

# Assessment of climate-related vulnerabilities The FSB Analytical framework and toolkit

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Simonetta Iannotti, Financial Stability Board Secretariat

CSBF 2025 – 3<sup>rd</sup> Conference on Sustainable Finance Banking and Finance

1 July 2025



# FSB Roadmap on climate-related financial risks

- The FSB [Roadmap](#), was developed in 2021 and covers four interrelated areas, with a focus on financial stability risks from climate change.
- The G20 welcomed the Roadmap and we have been reporting on progress since then
- The Roadmap is about coordinating international work to address climate-related financial risks

## Firm-level disclosures

*FSB report on climate disclosures (2021-24)*

## Vulnerabilities analysis

*Implications of climate change for financial stability  
(2020)*

*Assessment of climate-related vulnerabilities (2025)*

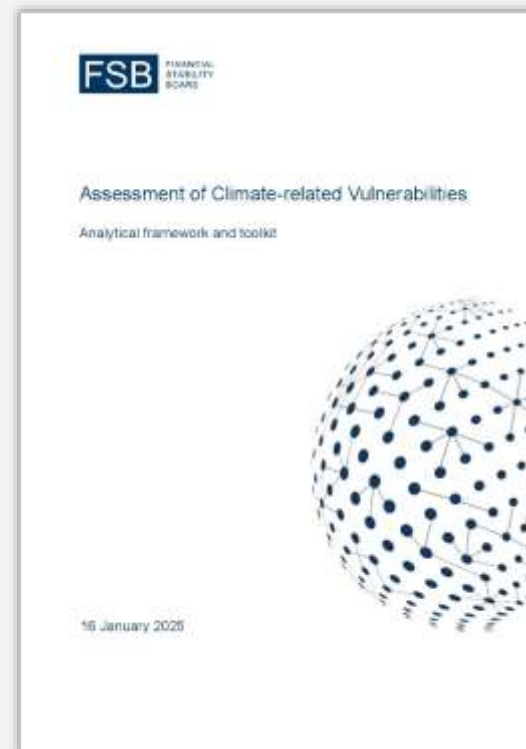
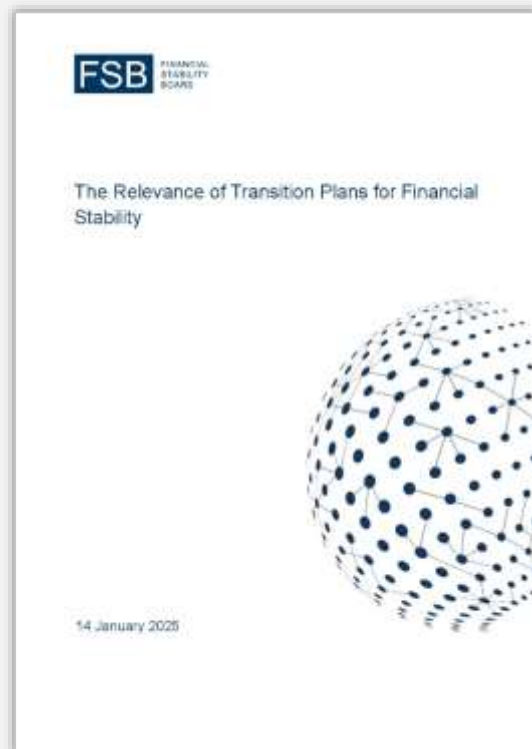
## Data

*Availability of data with which to monitor and assess  
climate risks (2021); FSB-NGFS joint report (2022)*

## Regulatory and supervisory practices and tools

*Supervisory and regulatory approaches to climate-  
related risks (2022); Relevance of transition plans for  
FS (2025)*

