



Impacts of Climate Change – Risks and Opportunities for Financial Institutions

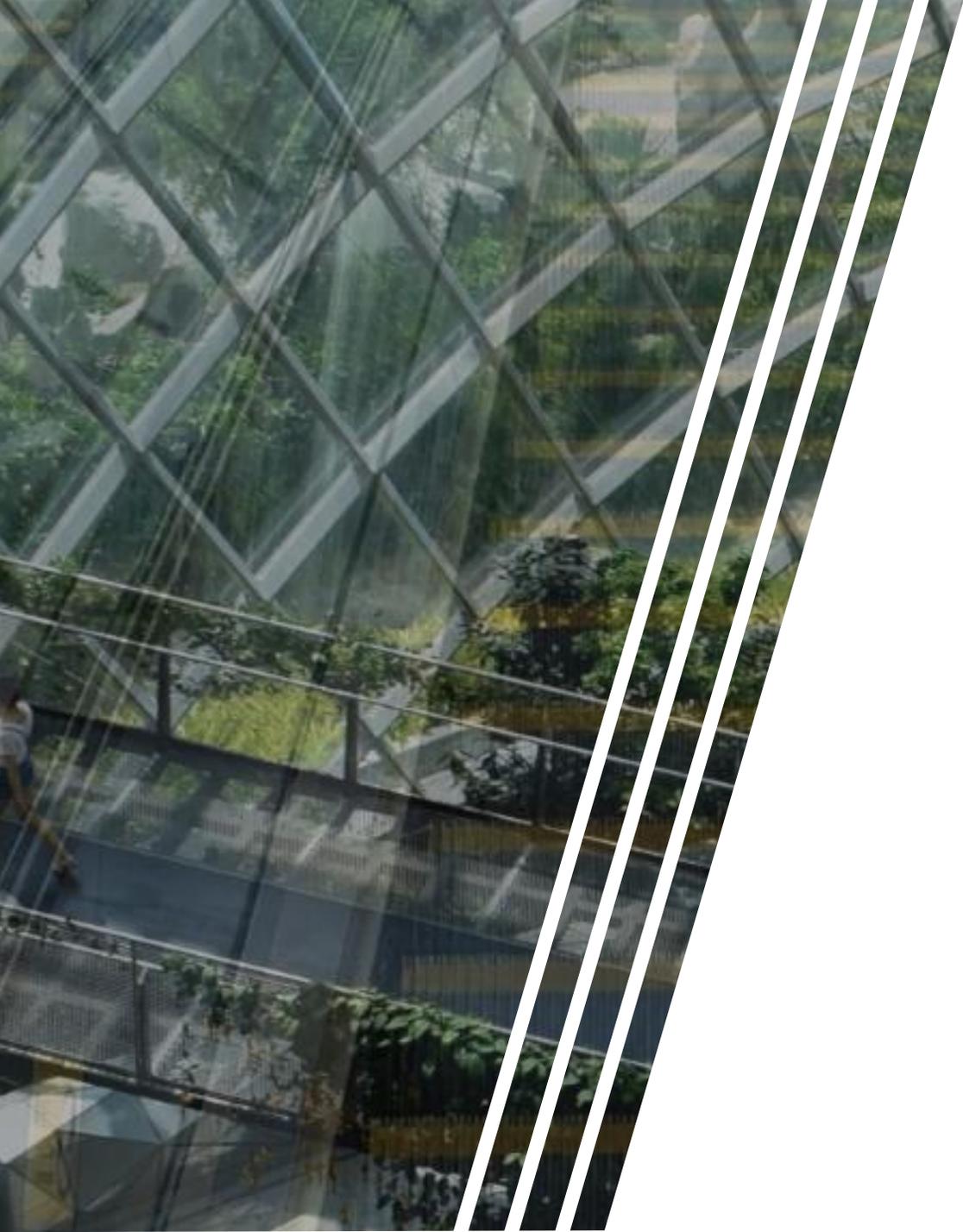
ADB Roundtable for Financial Institutions Clients

