

Climate change - an emerging risk for financial stability

The 13th Edition of the Seminar on Financial Stability Issues
Inclusion and Financial Stability
Bucharest 11-14 September 2019

Outline

- 1. Climate change as a financial risk**
- 2. Climate change on the policy agenda**
- 3. The way forward**

Outline

1. **Climate change as a financial risk**
2. **Climate change on the policy agenda**
3. **The way forward**

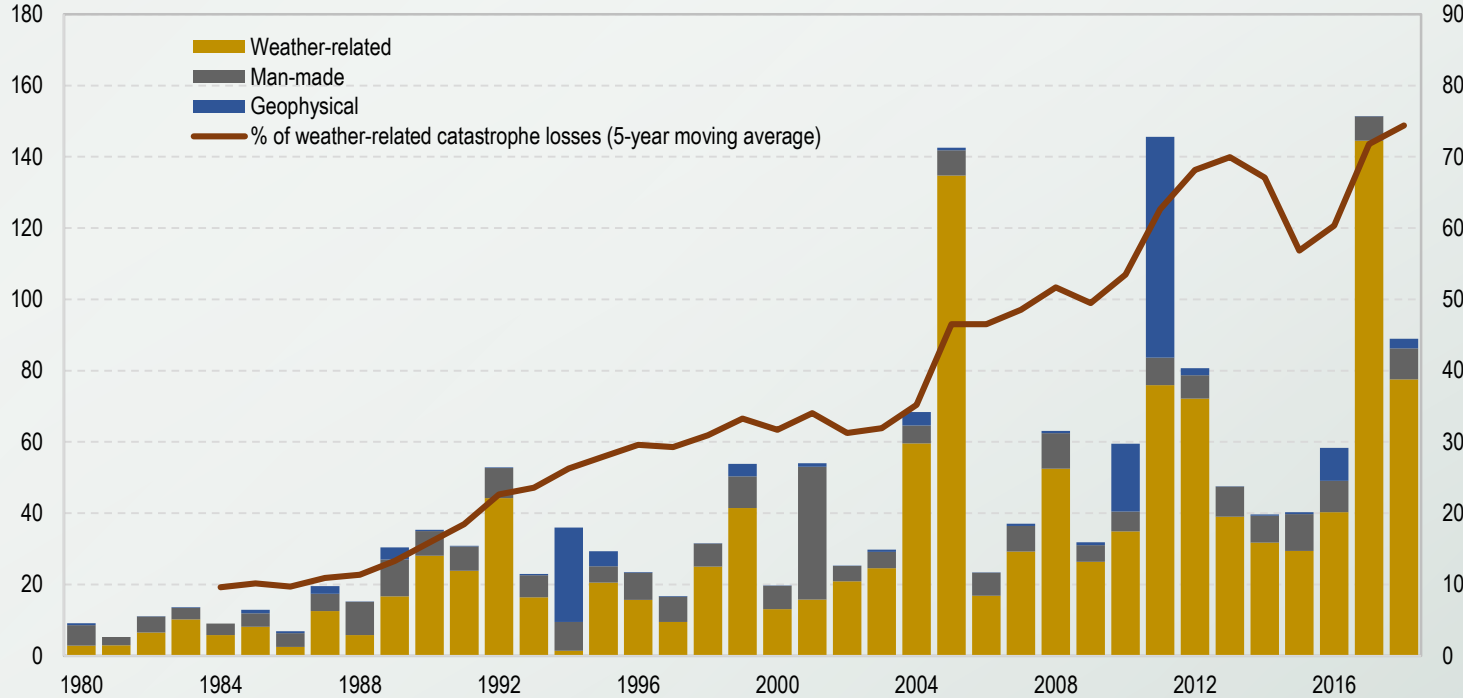
Climate change as a financial risk

- With temperatures set to increase to 1.5 degrees above average global pre-industrial levels, the risks to the financial sector could be substantial.
- Types of risks:
 - Physical risk : deriving from direct damage to property or trade disruption (e.g. the implications of rising sea levels or more extreme weather conditions)
 - Transition risk: financial risk arising from the transition to a low-carbon economy (e.g. the loss in value of carbon-intensive assets that become stranded in the transition to a low-carbon economy)

Physical risk is increasing

- Physical risk is increasing, as evident from an increase in weather-related losses from natural catastrophes.
- Paris agreement objective is to limit temperature increases to 1.5 degrees above average global pre-industrial levels.

