Navigating climate risk for banks and insurers

12 September 2025

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This presentation reflects the personal views of the presenters and is made in a personal capacity.

Today's speakers

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Climate and nature risk: A banking practitioner's perspective

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ICAEW Webinar
12 September 2025

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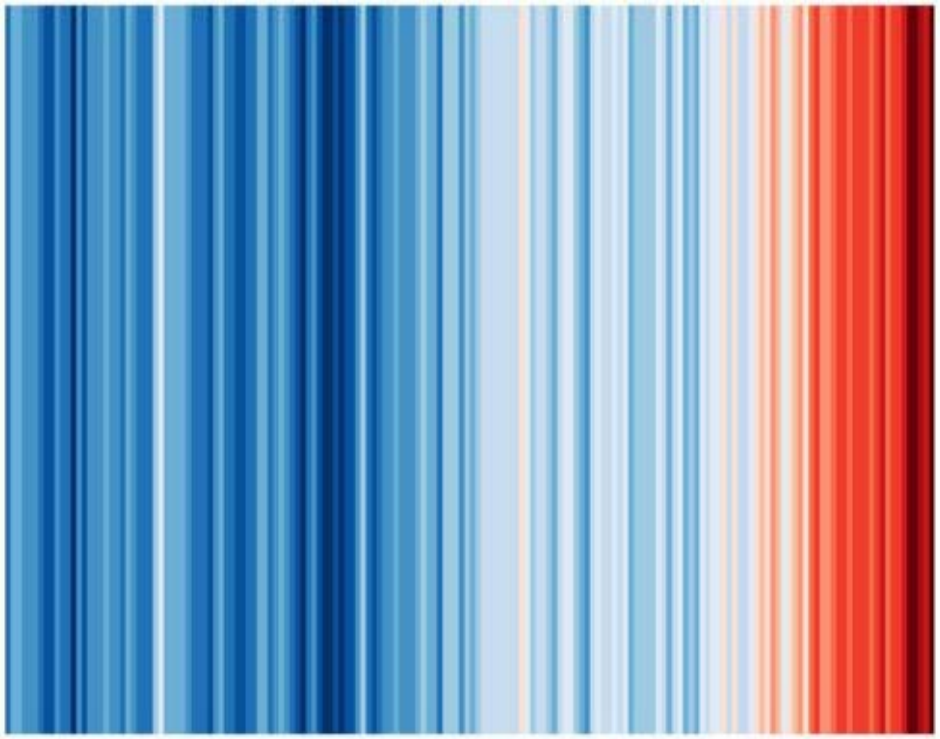
Agenda

1. Gain insights into the latest climate and nature risk developments
2. Understand how these risks affect the real economy and the financial sector
3. Learn how leading institutions are responding to climate risks
4. Explore latest regulatory expectations

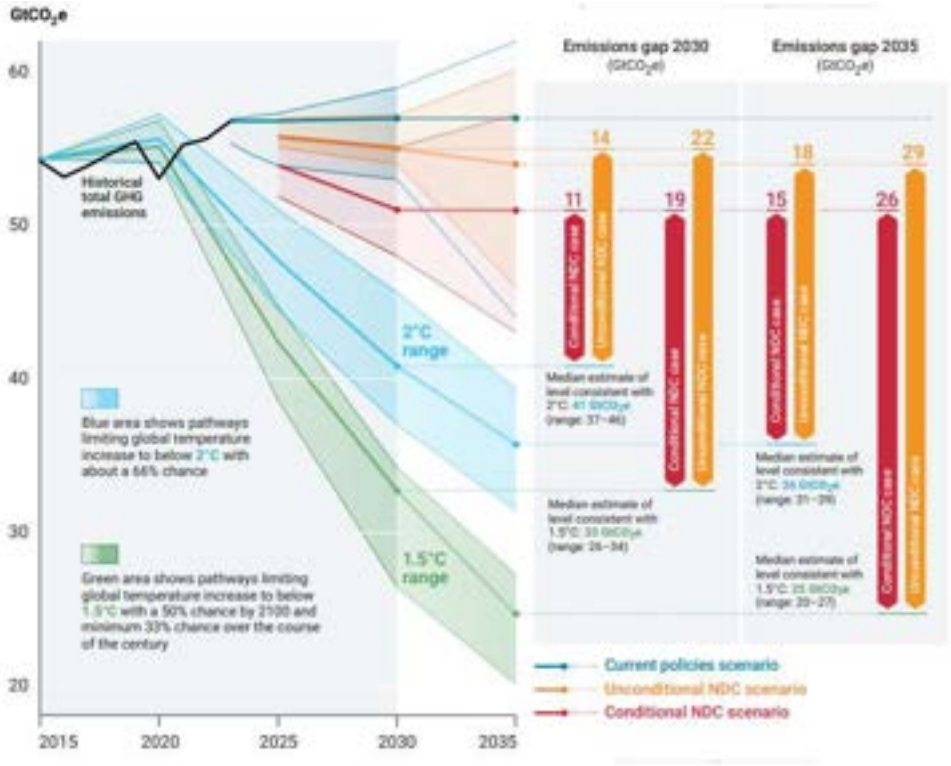
Increase in global average temperatures 1850-2024