24 November 2022

Bernhard Bartels, Group Managing Director

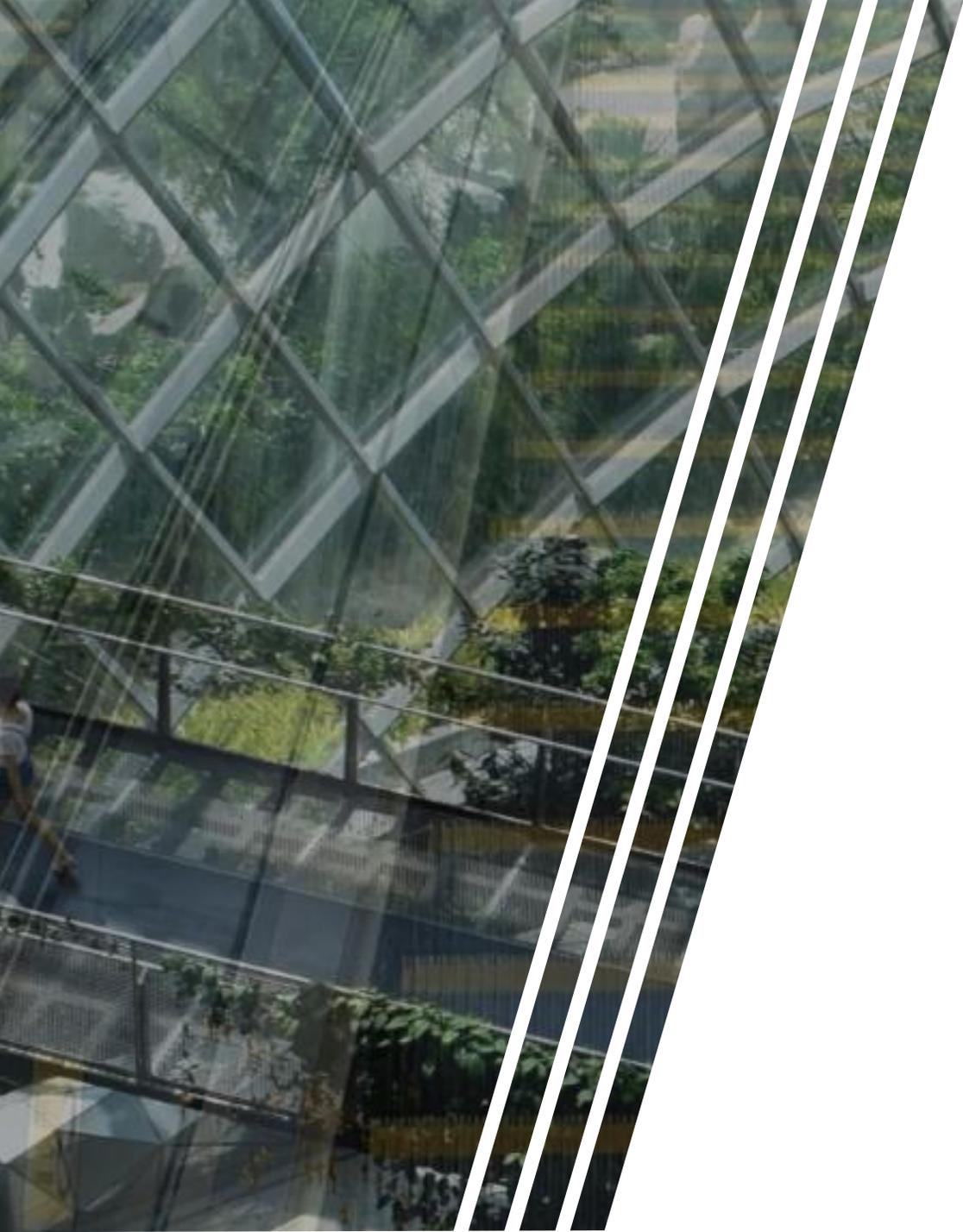
Scope ESG Analysis GmbH

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Agenda

- Why Climate Risk Analysis?
- The use case of NGFS scenarios
- Climate stress across countries and regions



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Managing evolving risks from climate change

Importance of climate risk analysis



Regulation

Policy-makers require FMPs to use climate stress test analysis to measure their exposure



