



COP 26: Takeaways for Actuaries

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12 January 2022



Agenda and disclaimer

We will be discussing:

Week 1 of COP26

- Financing our future
- Role of the insurance industry
- Action on Forest and land use

Week 2 of COP26

- Physical Risks and actions
- Fair pricing/the protection gap
- New technologies and risks

The COP26 Agreement

- Summary of Key Points
- Limitations of agreements made

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Poll 1



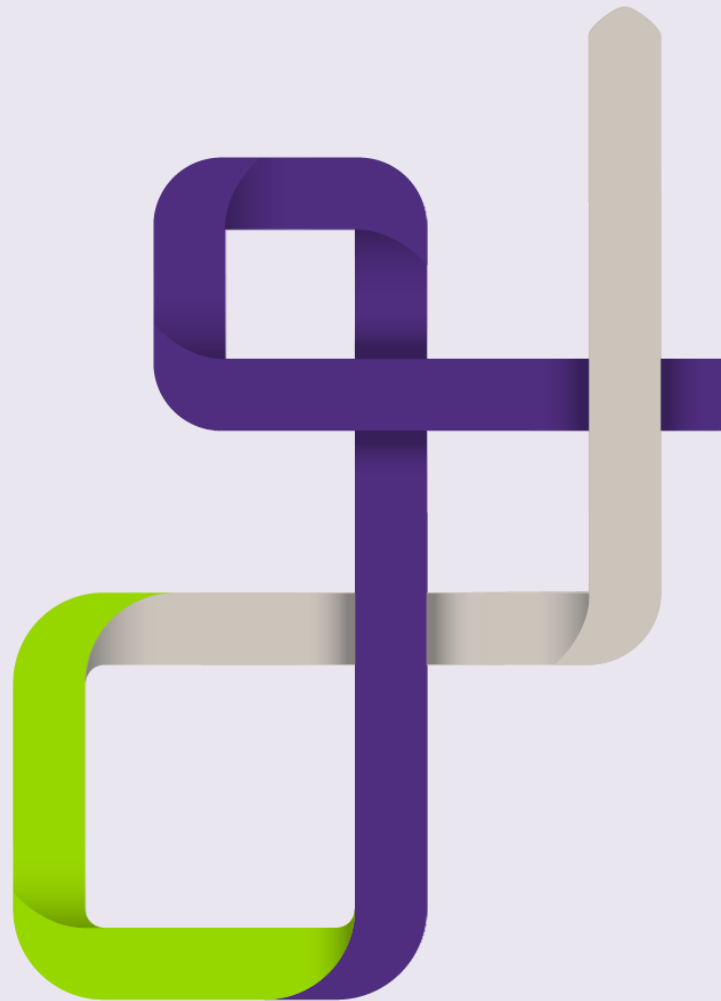
COP26 - Week 1

Notable days

2nd November - World Leaders' Summit

3rd November - Finance Day

4th November - Energy Day



Timeline of key events – Week 1

- Very relevant to insurance industry
- Somewhat relevant to insurance industry
- Fewer implications on insurance industry