Source: https://www.reading.ac.uk/planet/climate-resources/climate-stripes https://climate.copernicus.eu/, and https://climate.ec.europa.eu/climate-change/consequences-climate-change_en accessed on 25 February 2025

- The climate crisis has increased the average global temperature
- The ‘climate stripes’ show how global average temperatures have risen over nearly two centuries.
  - The ‘climate stripes’ were first invented in 2018 by Professor Ed Hawkins, National Centre for Atmospheric Science, University of Reading
  - Each stripe represents the average temperature for a single year, relative to the average temperature over the period from 1961 to 2010
- In 2024 the average temperature exceeded 1.5 C above the pre-industrial level for the first time. All the 18 hottest years have occurred since 2000.
  - Long-term warming measured over decades remains below 1.5°C

We are moving further away from meeting the required reduction in carbon emissions

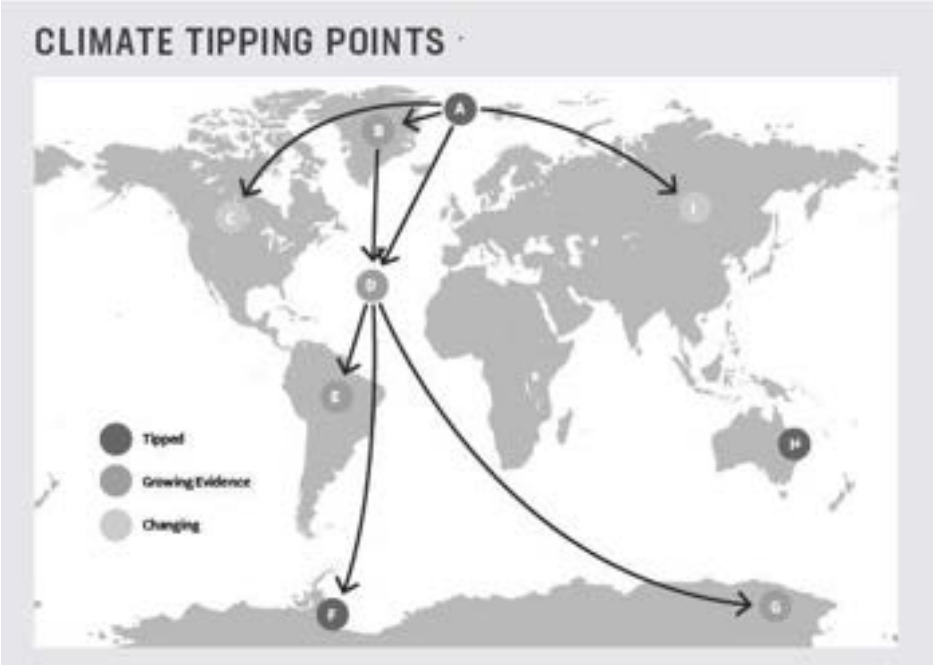


Source: UNEP (2024), Emissions Gap Report, November 2024, p. XVI

- A continuation of current policies and nationally determined contributions (*) scenarios would result in widened and likely unabridgeable gaps with 2C and 1.5C pathways referred to in the Paris Agreement
- Under the three main policy scenarios, central warming projections indicate that the chance of limiting global warming to 1.5°C would be virtually zero
- Immediate mitigation action are required to reduce the gap to these pathway

- (*) An NDC, or Nationally Determined Contribution, is a climate action plan to cut emissions and adapt to climate impacts. Each party to the Paris agreement is required to establish an NDC and update it every five years

