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Climate Change and the Insurance Industry

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Presented by Natalia Mirin and Conal Shirazi

Overview

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Background to the Task Force on Climate-related Financial Disclosures (TCFD)

- The Task Force was created in 2015 by the G20’s Financial Stability Board (FSB).
- The objective was to develop voluntary, consistent climate-related financial disclosures that would be useful to investors, lenders, and insurance underwriters in appropriately assessing and pricing climate related risks. The first recommendations for disclosures were released in June 2017.
- These commitments have led users of climate-related financial disclosures — investors, lenders, and insurance underwriters — to increasingly seek decision useful information on organizations’ plans and progress to move to a low-carbon economy, referred to as transition plans, including the use of associated climate-related metrics and targets to track such progress.
- UK made TCFD reporting Mandatory from 6 April 2022 for over 1,300 of the largest UK-registered companies. This will include many of the UK’s largest traded companies, banks and insurers, as well as private companies with over 500 employees and £500 million in turnover.
- TCFD highlighted the UK as a Global leader in supporting the initiative. Other countries at the forefront of adoption include Japan, Canada, Switzerland, Brazil, Singapore, Australia, New Zealand and the EU.

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2021 Annex – Implementation Paper

In October 2021, a TCFD Annex implementation paper was released in response to participant feedback that clarified certain areas of the reporting. Key takeaways for this include:

- Detailed disclosure guidance specific to key industries was set out, including Banks, Insurers, Asset Owners, Asset Managers and Non Financial groups. Insurer specific guidance is reflected in later slides.
- Organisations should include climate-related financial disclosures in public annual financial filings.
- Preparers can opt to not make a recommended disclosure, but must provide adequate rationale.
- To promote more informed investing, the Task Force recommends all financial and non-financial organizations with public debt or equity implement its recommendations.
- In addition, the Task Force believes that asset managers and asset owners, including public- and private-sector pension plans, endowments, and foundations, should implement its recommendations.
- A separate paper was also released giving more detail on Climate related Metrics and Targets.

Source: "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures" - https://www.fsb-tcfd.org/publications/

What do TCFD disclosures entail?

TCFD disclosures get broken down into the following main categories:

Governance	Strategy	Risk management	Metrics and Targets
The organization’s governance around climate-related risks and opportunities	The actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning	The processes used by the organization to identify, assess, and manage climate-related risks	The metrics and targets used to assess and manage relevant climate-related risks and opportunities

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Principles for Effective Disclosures

To underpin its recommendations and help guide developments in climate-related financial reporting, the Task Force developed a set of fundamental principles for effective disclosure. These are:

- Disclosures should represent relevant information
- Disclosures should be specific and complete
- Disclosures should be clear, balanced and understandable
- Disclosures should be consistent over time
- Disclosures should be comparable among companies within a sector, industry, or portfolio
- Disclosures should be reliable, verifiable, and objective
- Disclosures should be provided on a timely basis

Source: "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures" - https://www.fsb-tcfd.org/publications/

Governance

The Key areas of disclosure in the Governance section are:

- Describe the board's oversight of climate-related risks and opportunities.
- Describe management's role in assessing and managing climate related risks and opportunities.

There was no Insurer specific guidance in the Implementation paper for this section of the disclosures.

Information taken from TCFD document: "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures"

Source: "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures" - https://www.fsb-tcfd.org/publications/

Strategy

The Key areas of disclosure in the Strategy section are:

- Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.
- Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning :
  - how the potential impacts influence client or broker selection;
  - whether specific climate-related products or competencies are under development, such as insurance of green infrastructure, specialty climate-related risk advisory services, and climate-related client engagement.
- Describe the resilience of the organization's strategy, taking into consideration different climate related scenarios, including a 2°C or lower scenario. Additional disclosures here are requested for insurers, more specifically:
  - A description of the climate-related scenarios used, including the critical input parameters, assumptions and considerations, and analytical choices. In addition to a 2°C scenario, insurance companies with substantial exposure to weather-related perils should consider using a greater than 2°C scenario to account for physical effects of climate change and – time frames used for the climate-related scenarios, including short-, medium-, and long-term milestones.