Action on forests & land use

Better air quality and reduced NatCat risks

Financing our future

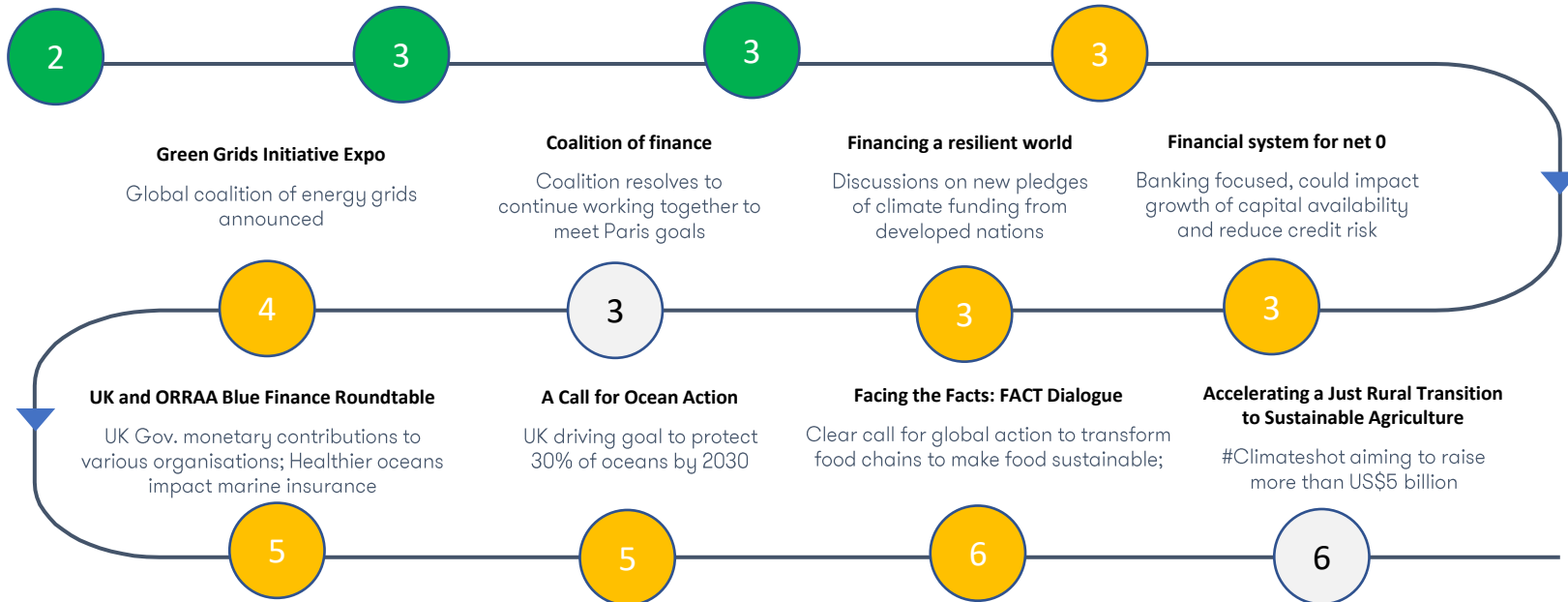
Investment promises made & Net 0 aligned financial centre announced

Insurance Industry: Climate leaders or climate laggards

Changes in portfolio mix likely to impact pricing, reserving and B-plan strategies

Pensions with Impact

UK pension pots = 25% of world pensions, no greenwashing to be tolerated



Theme 1 – Financing Our Future



To support the 1.5 degrees goal, the COP26 forum took decisive steps to support a sustainable financial system, money commitment to climate change and strategic deployment of capital.

What was discussed?

- IMF **increased public investment**, \$650 bn. Special drawing rights (SDRs) to developing countries
- **UK pledging \$100 mn.** to Task Force on Access to Climate Finance
- New capital markets mechanism to **issue green bonds in UK** to fund renewable mechanisms in developing countries
- Glasgow Financial Alliance for Net Zero (GFANZ) brought together organisations with assets worth over **\$130 tn. of capital** to be deployed
- UK made it mandatory for firms to set up plans on how they plan to move to carbon net zero, and report disclosures

What should I be thinking about as an Actuary?

- Recovery of developing economies – opportunity to diversify portfolio
- Climate-related insurance products for adaption climate risk loss
- Diversification in investment classes for long-tailed businesses
- Changes in interest rates assumed for developing economies
- Change in climate-risk attitude in the UK, greener practices, and revised assumptions for pricing, reserving and capital modelling
- Change in underwriting mix to reduce Scope 3 carbon exposures
- Frameworks in place to prepare reports and disclosures on climate risks
- Data collection and metrics to support disclosures and net-zero roadmap
- Scenarios to be considered for planning a net-zero roadmap

Theme 2 – Role of the Insurance Industry

A background of the role of insurers



New developments of oil and gas fields or coal power stations provide a significant hindrance to the 1.5°C goal. The Insurance industry has the power to catalyse the transition to a low-carbon world.



Without renewed insurance, fossil fuel projects shall find it difficult to strive, and the growth in the fossil fuel sector can be curbed if the significant investments from insurers stop flowing in.



Insure-our future published a scorecard that considers the 30 leading insurers' response to climate risk in relation to their policies on divestments from non-green assets, underwriting of risks for non-green projects, and providing coverage for oil and gas undertakings. On a scale of 10, the best insurers scored below 5

What was discussed?

- There has been some good progress on **phasing down coal** as compared to oil and gas. 35 coal exit policies vs 3 oil and gas exit policies announced, however, an allowance for exceptions exists
- UN convened **Net Zero Insurance Alliance (NZIA)** brings together world's leading insurers and reinsurers to play their part in the transition to net-zero. 4 of the biggest insurers, all founding members of NZIA provide **20% of global oil and gas insurance** at present.
- Members of the NZIA individually committing to **transition their underwriting portfolios** to net-zero greenhouse gas emissions by 2050
- Insurers can play a key role in measuring and mitigating risk, working with governments to manage it, and providing cover for new systems to handle climate change
- AXA XL announced a new innovative tool that integrates the protective benefits of coastal ecosystems into insurance risk models for flood hazards.