Climate risk and tipping points

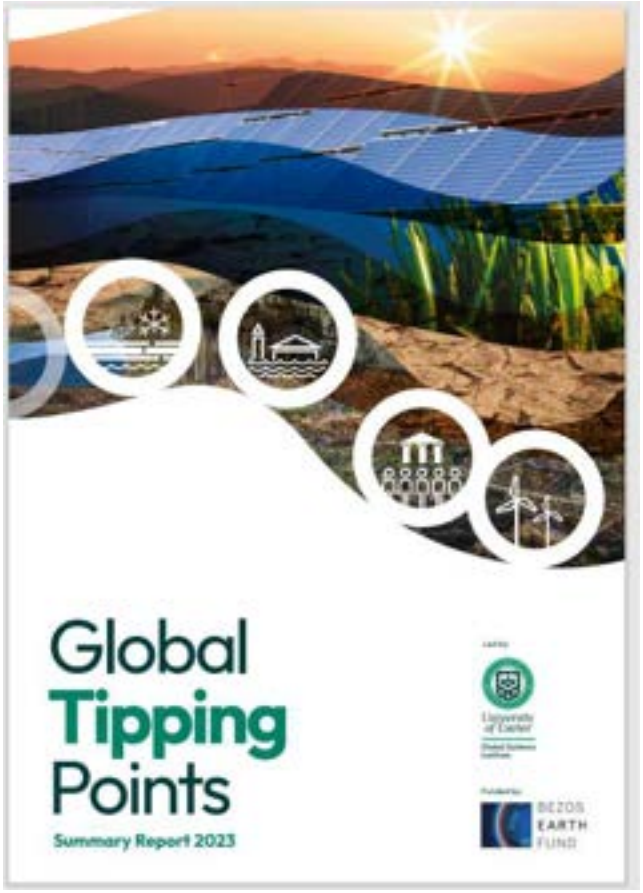


- At just **1.2 degrees C** of warming, climate disruption is already dangerous, with tipping points already passed for large-scale systems including coral reefs, Arctic sea-ice and West Antarctic Ice Sheet (WAIS glaciers).
- With warming at **1.5 degrees C**, there is a risk of blue water Arctic summers as sea ice extent collapses and regional warming is amplified to be 3x the rate of the global average.
- In a **3 degrees C** warmer world, it is likely that the structures of societies will be severely tested and some will crash. The poorest nations will suffer first and most deeply from climate change, but no region will escape.
- Many high-profile climate risk assessments do not account for tipping points, mainly because it is difficult and no empirical data exists on their impact on human society

- A – Arctic Sea Ice, B – Greenland Ice Sheet, C – Boreal Forest, D – Atlantic circulation, E – Amazon rainforest, F – West Antarctic Ice Sheet, G – Wilkes Basin, East Antarctica, H – Coral systems, I - Permafrost

Source: Spratt D. and Dunlop I. (2020). 'Degrees of Risk: Can the Banking System Survive Climate Warming of 3 Degrees?', Break Through – National Centre for Climate Restoration, p. 15, 16, 18, and
Trust S. et al (2025), 'Planetary Solvency – finding our balance with nature', January 2025, page 24

Negative and positive tipping points



- ‘Harmful tipping points in the natural world pose some of the gravest threats faced by humanity. Their triggering will severely damage our planet’s life-support systems and threaten the stability of our societies’.
- The full damage caused by negative tipping points will be far greater than their initial impact.
- Currently, there is no adequate global governance at the scale of the threats posed by negative tipping points. Crossing one harmful tipping point could trigger others, causing a domino effect.
- Preventing this – and doing so equitably – should become the core goal of a new global governance framework. Prevention is only possible if societies and economic systems are transformed to rapidly reduce emissions and restore nature.
- Crucial to achieving this transformational change are positive tipping point opportunities, where desirable changes in society become self-propelling. Concerted actions can create the enabling conditions for triggering rapid and large-scale transformation.

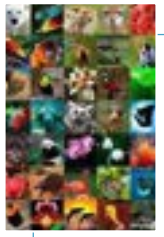
Based on Lenton T. et al (2023), Global Tipping Points Summary Report 2023, University of Exeter, p.3

The interconnection between climate and nature risks

Climate change and environmental degradation are inextricably linked and require immediate and significant action to avert potentially irreversible damage.

Natural Capital Crisis

- Chemical, food, mineral, water or other natural resource crises at a global scale as a result of human overexploitation and/or mismanagement of critical natural resources.



Biodiversity Loss

- Irreversible consequences for the environment, humankind, and economic activity, and a permanent destruction of natural capital, as a result of species extinction and/ or reduction.

Extreme Weather

- Loss of human life, damage to ecosystems, destruction of property and/or financial loss at a global scale as a result of extreme weather events: cold fronts, fires, floods, heat waves, windstorms etc.

Water Scarcity

- By 2025, two-thirds of the world's population may be facing water shortages. Resulting in damaged ecosystems, and inadequate sanitation which can lead to deadly diseases. The water crisis concerns the availability and increasingly the quality of water, this is being exacerbated by climate change (e.g. drought & acidification).