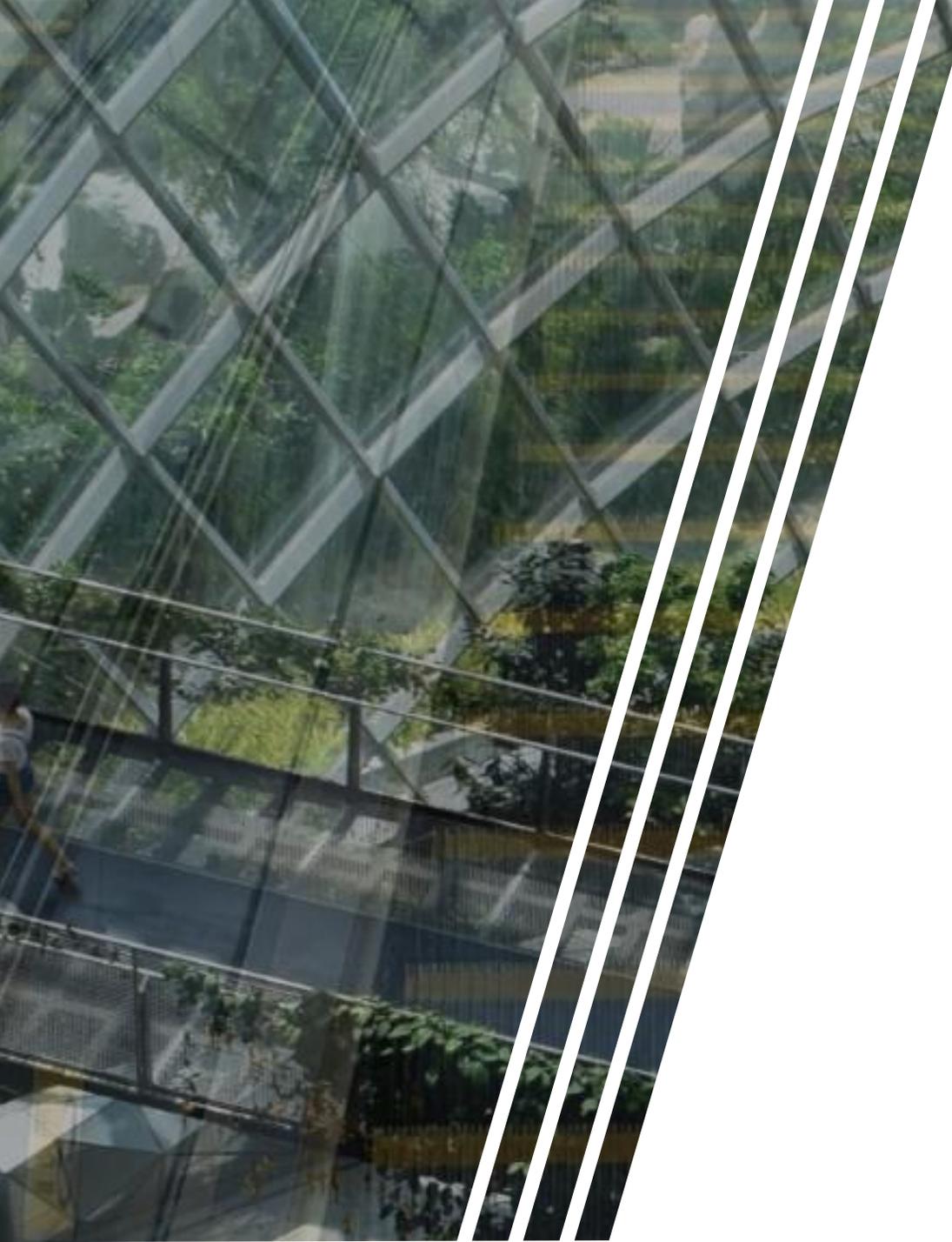
Risk management

Climate-related risks need to be incorporated in risk management systems



Portfolio strategy

Climate stress tests can lead to a risk-averse portfolio strategy and ESG engagement