Theme 2 – Role of the Insurance Industry

Insure our Future 2021 Insurers Scoreboard

INSURER	COUNTRY	Fossil Fuel Insurance		Fossil Fuel Investment		Other Climate Leadership	
		RANK	SCORE (0-10)	RANK	SCORE (0-10)	RANK	SCORE (0-10)
Allianz		1	4.7	3	4.4	2	4.5
AXA		2	4.6	1	5.4	3	4.0
AXIS Capital		3	3.9	4	3.5	11	0.0
Swiss Re		4	3.6	4	3.5	4	3.8
Zurich		5	3.2	6	3.3	5	3.5
Hannover Re		6	3.2	12	1.1	11	0.0
Mapfre		7	2.8	8	1.7	10	0.7
Generali		8	2.6	7	2.9	7	3.3
SCOR Re		9	2.1	1	5.4	8	3.1
QBE		10	2.1	13	1.0	9	2.2
Aviva		11	1.8	23	0.1	1	5.0
Munich Re		12	1.8	9	1.6	6	3.5
HDI Global		13	1.3	9	1.6	11	0.0
The Hartford		13	1.3	11	1.5	11	0.0
Tokio Marine		15	1.2	16	0.4	11	0.0
Lloyd's		16	0.9	16	0.4	11	0.0
MS&AD		17	0.8	16	0.4	11	0.0
Samsung FM		17	0.8	16	0.4	11	0.0
Chubb		19	0.7	15	0.6	11	0.0
Liberty Mutual		20	0.4	14	0.8	11	0.0
Ping An		21	0.2	16	0.4	11	0.0
Sompo		21	0.2	16	0.4	11	0.0
W.R. Berkley		23	0.0	16	0.4	11	0.0
AIG		23	0.0	24	0.0	11	0.0
Berkshire Hathaway		23	0.0	24	0.0	11	0.0
Convex		23	0.0	24	0.0	11	0.0
Everest Re		23	0.0	24	0.0	11	0.0
PICC		23	0.0	24	0.0	11	0.0
Sinosure		23	0.0	24	0.0	11	0.0
Travelers		23	0.0	24	0.0	11	0.0

Source: [2020 Insurance Scorecard on Fossil Fuels and Climate Change - Insure Our Future \(insurance-scorecard.com\)](https://www.insurance-scorecard.com/)

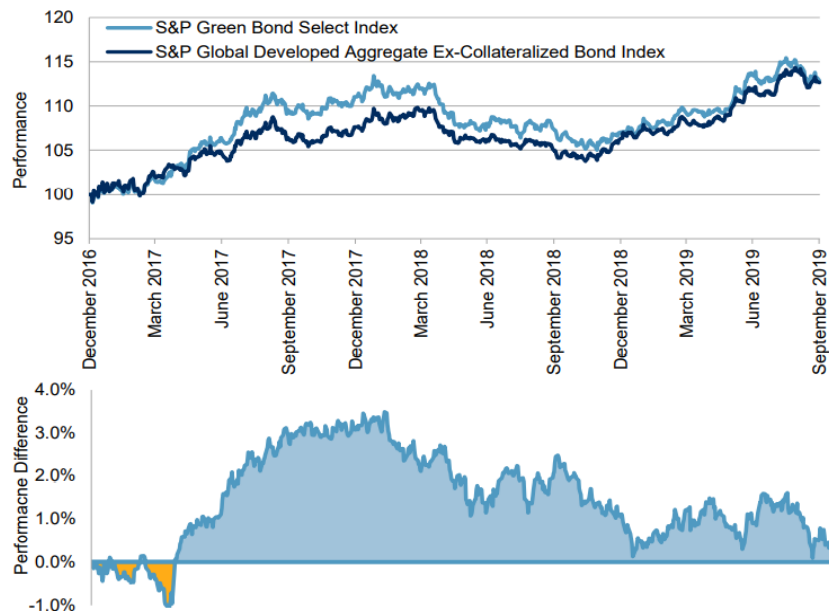
What should I be thinking about as an Actuary?

- Reputational risk to one's organisation if they prop up the fossil fuel sector
- Impact of divestment and exit policies on existing client relations
- Changes in investment rate assumptions, alternative assets for investments, transaction expenses assumptions
- Availability of re-insurance and rise in re-insurance premiums for existing coverages provided to the fossil fuel sector
- Provision of innovative coverages for new and nascent technologies supporting a sustainable world – new markets and early mover advantage
- Re-pricing of existing contracts in light of changed systems, and lack of data to price/reserve for covering new systems
- Exclusions and amendments to coverages to phase out fossil fuel exposure. Incentivisation of climate-friendly policyholders



Aim to be Leaders, not Laggards!