## Two reports published this year

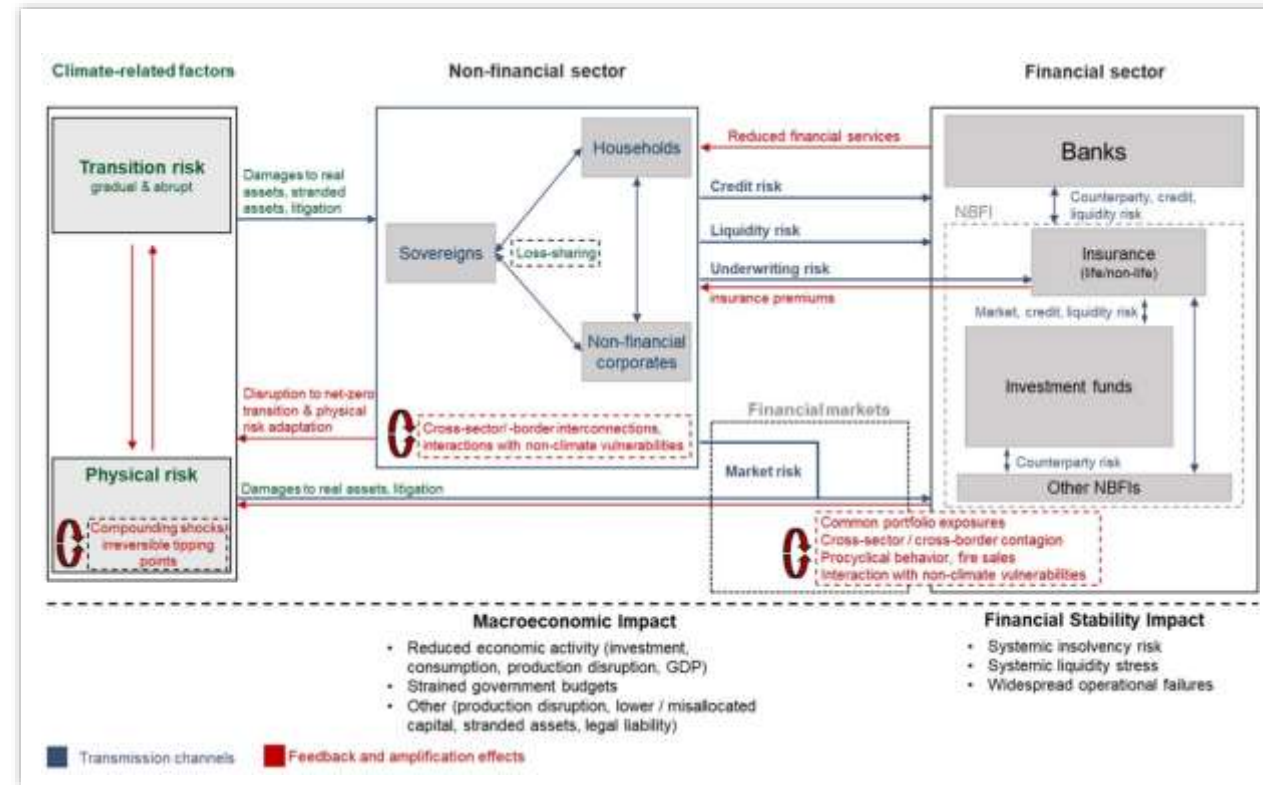


# FSB report on assessment of climate-related vulnerabilities

**Objective of the FSB work:** Build and strengthen FSB’s analytical basis for monitoring climate-related risks to financial stability

Phase	Objective
2022	Identified climate-related vulnerabilities affecting financial stability that warrant close monitoring at the cross-sector and cross-country level.
2023	Computed metrics based on currently available data Qualitative insights based on outputs from scenario analysis by members
2024	Developed a new analytical framework for the FSB to 1) trace how physical and transition climate risks can be transmitted and amplified by the global financial system, and 2) toolkit of potential <i>forward-looking</i> metrics to monitor climate-related vulnerabilities
2025	<b>FSB report published</b> <i>Live document, subject to refinement as our understanding evolves and as data and methodological challenges are resolved</i>