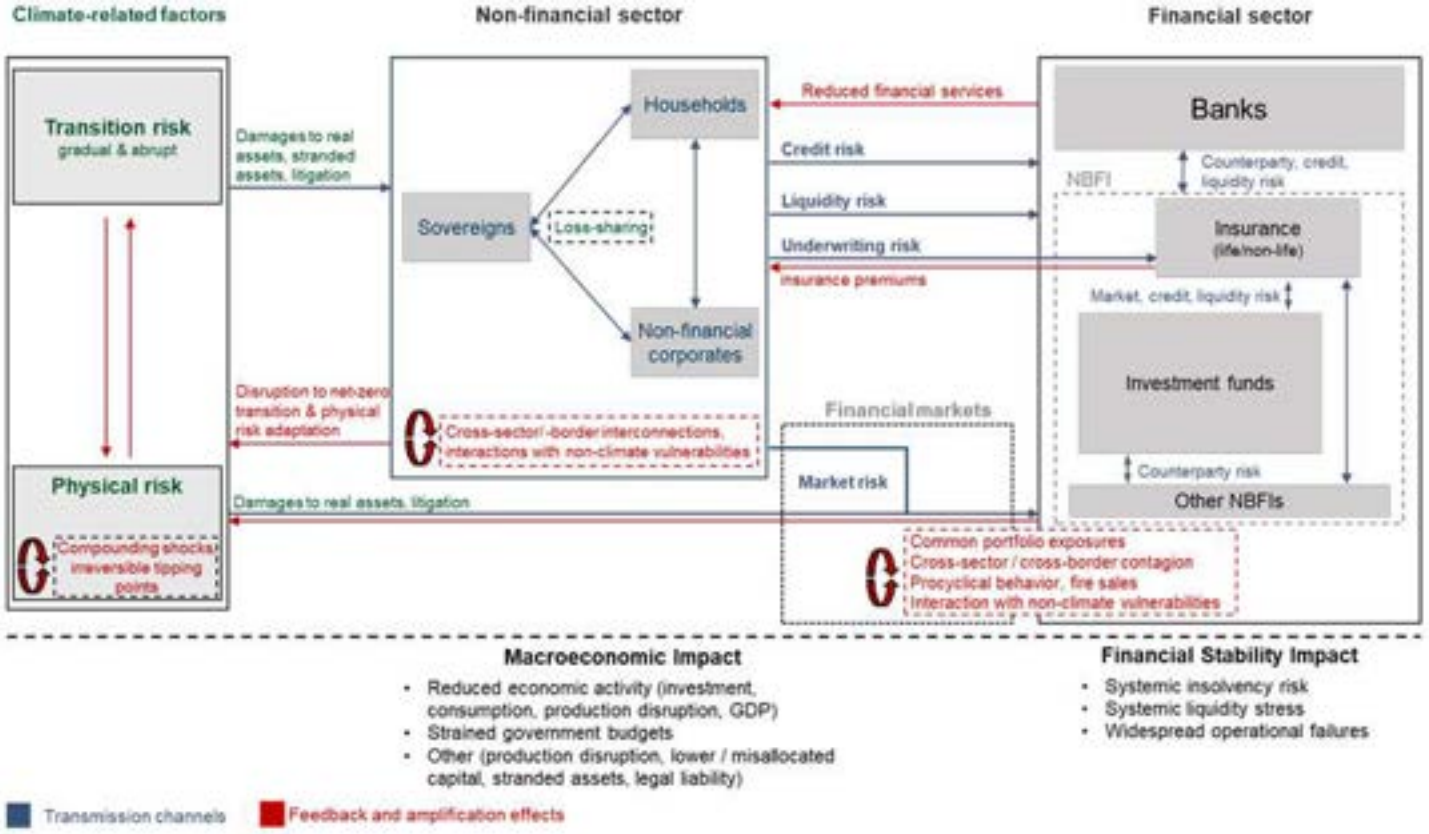
Ocean Health Degradation

- Failure to prevent ocean warming and to protect marine species and ecosystems, threatening food security, increasing the prevalence of diseases and causing more extreme weather events and the loss of coastal protection.
- Ocean acidification – impacting many species.

Source : NatWest Group (2022). 'Nature & Biodiversity Measurement Tools/Methodologies'. Slide included in Mongiardino A. (2023). 'Risk management in banking: A practitioner's perspective'