Green investments don't mean lower returns



Source: [A Look Inside Green Bonds: Combining Sustainability With Core Fixed Income \(spglobal.com\)](https://www.spglobal.com)

- Contrary to popular belief, impactful investment **does not mean sacrificing returns**
- FCA is working with other regulators across the globe to ensure globally consistent metrics and standards for sustainable investments

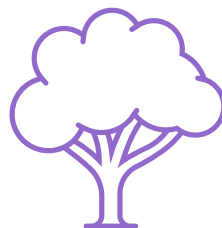
Theme 3 – Action on Forest and land use



COP26 leaders acknowledged the key role of agriculture and agricultural trade in a new and sustainable regime. Steps were taken to bring changes to the supply chain, land degradation measures and Natural catastrophe (NatCat) mitigation techniques

What was discussed?

- Over 140 political leaders, accounting for more than 90% of the world's forests, have committed to work together to **halt and reverse forest loss and land degradation by 2030** in the Glasgow Leaders' Declaration on Forests and Land Use
- £8.75 billion pledged to a new Global Forest Finance Pledge. This will support action in developing countries, including **restoring degraded land, tackling wildfires** and advancing the rights of Indigenous Peoples and local communities
- Forest, Agriculture and Commodity Trade (FACT) Statement was signed to deliver **sustainable agricultural trade** and reduce pressure on forests, including **support for smallholder farmers** and improving the transparency of **supply chains**



What should I be thinking about as an Actuary?

- Impact of increased forests on wind-related perils for Property risk
- Changes to Catastrophe models regarding NatCats, and their impact on capital modelling
- Reduced mortality/morbidity, airborne pandemics
- Better market opportunities for geographies that were previously considered risky
- Penetration of insurance products supporting farmers and agriculture
- Avoiding underwriting non-green agricultural projects
- Changes in Transit insurance arising out of changes to supply chains