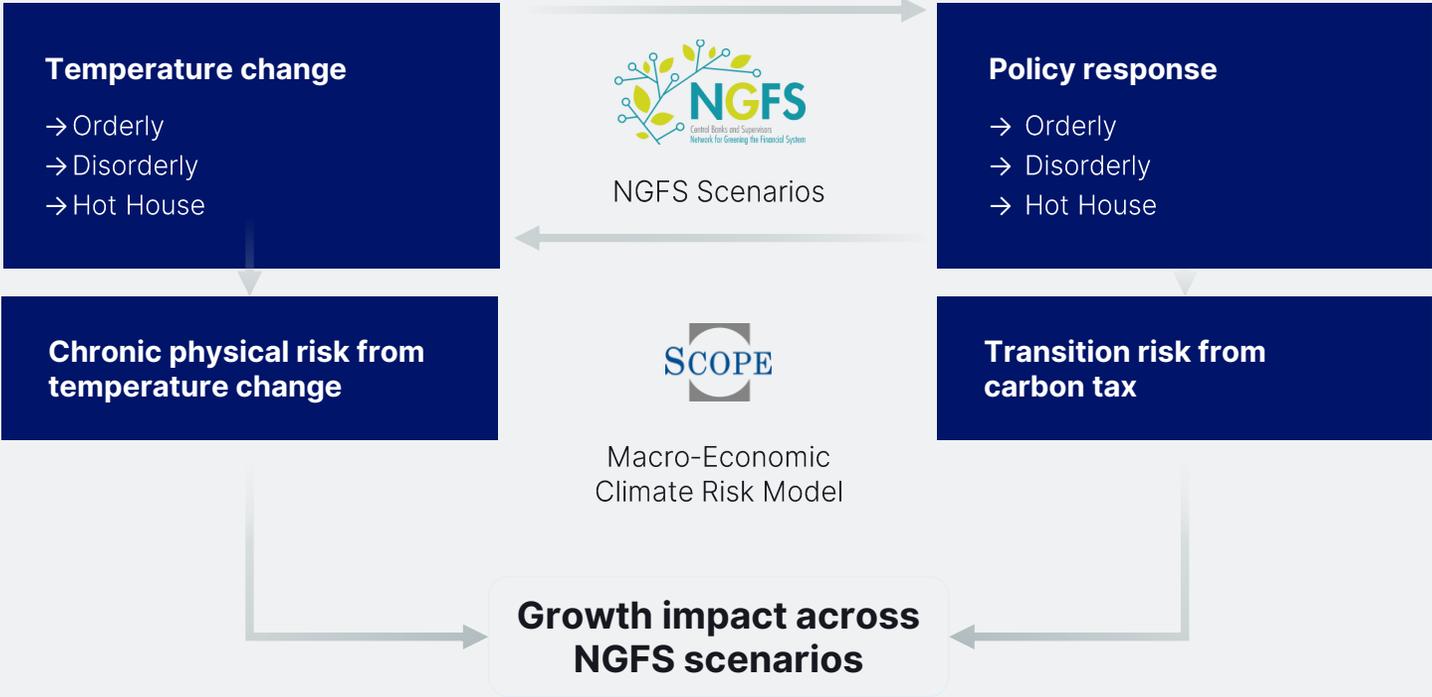


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NGFS: Evolution of carbon trajectories across the globe