Global catastrophe losses by category from 1980-2018 (left: billions \$, right: share in total losses)

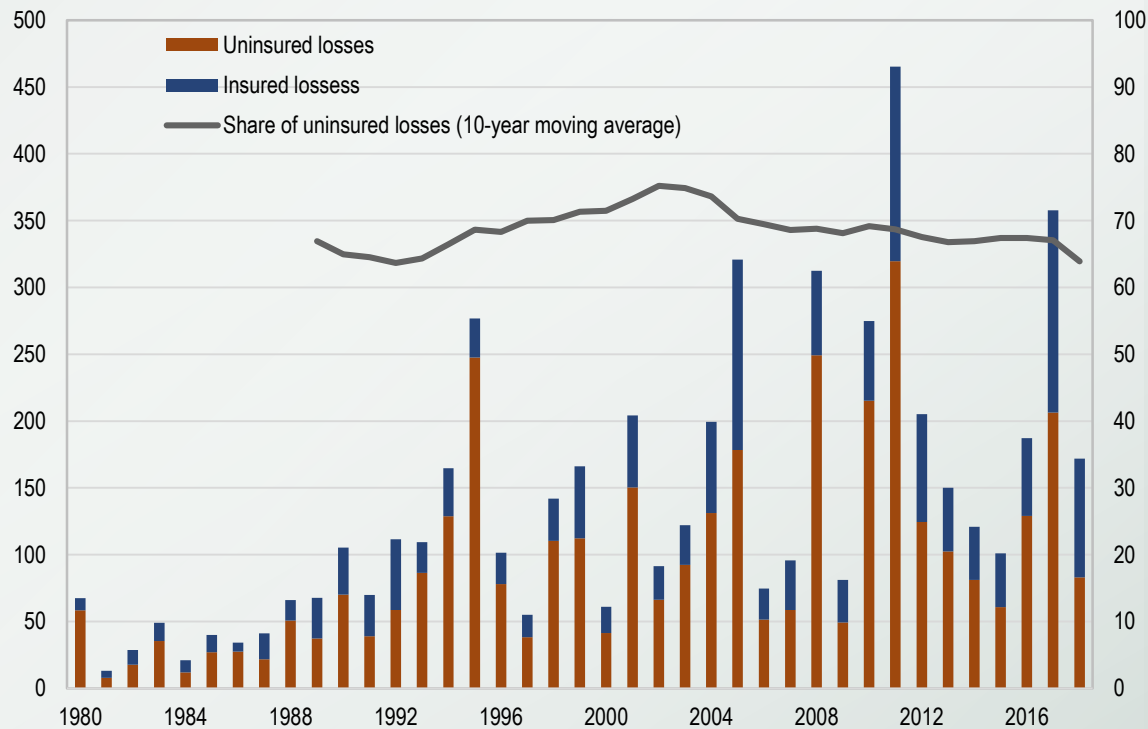


Sources: Sigma explorer, BS calculations

Physical risk may be underestimated

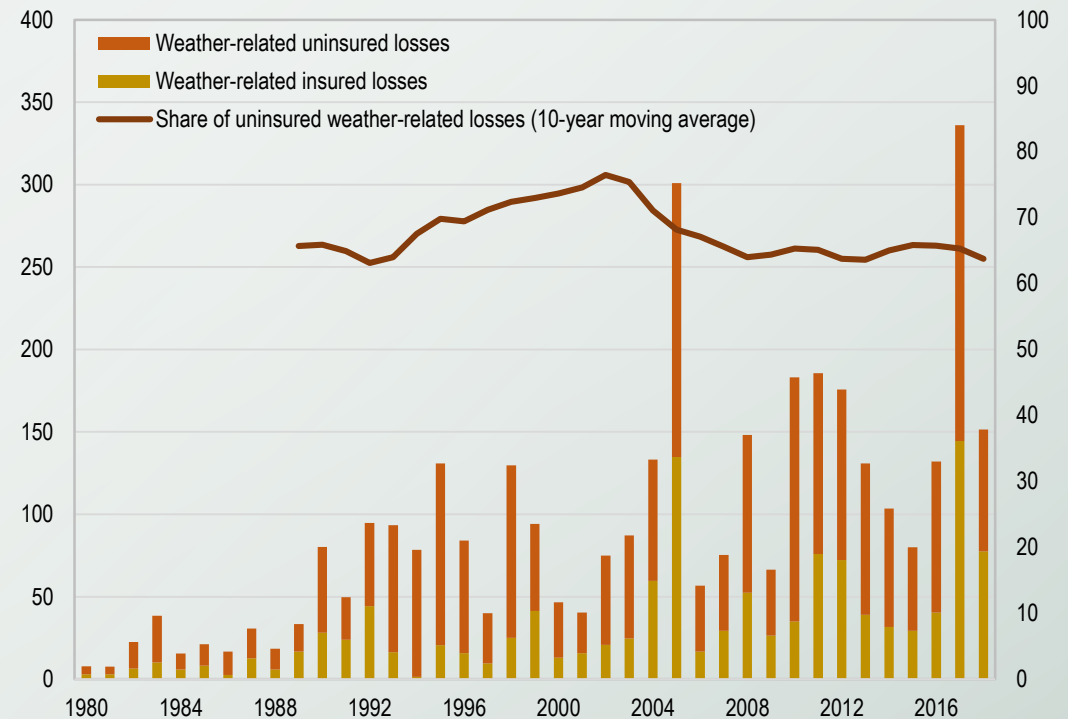
- Another key concern is the magnitude of overall losses, which are still largely uninsured.
- The share of uninsured weather-related losses is persistently high and typically over 60%.
- This indicates a potential underestimation of the overall costs (stemming from physical risk).