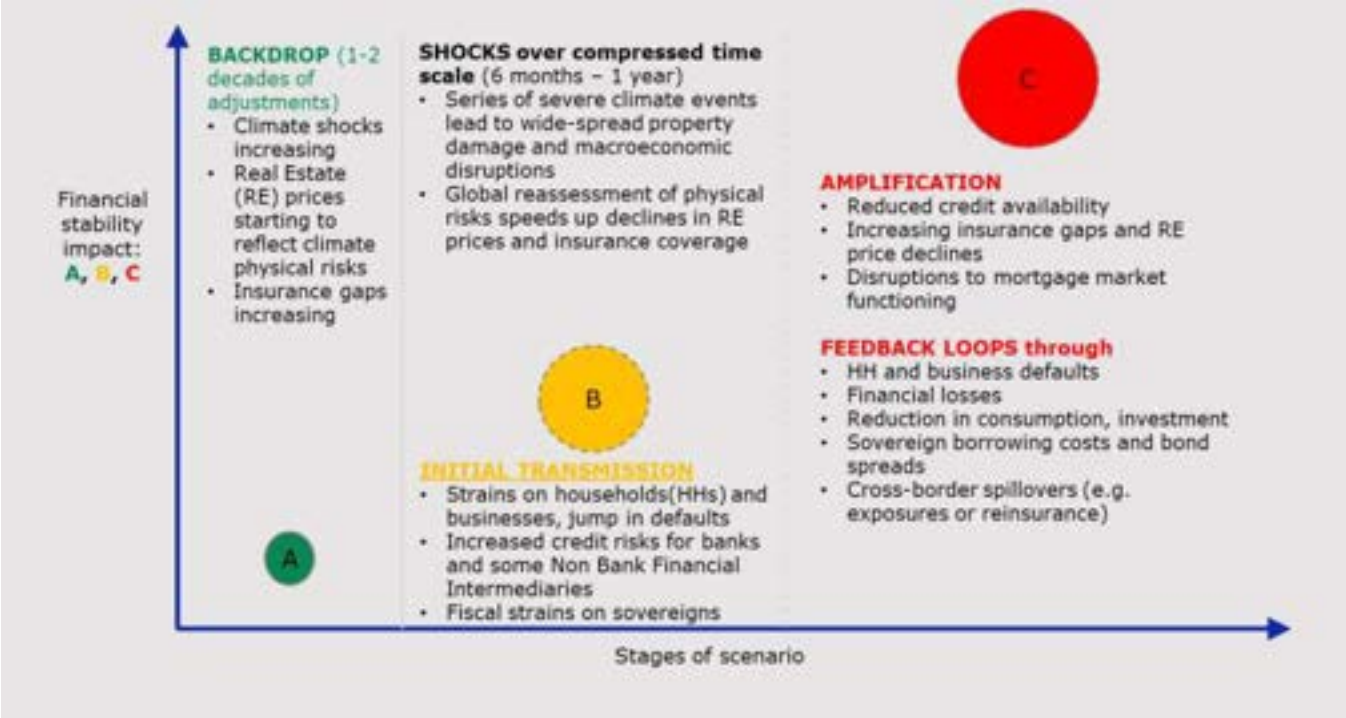
Climate-related vulnerabilities and the financial sector

The Financial Stability Board has proposed a framework for the assessment of climate-related vulnerabilities



Financial Stability Board (2025). 'Assessment of Climate-related Vulnerabilities', January 2025, p. 7

Example – Impact of climate physical risks on the real estate market



Financial Stability Board (2025). 'Assessment of Climate-related Vulnerabilities', January 2025, p. 12

Why climate and nature risk matter for the financial sector

- We are fast approaching temperature levels – 1.5 C, 2C, 3C, where insurers will no longer be able to offer coverage for many assets. The premia required exceed what people or companies can pay.
  - This is already happening. Entire regions are becoming uninsurable. E.g. insurance companies exiting California's home insurance market due to wildfire risk.
- If insurance is no longer available, other financial services become unavailable too. A house that cannot be insured cannot be mortgaged. No bank will issue loans for uninsurable properties. Credit market will freeze. This is a climate-induced credit crunch**.**
- This applies not only to housing, but to infrastructure, transportation, agriculture and industry. The economic value of entire regions will begin to vanish from financial ledgers. Markets will reprice, rapidly and brutally. That is what a climate-driven market failure looks like.
- We already have the technologies to switch from fossil combustion to zero-emission energy. The thing missing is speed and scale.

Based on G. Thallinger, Member of the Board of Management, Allianz, 'Climate, risk, insurance: the future of capitalism', LinkedIn post, 25 March 2025

An example of climate risk impact on the financial sector - The case of Flood Re

- Flood Re is a UK reinsurance scheme, backed by the government, which allows insurance companies to offer more affordable flood cover to those living in areas at high risk of floods
- It was set up in 2016 and it is expected to wind down in 2039. The scheme, was conceived as a stop-gap while the government invested in flood defences
- In July 2025 the CEO of Flood Re said that the UK's flood resilience had deteriorated since Flood Re was set up – as a consequence, the scheme was NOT on track to wind down by its deadline of 2039 without significant price increases
- The scheme will have to raise premia by as much as 20% for the highest council tax bands

Harris L. (2025): 'Investors hitting limit for insuring against UK floods, warns Flood Re chief', Financial Times, 21 July 2025

Summary and key messages

- Addressing successfully climate and nature risk is imperative for ‘saving the conditions under which markets, finance and civilisation itself can continue to operate’ (G. Thallinger)
- The ‘window’ to address them effectively is closing and the world is risking ‘planetary insolvency’
  - We already have the technologies to switch to zero emission energy, but we are missing speed and scale
- In recent years banks have been incorporating the impact of climate risk in their risk management and decision-making process.
  - Incorporating nature risk is harder, but work is under way
- Banks and other financial institutions have a key role to play in financing the shift to a sustainable economy