Source: "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures" - https://www.fsb-tcfd.org/publications/

Risk Management

The Key areas of disclosure in the Risk Management section are:

- Describe the organization's processes for identifying and assessing climate related risks. Additional disclosures here are requested for insurers, more specifically:
  - physical risks from changing frequencies and intensities of weather-related perils;
  - transition risks resulting from a reduction in insurable interest due to a decline in value, changing energy costs, or implementation of carbon regulation;
  - liability risks that could intensify due to a possible increase in litigation.
- Describe the organization's processes for managing climate related risks. Additional disclosures here are requested for insurers, more specifically:
  - Insurance companies should describe key tools or instruments, such as risk models, used to manage climate-related risks in relation to product development and pricing.
  - Insurance companies should also describe the range of climate-related events considered and how the risks generated by the rising propensity and severity of such events are managed.
- Describe how processes for identifying, assessing, and managing climate related risks are integrated into the organization's overall risk management

Source: "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures" - https://www.fsb-tcfd.org/publications/

Metrics and Targets

The Key areas of disclosure in the Metrics and Targets section are:

- Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process. Additional disclosures here are requested for insurers, more specifically:
  - Insurance companies should provide aggregated risk exposure to weather-related catastrophes of their property business (i.e., annual aggregated expected losses from weather-related catastrophes) by relevant jurisdiction.
  - Insurance companies should describe the extent to which their insurance underwriting activities, where relevant, are aligned with a well below 2°C scenario, using whichever approach or metrics best suit their organizational context or capabilities. Insurance companies should also indicate which insurance underwriting activities (e.g., lines of business) are included..
- Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. Additional disclosures here are requested for insurers, more specifically:
  - Insurance companies should disclose weighted average carbon intensity or GHG emissions associated with commercial property and specialty lines of business where data and methodologies allow.
- Describe the targets used by the organization to manage climate related risks and opportunities and performance against targets.

Source: "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures" - https://www.fsb-tcfd.org/publications/

TCFD Challenges

- Based on a comprehensive survey TCFD participants, 90% of users of disclosure information said reporting of financial impact of climate risk as useful information, but only 20% of disclosure preparers report this information.
- Although analysis of public company reporting shows that metrics and targets is one of the highest areas of disclosure, the majority of survey respondents found the Metrics and Targets recommendation “somewhat difficult” or “very difficult” to implement.
- In light of this, the task force has organized multiple consultations with preparers of the reports, with the aim of increased standardization and clarity on what key metrics and targets should be included in the disclosures. This includes the “Guidance on Metrics, Targets, and Transition Plans” released in October 2021.

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CBES Background

- Stress test ran by the Bank of England
  - First round 8 June – 13 October 2021
  - Second round 9 February – 31 March 2022
- Participants included Banks, Life and General Insurers
- Objectives were to:
  - Size financial exposures to climate-related risks
  - Understand the challenges to business models from these risks
  - Assist participants in enhancing their management of these risks
- Explored three 30-year climate scenarios testing transition and physical risks
- Also included a qualitative questionnaire

CBES Scenarios

Early Action	Late Action	No Additional Action
• Transition begins in 2021 • Carbon taxes and other policies are introduced gradually • Net-zero emissions target achieved by 2050 • Mean global warming kept to 1.8ºC by the end of the scenario • Physical risks are limited • Transition risks are moderate due to gradual nature of the transition	• Transition delayed until 2031 • Introduction of policies is much more sudden and chaotic in order to still meet net-zero emissions and 1.8ºC targets • Physical risks remain limited • Transition risks are significant including a recession shortly after the start of the transition	• Only policies that were implemented before 2021 are considered • Net-zero emissions target not achieved • Mean global warming reaches 3.3ºC by the end of the scenario* • Transition risks are limited • Physical risks are considerable and have permanent effect on GDP

*calibrated to the level of physical risks that could be prevalent between 2050 and 2080 where the most material shocks are expected to occur.

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CBES Results – Stress Tests

- Projections from participants suggest that overall costs under the early action scenario are lower than the late or no additional action scenarios
- Annual drag on profits could be as much as 10-15% on average, and this could make firms more susceptible to other shocks
- No additional action scenario could:
  - impact Life Insurers' forward-looking asset prices by just over 15% of their total market value
  - Increase average annualised losses by around 50-70%, although BoE analysis suggests it could be as much as four times higher than submissions suggest
  - Cause 7% of UK households to be unable to obtain or afford insurance
- Still uncertain in in results; for corporate customers shared by different participants the most conservative estimated loss rates were around 10 times higher on average than the least conservative
- There are notable data gaps, eg location of corporate assets, and value chain emissions

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CBES Results – Other key take-aways