COP26 - Week 2

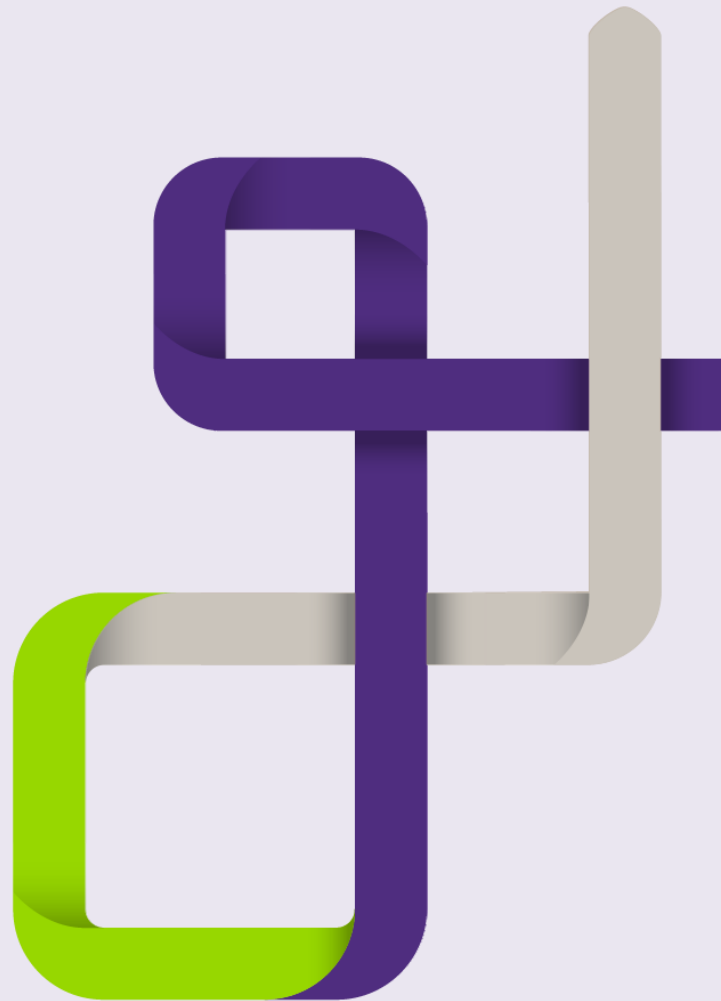
Notable days

8th November – Adaptation, Loss and Damage day

9th November – Science and Innovation Day

10th November – Transport Day

12th November – Closure of Negotiations



Timeline of key events – Week 2

UK pledge to support developing countries

£290m to support developing countries with climate change

Climate Action Tracker published new analysis suggesting a 2.7° C rise

By a group with transparent prediction methods

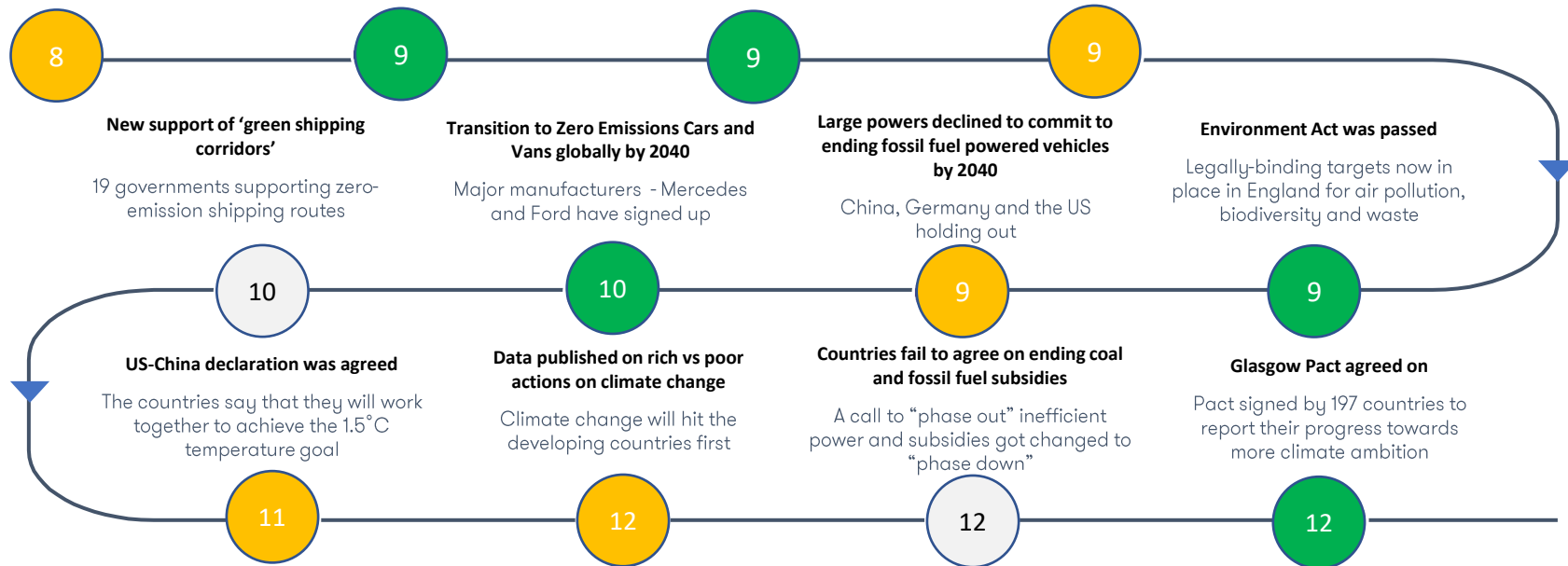
Research showing hotter summers in the UK

Report from the Met Office shows that by 2070 summer days over 30C will become more frequent

Deal to finance clean technology was agreed

22 governments agreed a deal to decarbonise high-polluting tech industries

- Very relevant to insurance industry
- Somewhat relevant to insurance industry
- Fewer implications on insurance industry



Theme 1 – Physical Risks and actions



While Climate Risk and the physical consequences have been under discussion for a number of years, the latest research during COP26 has acted as a further wake-up call for countries to avoid complacency in reacting to worsening projections

What was discussed?