Climate Risk

John Mongelard, Grant Thornton

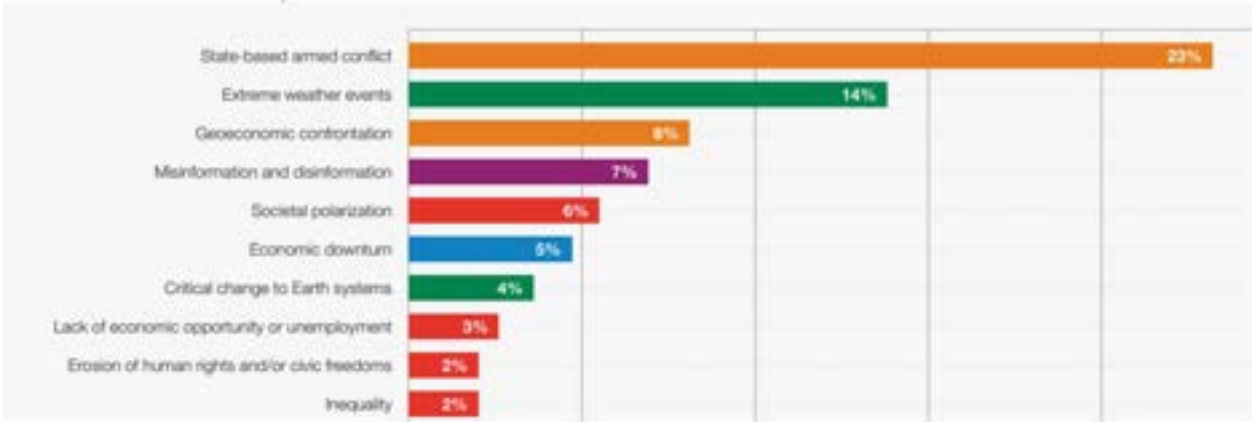
12 September 2025

Agenda

Is climate change a global risk?

FIGURE B **Current Global Risk Landscape**

"Please select one risk that you believe is most likely to present a material crisis on a global scale in 2025."



Source
World Economic Forum Global Risks Perception Survey 2024-2025.

Regulatory Requirements - PRA SS 3/19

Managing Financial Risks from Climate Change

1. Governance

- ❑ **Boards must understand and oversee climate-related financial risks.**
- ❑ **Assign clear accountability for managing these risks at senior management level.**
- ❑ **Ensure climate risk is integrated into business strategy and risk appetite.**

2. Risk Management

- ❑ **Embed climate-related risks into existing risk management frameworks.**
- ❑ **Identify, measure, monitor, and manage these risks as part of overall risk processes.**
- ❑ **Consider both physical risks (e.g., extreme weather) and transition risks (e.g., policy changes).**

3. Scenario Analysis & Stress Testing

- ❑ **Use scenario analysis to explore the impact of climate risks on business models.**
- ❑ **Consider multiple time horizons and non-linear impacts.**
- ❑ **Integrate findings into strategic planning and capital adequacy assessments.**