- Insurers planned to reduce exposures to similar sectors as cited by banks but to a more modest degree; insurers put more emphasis on engaging counterparties to support transition, rather than divestment.
- There is a risk that the transition plans in aggregate could have potentially large negative macroeconomic consequences, for example if banks and insurers divest from oil and gas energy firms before developments in renewable energy and other green technologies materialise
- Only a small percentage of total costs is expected to be passed to shareholders; most costs are expected be passed on to customers through higher premiums or lower availability, and some costs will be absorbed by the matching adjustment.
- Participants relied heavily on third-party modelling for the CBES and some participants struggled to scrutinise the third-party data and projections.
- The BoE highlighted that while the financial system has a crucial role to play in helping finance the transition, it is the real economy where the reductions in greenhouse gas emissions ultimately need to take place

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CBES Results – Good practices

Investment portfolios

- Using bespoke modelling approaches for sectors most exposed to climate risk
- For large holdings in the same counterparty, explicitly link bond and equity values or perform a consistency check
- Adjust pricing models to account for expected future changes in climate risks (if expected this will have an effect in the short term, not just when risks materialise)

Insurance liabilities

- Modelling a wide range of physical perils, not just inland flooding and tropical cyclones
- Identifying limitations of third-party models and adjusting them accordingly, eg allow for UK west coast storm surge losses
- Comparing results with alternative models and engaging with both internal and external specialists
- Undertaking sensitivity analysis to consider a range of possible outcomes
- Reviewing academic research to inform modelling and other activities

CBES Results – Next steps

- Firms will be given feedback on the quality of their submissions and areas for improvement.
- Findings on climate risk management will feed into assessment of firms against advisory expectations.
- Key thematic findings will be shared with the banking and insurance industries
- The CBES will inform ongoing work around appropriate policy tools to capitalise climate risks.
- The BoE is working closely with the Government to improve its understanding of the future path of climate policy and the ability of the financial system to support a sustainable transition.

Synergies between different areas of actuarial Climate risk work

TCFD recommendations are due to be incorporated or support the climate reporting standards for a number of similar initiatives. These include:

- G7 statement: “We support moving towards the mandatory climate-related financial disclosures that provide consistent and decision-useful information for market participants and that are based on the Task Force on Climate-related Financial Disclosures (TCFD) framework, in line with domestic regulatory frameworks.”
- “The FSB strongly encourages national of regional authorities that are developing requirements or guidance for climate-related disclosures to consider using the TCFD recommendations as the basis.”
- “The (European) Commission supports initiatives by the G20, the G7, the Financial Stability Board and others to generate international commitment to develop a baseline of global sustainability reporting standards that would build on the work of the Task Force on Climate-related Financial Disclosures.”
- “IOSCO (International Organization of Securities Commissions) welcomes….. a prototype for an approach to climate-related disclosures that builds on the recommendations of the Task Force of Climate-related Financial Disclosures.”

International Sustainability Standards Board (ISSB)

- The trustees of the IFRS announced the formation of the ISSB at COP26. This has the objective "deliver a comprehensive global baseline of sustainability-related disclosure standards that provide investors and other capital market participants with information about companies' sustainability-related risks and opportunities to help them make informed decisions." and this would "build on the work of existing investor-focused reporting initiatives" including TCFD.

- A draft paper for ISSB named "General Requirements for Disclosure of Sustainability-related Financial Information" was recently released with 4 key disclosures of governance, strategy, risk management and metrics and targets. These may look familiar…..

- ISSB's Technical Readiness Working Group (TRWG) includes International Accounting Standards Board (IASB), TCFD, the Value Reporting Forum (VRF) and World Economics Forum (WEF) – so overlaps are not a coincidence!

- IFRS produced a document comparing the main differences between TCFD and ISSB, more specifically:

  - uses different wording to capture the same information as the TCFD recommendations (some instances);

  - requires additional, more granular information that is in line with the TCFD recommendations (few instances); and

  - differs substantively from the TCFD guidance—but not the TCFD overall recommendations—mainly by proposing some additional specific disclosures (very few instances).

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Climate Based Scenario and Stress Testing

- In order to report the organizations resilience under TCFD, they are required to report the potential impact of climate related issues on financial performance and financial position, and what climate related scenarios and time frames have been considered here.
- In practice very similar to CBES process, providing readily available climate projections under stress, financial impacts of those scenarios, and many insurers already have an established CBES calculation process
- At YE21 reporting the PRA specifically asked for CBES results to not be explicitly stated on TCFD disclosures, as CBES results were not yet released.
- Main issue that CBES scenarios are now relatively dated, with an initial release in April 2019.
- The organization responsible for creating the CBES scenarios Network for Greening the Financial System (NGFS) released more up to date climate stress projections in July 2021, which are likely more appropriate.
- Potential for regulators or individual companies to create bespoke climate stress scenarios instead. This has been observed in some European Climate Assessment exercises already for example the DNB (Netherlands Central Bank) or Bundesbank (German Central Bank) climate exercises.