Global catastrophe insured and uninsured losses by type (left: billions \$, right: share of uninsured losses in total losses, %)



Sources: Sigma explorer, BS calculations

Weather-related insured and uninsured losses (left: billions \$, right: share of uninsured losses in total weather-related losses, %)

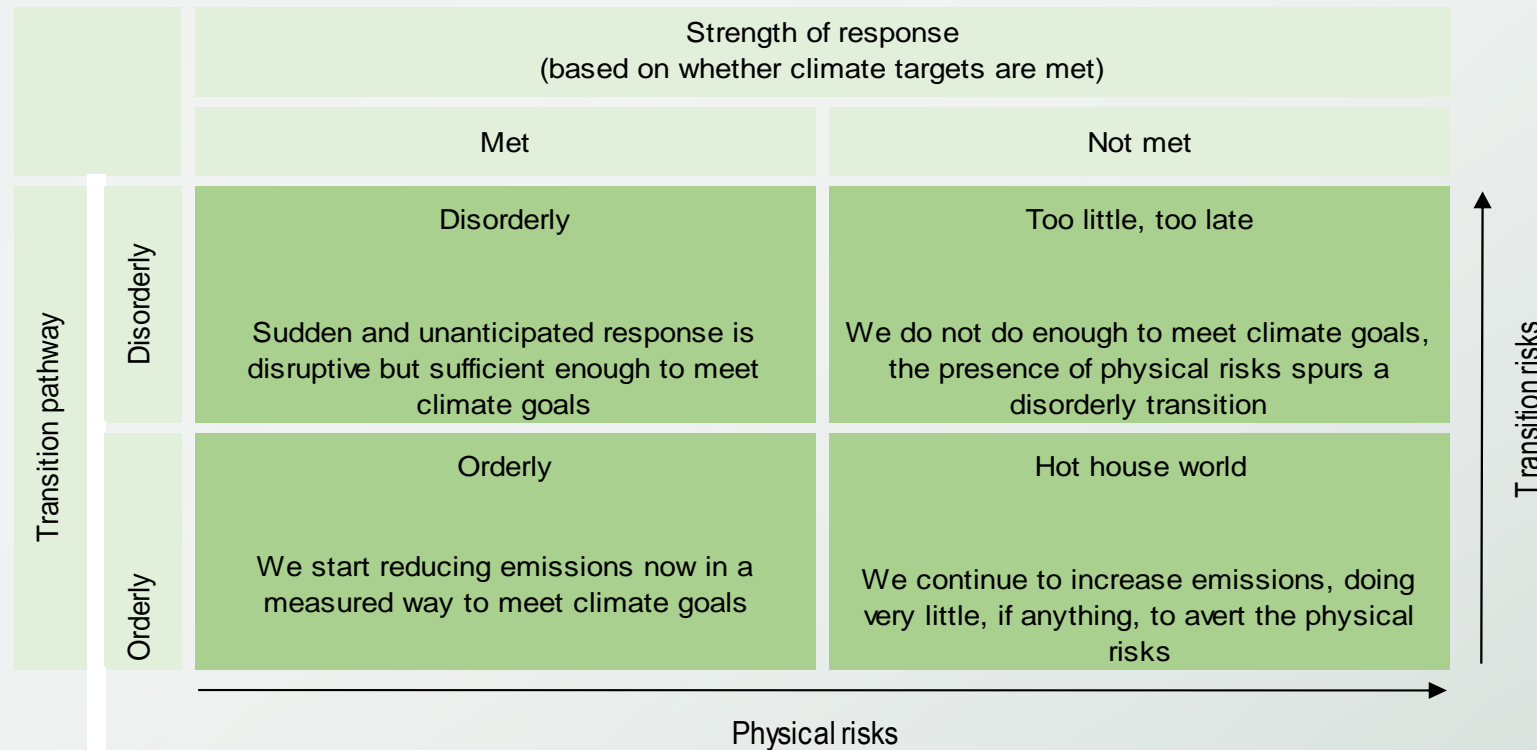


Sources: Sigma explorer, BS calculation

Transition risk hinges on the transition pathway

Transition risk is set to increase. Managing the transition can lead to various outcomes.