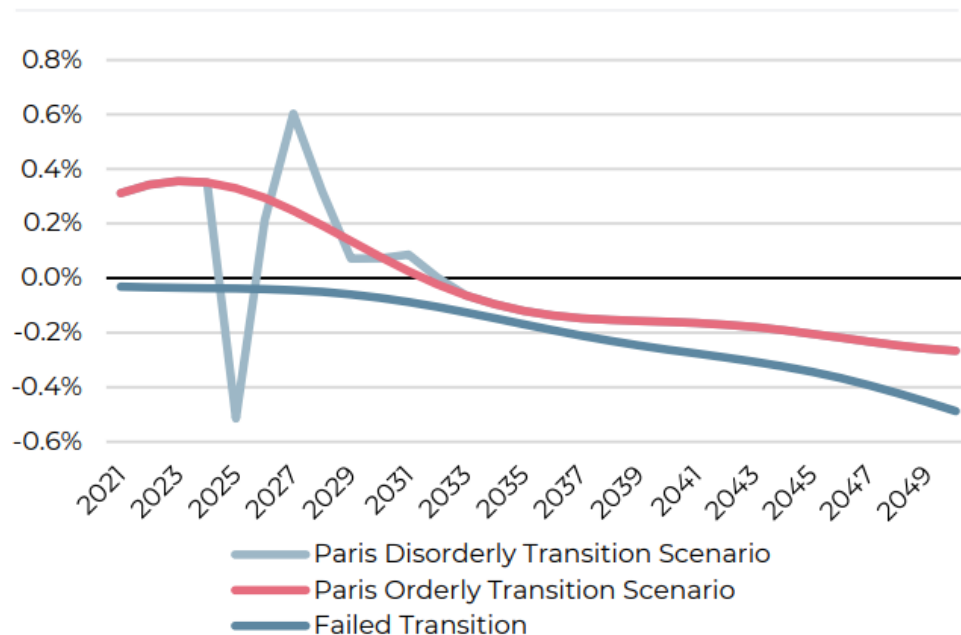
- Climate Action Tracker published new analysis suggesting a 2.7°C rise by the end of the century under current policies, and 2.4°C under the current 2030 targets – a "massive credibility, action and commitment gap"
- Research showing hotter summers in the UK – days exceeding 30°C on consecutive days likely to become more frequent

What should I be thinking about as an Actuary?

- Long-term changes to catastrophe modelling and scenario analysis
- Expected impacts on frequency / severity of catastrophes including increased risk of misalignment from outputs – avoid a 'black box' approach
- Impacts on typical perils and products e.g.: Subsidence, Crop
- Changes to traditional historical approaches e.g.:
 - **Benchmarking** climate strategy against peers in terms of commitments and performance
 - **Pricing & Underwriting**: Reshaping portfolios and considering impacts on underwriting to consider climate risk from counterparties, the volume of green activities, and changing the products offered in line with the risk appetite
 - **Exposure management, reserve adequacy** and uninsurable risks
 - **Reinsurance** to transfer the risk of natural catastrophes
 - Working closely with the public sector to understand natural catastrophe planning and expectations

Theme 1 – Physical Risks and actions (cont.)

Climate scenario impact on baseline GDP growth forecast



Sources: Ortec Finance, AEW Research & Strategy

- ① How might these transition scenarios look in light of discussions at COP26? Should insurers be making adjustments to their models now (either implicitly or explicitly)? If not, when?
- ② How might rates across different lines of business be affected by these changes to the economy? Likely different impacts across different lines of insurance (Environmental Liability / Property / D&O / Crop etc)
- ③ Although significantly impacting the Investment side, likely to be knock-on effects across GI and Life products impacting Pricing, Capital and Reserving

Theme 2 – Fair pricing/protection gap



In this context the “Protection Gap” is traditionally defined as the difference between the economic loss caused by a disaster versus the actual insurance coverage provided. At COP26,

What was discussed?

- Data published on rich vs poor actions on climate change
- The UK pledged £290m to support developing countries deal with the effects of climate change
- More than £300m has been committed by over 10 countries to help less developed countries fight climate change as part of the Least Developed Countries Fund (LCDF)
- Germany additionally pledged €18m premium support to subsidise climate insurance for African Risk Capacity (ARC) Member States

What should I be thinking about as an Actuary?

- What are the **underlying benefits** of insurance? How might insurance in this context differ from, for example, traditional London Market?
- What sorts of products might be more impactful here? How might the potential for **rapid expansion** impact traditional **Reserving, Pricing and Capital considerations**?
- Consider **alternatives** to reducing risk – Pools, Levies, Captives, etc? Geographical, regulatory, political challenges
- A growing area with a **different policyholder base** – even more importance on communicating complex topics, broader financial analysis, unique product design and training/knowledge sharing imperative

Theme 3 – New technologies and risks



In dealing with climate risks and designing systems and solutions, we should consider associated challenges that may arise with such an emerging area - which is constantly facing greater regulatory intervention