COP26 and the Insurance Industry's response

Glasgow recently hosted COP26, with thousands of people from around the globe (including more than 200 world leaders) gathering to discuss and agree measures for tackling climate change.

COP26 lasted two weeks and covered a variety of areas including: finance; energy; nature; adaptation, loss and damage; science and innovation; and transport.

The final agreement between 197 countries (named the "Glasgow Pact") was reached on the 13 November 2021. The next COP will be held in Egypt in November 2022.

Throughout the two weeks there were many notable discussion and speeches by world leading professionals. Topics of particular note to the insurance industry included:

Finance

Financing our future, including new investment promises and the announcement of the Net Zero Aligned Financial Centre

Health

The COP26 Health Programme was established in response to the Health Argument for Climate Action published by the World Health Organisation

Technology

New technologies and risks, including a deal to finance clean technology

Deforestation

Action on forest and land use, and how this can lead to better air quality and reduced natural catastrophe risks

Pricing

Fair pricing - in particular, data published on rich versus poor actions on climate change suggested that the effects will hit developing countries first

Climate Tracking

Climate Action Tracker published analysis suggesting a 2.7˚C rise in global temperatures under current policies by the end of the century and a 2.4˚C under current 2030 targets

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The Glasgow Pact

- The Glasgow Pact sets the global agenda on climate change for the next decade. Signatories committed to cut global CO_2 emissions by 45% by 2030 and to zero by 2050. They also agreed to accelerate efforts towards phasing-down unabated coal power and to phase-out inefficient fossil fuel subsidies. Wealthier nations committed to help poorer nations become more resilient to extreme weather events. This includes providing compensation to vulnerable countries affected by rising sea levels, wildfires and storms.
- Countries need to come back next year with stronger targets in line with the Paris Agreement. However, Australia and New Zealand have already suggested they have no plans to revisit their commitments.
- Unfortunately, COP26 was not immune to political manoeuvring between countries. This was witnessed by all with the last-minute changes and wrangling over the terminology regarding commitments on coal use. The wording in the draft agreement was watered down from “phasing out” to “phasing down”; this change in phrase leaves nations with the ability to transition much more slowly away from coal, thus making the targets set out in the Paris Agreement more difficult to achieve. While this change reduces the transition risk exposure for companies, this will be at the cost of missing targets and increasing the physical and liability risk in the future.

Outcomes of COP26

Over 100 countries vow to end and reverse deforestation by 2030

Launch of Glasgow Financial Alliance for Net-Zero (GFANZ)

India committed to be net-zero by 2070 and 50% renewable energy by 2030

40 countries pledge to phase out coal in the 2030s and 2040s

105 countries pledged to cut methane by 30% by 2030

International Sustainability Standards Board (ISSB) to be created

GFANZ

GFANZ is a global coalition of 450 financial firms, across 45 countries, focused on accelerating and mainstreaming the decarbonisation of the world economy. Signatories commit to use “science-based guidelines” to reach net-zero by 2050 and to provide 2030 interim goals. This coalition could deliver $100 trillion of finance over the next 30 years.

US-China Joint Pact

The countries (which are currently two of the biggest polluters) unexpectedly declared an agreement to collaborate on reducing emissions. The agreement was welcomed by many, given these countries account for around 40% of global greenhouse gas emissions. However, many criticised the pact for a lack of specific, concrete goals and plans in reducing emissions.

ISSB established

International investors are increasingly demanding reliable and transparent climate and ESG disclosures to help them to meet their own ESG goals. As a result, the ISSB will be tasked with creating a global baseline for disclosure standards on climate and other ESG matters.

UK Specific Pledges

Climate-related disclosures

For companies in the UK, a new set of requirements will come into force from this year, making it mandatory for the largest companies to disclose their climate-related risks and opportunities in line with TCFD disclosures. This move was announced in the lead-up to COP26 and makes the UK the first of the G20 countries to make this a requirement.

Net-zero Roadmaps

Rishi Sunak announced that the UK will be the first country to require all financial institutions and listed companies to set out plans on how they will transition to net-zero from 2023.

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Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

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