



# Climate stress-testing

**Lucia Alessi**

**Team Leader – Financial Research**

*European Commission – Joint Research Centre*

The content of this presentation does not necessarily reflect the official opinion of the European Commission. Responsibility for the information and views expressed therein lies with the presenter.

# Climate risk assessment toolkit

## Scenario analysis

**Long term:** 30 years

**Objective:**

Structure thought on implications of policy-induced emission pathways.

How might policy-induced climate paths impact the fin. system?

Provide forward-guidance to financial sector

## Efficacy / feasibility assessment

**Medium term:** 5-8 years

**Objective:**

Identify bottlenecks to the green transition.

Are households constrained?

Are climate-risks macro-critical factors (impact on sovereign)?

Efficacy of the financial system to finance green transition

## Climate stress test

**Short term:** 3-5 years

**Objective:**

Assess short-term vulnerabilities of the financial system.

Key tool for policy

# Challenge #1: nature of the shocks

- Need to evaluate short-run consequences of long-run risks
- In traditional stress testing the negative shock hits the real economy, then we look at impacts on the financial system
- Climate-related shocks spreading via the real economy and hitting the financial sector: not credible in the short-term
  - Policy implementation is always very gradual
  - There will be winners and losers, but no negative impacts at the aggregate level

# Challenge #2: granularity of the data

- Need for firm-level data
- Winners and losers can be within the same sector
  - E.g. energy
- Even within high-carbon sectors firms can be green
  - E.g. cement and steel
- Labelling entire sectors as ‘doomed’ sends the wrong message: we need to finance the transition of those sectors

# Thank you



© European Union 2023

Unless otherwise noted the reuse of this presentation is authorised under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.