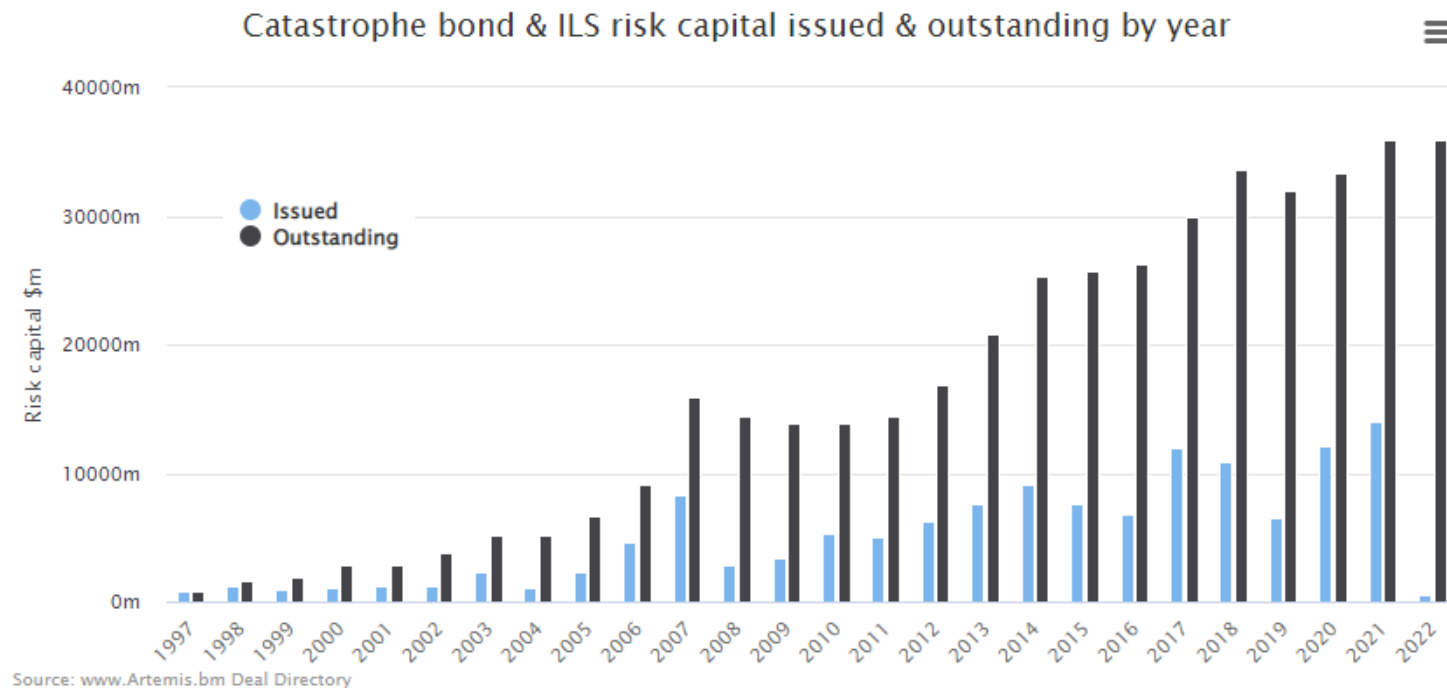
What was discussed?

- Deal to finance clean technology was agreed
- Transition to Zero Emissions Cars and Vans globally by 2040 – major manufacturers have already signed up to the declaration with more expected to join
- Countries fail to agree on ending coal and fossil fuel subsidies

What should I be thinking about as an Actuary?

- How might this impact existing insurance products?
 - Motor insurance – new products (e.g.: batteries) may give rise to **unusual or latent claims** with **different risk profiles**
 - Renewable energy insurance products, traditional catastrophe products versus newer tools such as catastrophe bonds
 - D&O and other Liability products – it is unclear what the impact may be on senior leadership **failing to deliver, or adhere to, new regulations surrounding climate risk** (e.g.: TCFD recommendations)
- How might these changes impact business models in the long run? How should insurers balance the complexities between **social and regulatory pressures** versus **market competitiveness** in both the short, medium and long term?

