning (eg how is it impacting cedant losses, what is outlook, what is unique client position on this issue)
- Pleasingly, no new wording/coverage issues of note once Cyber and Infectious Disease addressed.

Summary

General Property & Casualty Market Outlook

The operating environment is expected to remain tough for the foreseeable future

The hardening market is being driven by the need to improve earnings

There is ample capacity, but reinsurers are being more discerning in how they deploy it

There is little sign of new capital entering the market for 2022

Reserving risk, concerns around climate change and low interest rates will underpin underwriting discipline. Consideration of Inflationary impact (short and medium term) is a priority for all underwriters.

Under-performers are contending with activist investors and pressure from rating agencies

Underwriting appetites are changing; threats to withdraw catastrophe capacity if rates do not increase

At the present time, the prospect of higher rates does not appear to be enough to out-weigh investor fatigue after 5 years of major losses



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