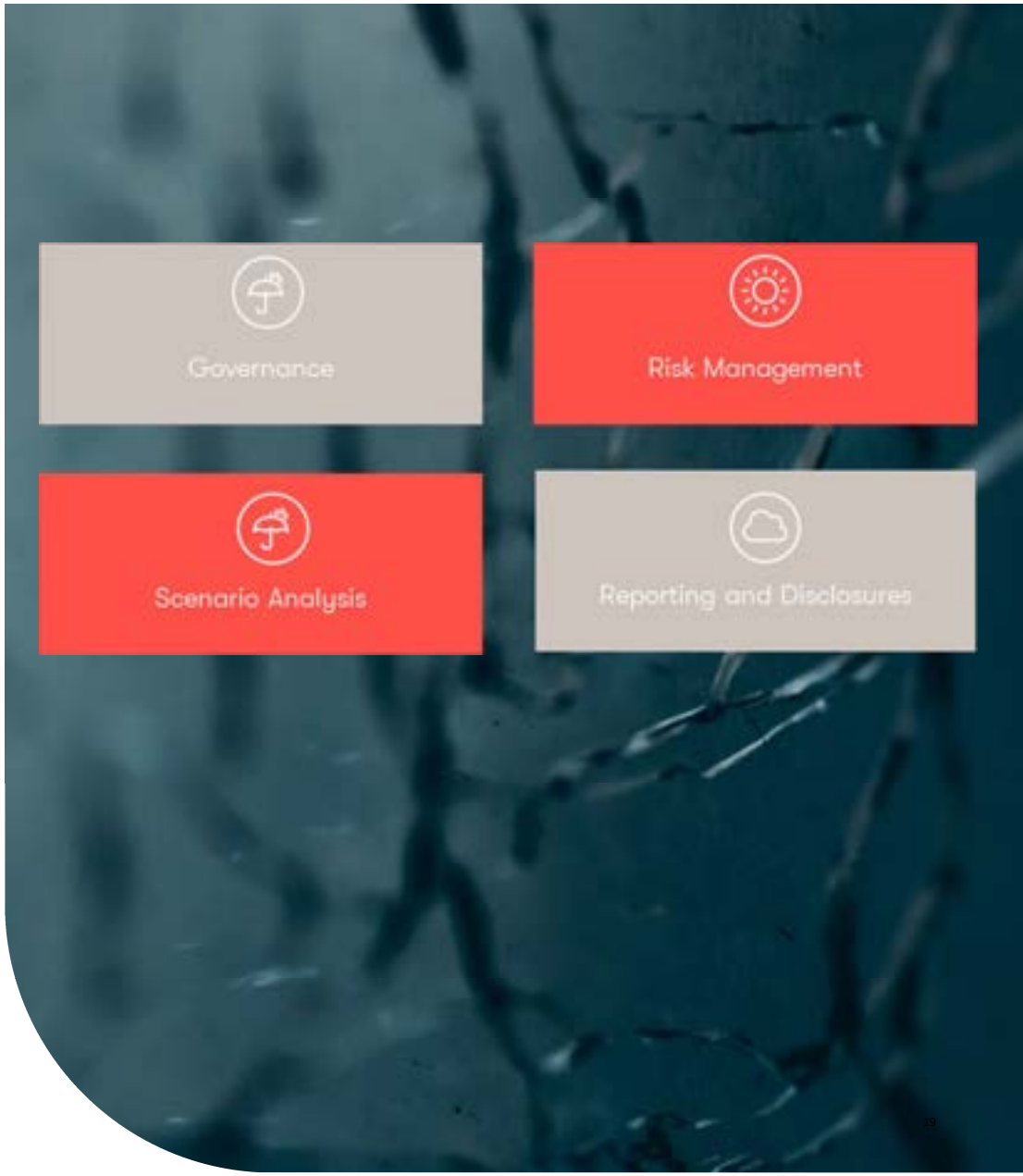
4. Disclosure

- ❑ **Disclose material climate-related financial risks in line with:**
- ❑ **Pillar 3 requirements (CRR)**
- ❑ **Strategic Report (UK Companies Act)**
- ❑ **Explain how climate risks are integrated into governance and risk management.**

Industry approaches

- **Trump 2.0**
- **Narrow and shallow**
- **Restricted sectors**
- **External data & models**


Climate action to have 'limited impact' on financial system, EU finds



Evolving Climate Regulations

Old & New

SS 3/19

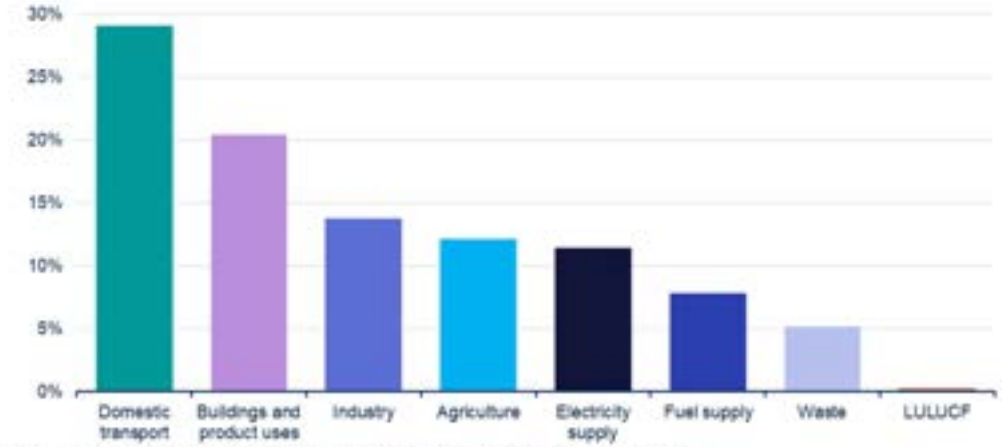
1. Governance
2. Risk Management
3. Scenario Analysis
4. Disclosures