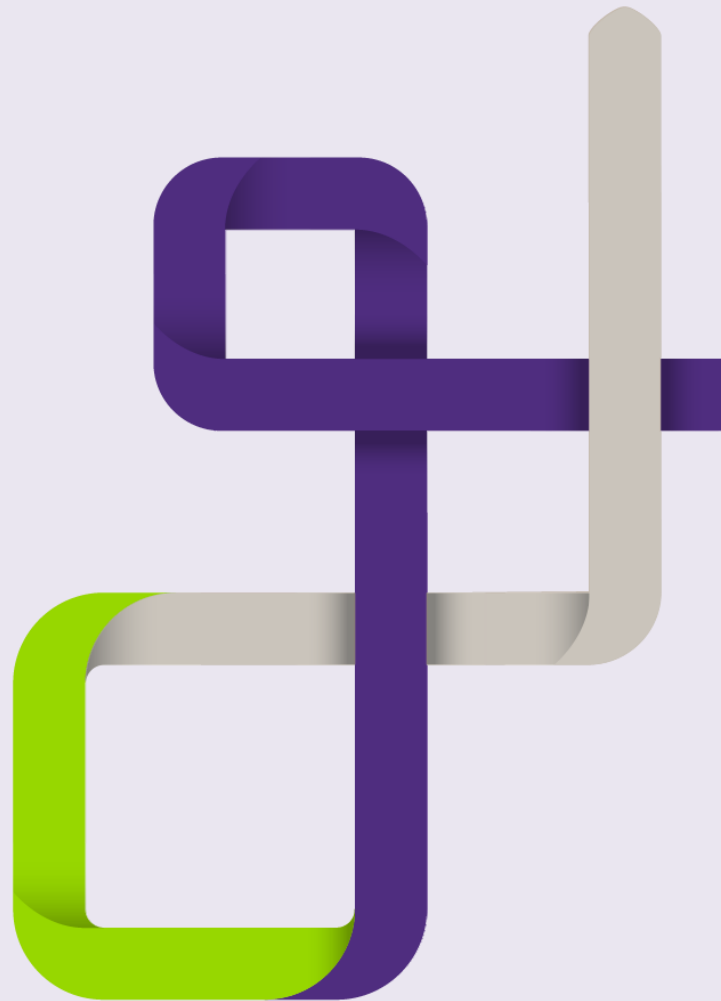
Theme 3 – New technologies and risks



Poll 2



COP26 Agreement



About the COP26 Agreement

- Not legally binding (although some countries might make it compulsory)
- A new global agreement signed by 197 countries - sets the global agenda on climate change for the next decade
 - *Requests* that countries **revisit and strengthen** their climate pledges by end of 2022, calls for a **phasedown of coal** and **sets up processes** towards delivering a global goal on adaptation, higher levels of climate finance and finance for loss and damage
- Builds on Paris Agreement 2015
- Criticised by some leaders and campaigners that it does not go far enough to limit the devastating effects of climate change on our planet

Agreements

1. On cutting emissions

- Cut global CO₂ emissions by 45% by 2030
- Zero overall by 2050
- New improved targets by 2022 in line with Paris Agreement of keeping warming below 2°C and closer to 1.5°C
- *Australia and New Zealand have already suggested they have no plans to revisit their commitments*

2. On fossil fuels – **a first at a COP**

- Accelerate efforts towards phasedown of unabated coal power
- Accelerate the phaseout of inefficient fossil fuel subsidies that artificially lower the price of coal, oil, or natural gas
- *Tone was changed last minute to “phase down” rather than “phase out” due to pressure from India and China*

3. On finance

- Commitment for wealthier nations to help poorer countries become more resilient against weather caused by climate change (e.g. new sea defences, more robust power grids) and switch to clean energy
- *Wealthy countries failed to meet long-standing promise to mobilise \$100 billion a year in climate finance by 2020*

4. On losses

- Wealthier countries to provide compensation to vulnerable countries affected by rising seas, wildfires and storms.
- *No agreement on establishing a dedicated fund for loss and damage*

Poll 3



Key learnings

- Investments
- Underwriting
- Visibility and long-term implications – being mindful of societal impact
- Assumptions across Reserving/Capital/Pricing
- Regulatory implications
- Consider the opportunities we have as an industry to help

Useful links

- <https://www.instech.london/insight/cop26-and-insurance-key-themes>
- <https://www.artemis.bm/dashboard/catastrophe-bonds-ils-issued-and-outstanding-by-year/>
- Further information in the GIRO 2021 talk: “Balancing technical complexity and clear communication to scale up financial protection for poorest”
- <https://www.cfr.org/in-brief/cop26-heres-what-countries-have-pledged>
- <https://unfccc.int/news/us-413-million-pledged-for-most-vulnerable-countries-at-cop26>
- <https://www.thegef.org/what-we-do/topics/least-developed-countries-fund-lDCF>
- [https://www.energylivenews.com/2021/11/09/cop26-more-than-410m-committed-to-help-developing-countries-fight-climate-change/#:~:text=More%20than%20%24410%20million%20\(%C2%A3,Developed%20Countries%20Fund%20\(LDCF\).](https://www.energylivenews.com/2021/11/09/cop26-more-than-410m-committed-to-help-developing-countries-fight-climate-change/#:~:text=More%20than%20%24410%20million%20(%C2%A3,Developed%20Countries%20Fund%20(LDCF).)
- <https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action/>
- Source: https://www.aew.com/writable/documents/AEW_Research_Report_ENG_VF.pdf



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