Physical versus transition risk: temperature scenarios and the cost of climate change



Source: NGFS (2019)

Outline

1. **Climate change as a financial risk**
2. **Climate change on the policy agenda**
3. **The way forward**

Climate change on the policy agenda

- Climate change is gaining traction on the policy agenda as well.
- The European Commission is developing a green taxonomy, a green bond standard and a corporate disclosure framework.
- Overarching institutions such as the ECB, EIOPA and ESMA are actively looking into climate risks.
- The NGFS is a global organization which joins central banks and regulators with an interest in climate risk.

Climate change matters for CBs as well

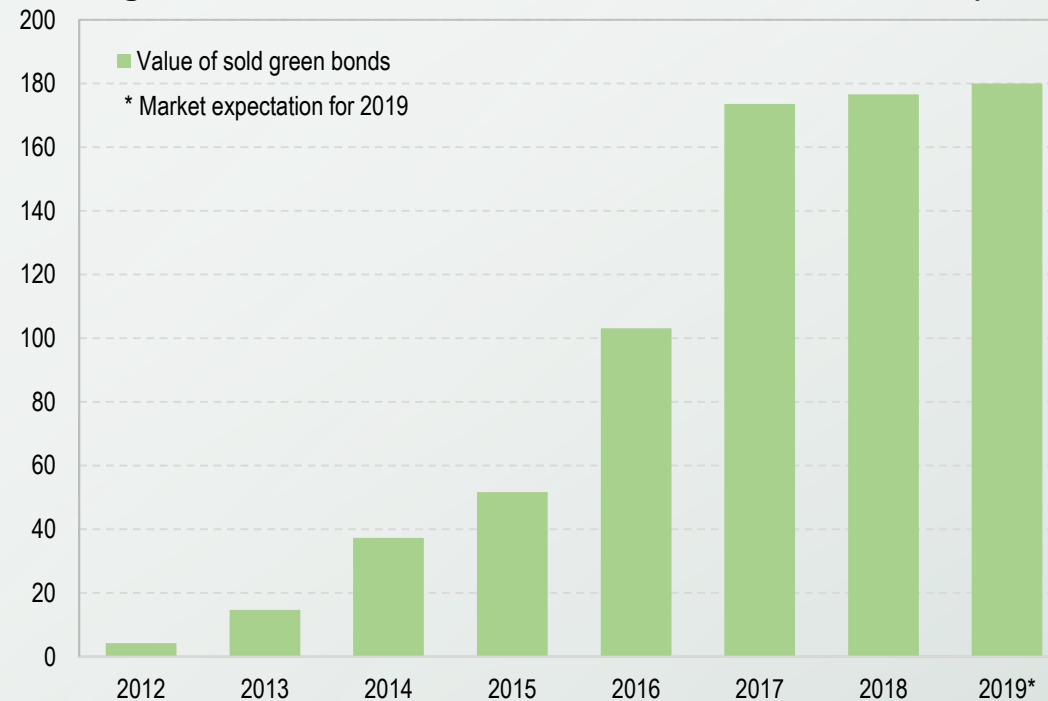
- Climate change is a potential concern for CBs in terms of price and financial stability.
- Climate change affects commodity prices and thus overall price stability.
- Climate change is a financial risk and thus a potential threat to financial stability:
 - across various institutions (bank vs. non-bank)
 - across various sectors (NFCs vs. HH, climate-sensitive economic sectors)
 - across various asset classes (stranded assets)

Climate change can be factored in within portfolio management

● Portfolio management:

- ESG (environment, society, governance) is an investment strategy which is gaining traction across the financial world.
- Green investing is on the rise as well, as evident from a marked increase in recent years.
- Despite the increase, the share of green bonds is negligible compared to the overall size of the bond market.

Global green-bonds sales across all currencies from 2012-2019 (in billions \$)



Source: Bloomberg New Energy Finance

Climate change can be embedded within the macroprudential framework

- Risk monitoring - preliminary work entails mapping sectoral exposures to climate risk by identifying the most vulnerable sectors to climate change:
 - fossil fuel
 - energy-intensive sectors
 - utilities
 - transport
 - housing
- Stress tests - climate risk is a systemic risk but scenario design poses methodological challenges and requires interdisciplinarity.

Outline

1. **Climate change as a financial risk**
2. **Climate change on the policy agenda**
3. **The way forward**

The way forward

- Climate change is increasingly acknowledged as a financial risk.
- The work on climate risks is intensifying but is admittedly in its early stages:
 - Main issues include green taxonomies and data availability. The EC has been actively contributing to this aim.
 - Greater data granularity will serve to further enhance the quality of the overall risk framework.
- Role of CBs to be developed further.