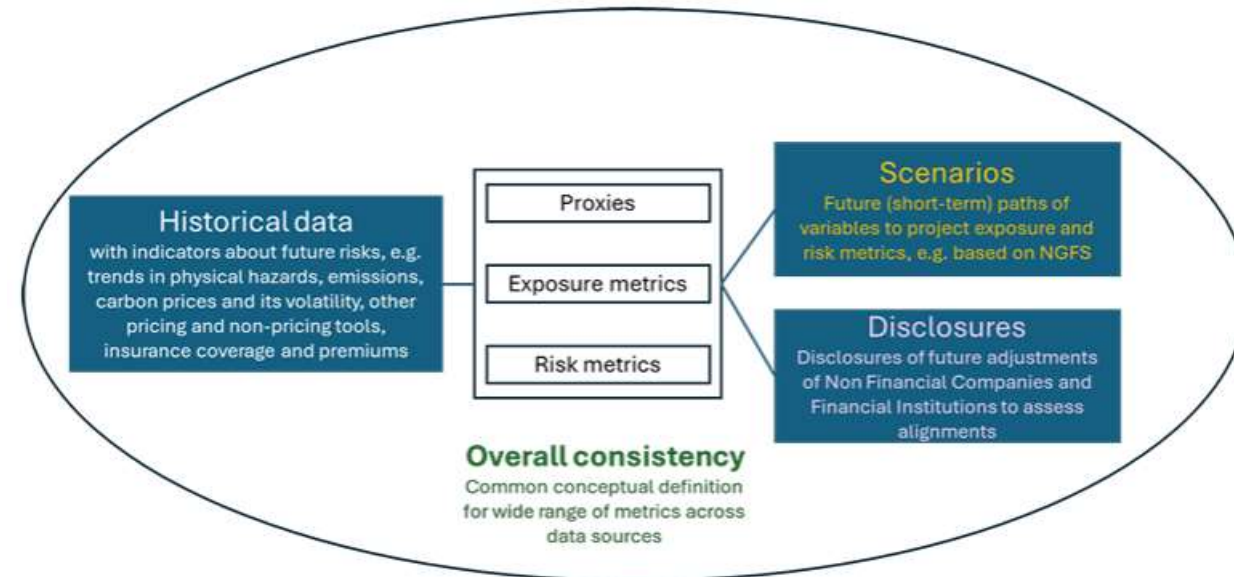
# Climate-related financial risks: Analytical framework and toolkit to assess vulnerabilities



# Analytical toolkit

- **Proxies** provide an early signal on potential drivers of transition and physical risks.
- **Exposure** metrics provide insights on how climate risk drivers (identified by proxies) could transmit through the financial system and affect different sectors (financial and non-financial).
- **Risk** metrics build on the information contained in proxies and exposure metrics to quantify the scale of financial impacts as climate shocks transmit through the financial system by interacting with vulnerabilities

## Making the metrics more forward-looking



# Toolkit (examples)

## Crude Proxies

## Exposure Metrics

## Risk Metrics

## Physical Risk



- Economic losses from climate physical hazards
- Exposure of FI's assets to climate physical hazards (locational)
- Insurance protection gaps
- Climate-stressed Loan-to-Value (LTV)
- Collateral adjusted exposure at risk (CEAR)
- Insurers' required capital for NatCat risk %

## Transition Risk



- Trends in absolute GHG emissions and carbon prices
- Weighted Average Carbon Intensity (WACI)
- Exposure concentration
- Carbon Earnings at risk
- Transition to corporate default risk
- Climate beta

# Next steps on the analytical framework

As part of its twin-track approach, FSB will:



- **Operationalise the toolkit:** Prioritise further analysis of a subset of metrics based on their relevance and feasibility.



- **Conduct deep dives** to provide concrete insights on specific types of climate-related vulnerabilities that may have global financial stability implications
- Progress in vulnerabilities is expected to inform other pillars of FSB's climate roadmap:
  - Data gaps to be filled*
  - Enhancing climate disclosures*
  - Design and application of regulatory and supervisory frameworks and tools*

# Deep Dives

To validate the framework and identify and test new metrics for quantification purposes

## Real estate deep dive

- How a climate-related physical shock to the real estate sector could impact financial stability
- In presence of insurance protection gaps
- First stage: Borrower risk characteristics affected by uninsured property damage / uninsured losses borne by government
- Second stage: Potential amplification mechanisms (banks' reduced lending / sovereign debt sustainability pressure)
- Metric: *Climate-stressed LTV ratio*


## Asset repricing

- Shifts in prices of market securities from physical or transition risks
- Changes in investor expectations and sentiment in response to a climate shock
- To drive asset repricing
- Looking also at cross-border and cross-sectoral transmission channels



# Thank you

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 +41 61 280 8844

 [fsb@fsb.org](mailto:fsb@fsb.org)

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