CP 10/25

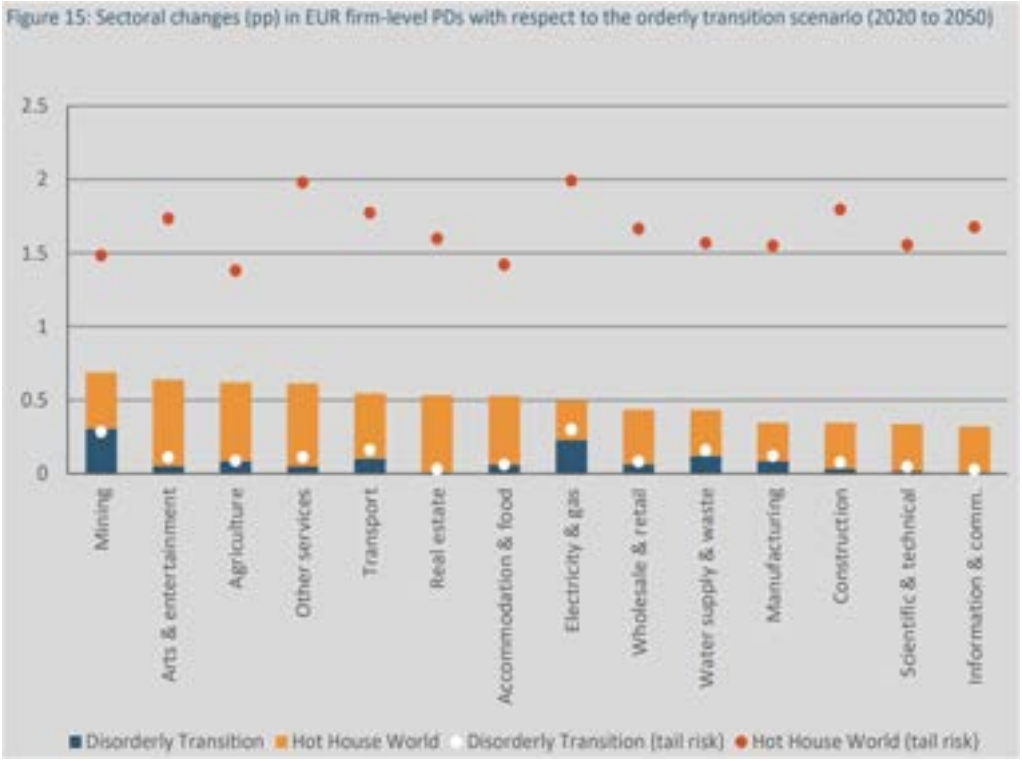
1. Governance
2. Risk management
3. Climate Scenario analysis
4. Data
5. Disclosures
6. Banking specific issues
7. Insurance specific issues

What can firms do?

Figure 5: Territorial UK greenhouse gas emissions by TES sector, 2023 (%)

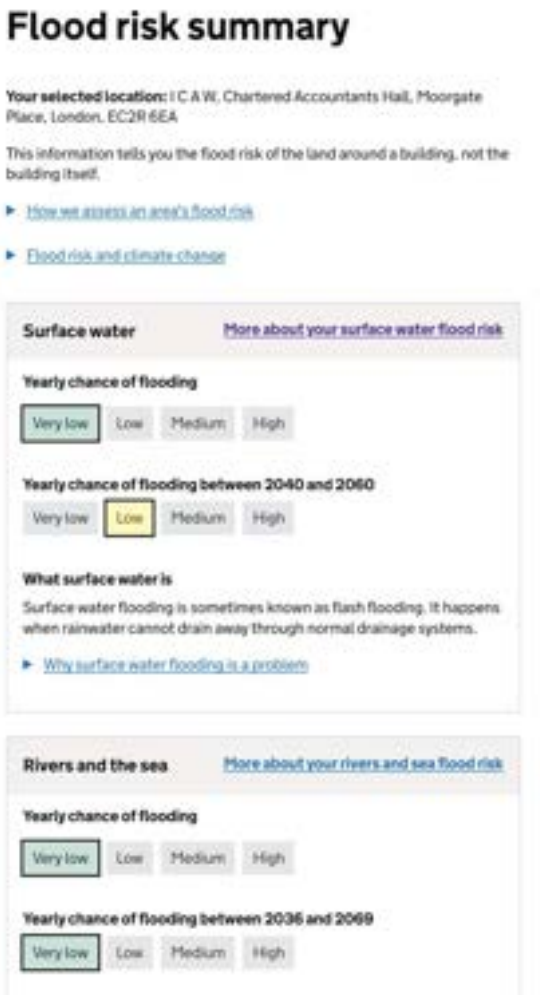


Source: Table 1.2, Final UK greenhouse gas emissions statistics 1990-2023 Excel data tables
Note: LULUCF is land use, land use change and forestry.



https://www.eba.europa.eu/sites/default/files/document_library/Publications/Reports/2021/1001589/Mapping%20Climate%20Risk%20-%20Main%20findings%20from%20the%20EU-wide%20pilot%20exercise%20on%20climate%20risk.pdf

What can firms do?



Flood risk summary

Your selected location: I C A W, Chartered Accountants Hall, Moorgate Place, London, EC2R 6EA

This information tells you the flood risk of the land around a building, not the building itself.

▸ How we assess an area's flood risk

▸ Flood risk and climate change

Surface water — More about your surface water flood risk

Yearly chance of flooding

Very low | Low | Medium | High

Yearly chance of flooding between 2040 and 2060

Very low | Low | Medium | High

What surface water is

Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.

▸ Why surface water flooding is a problem

Rivers and the sea — More about your rivers and sea flood risk

Yearly chance of flooding

Very low | Low | Medium | High

Yearly chance of flooding between 2036 and 2069

Very low | Low | Medium | High

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