Methodology highlights

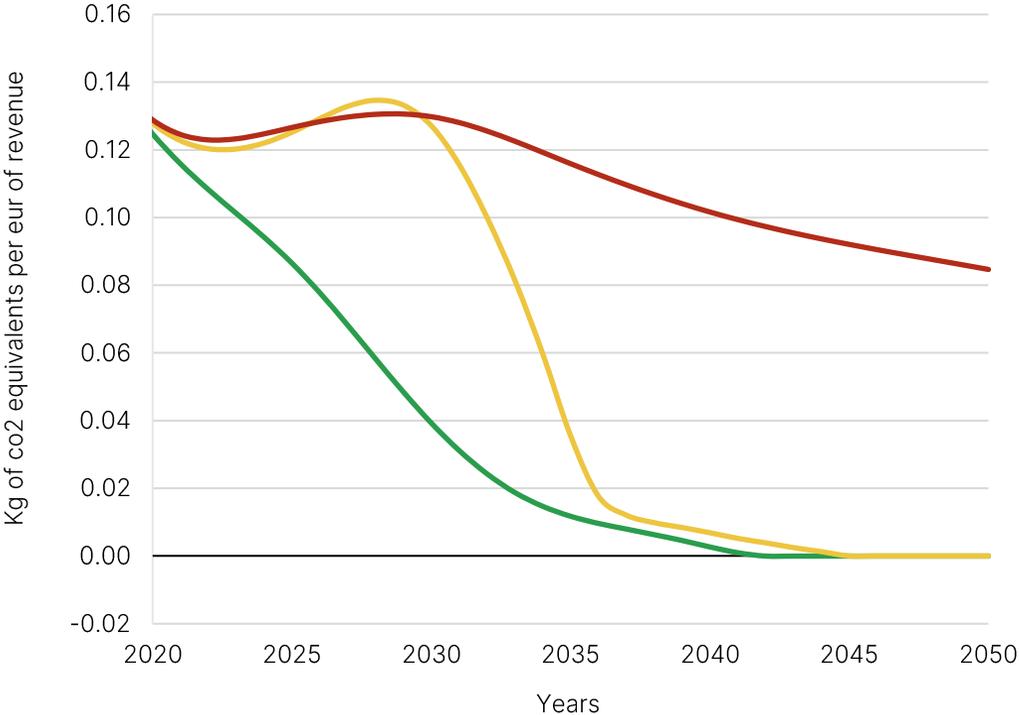


Carbon intensity and carbon price

The case of Germany

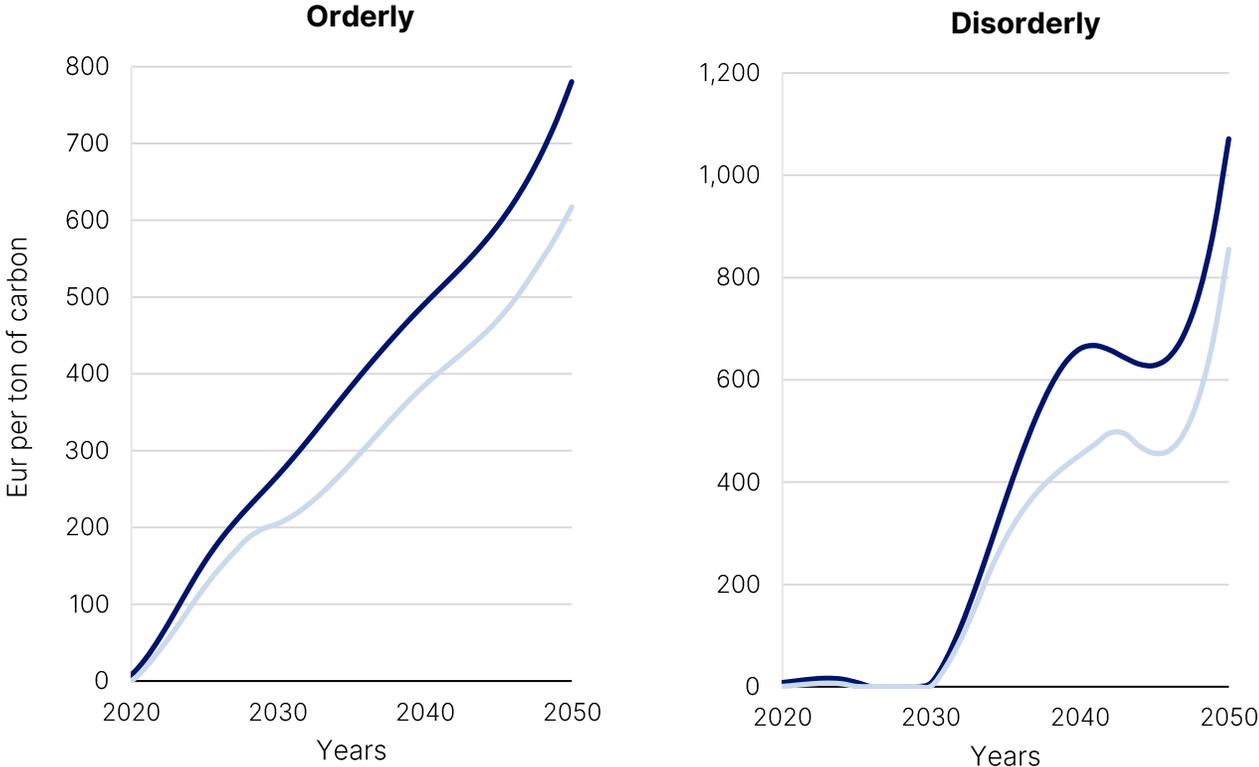
Three NGFS Scenarios

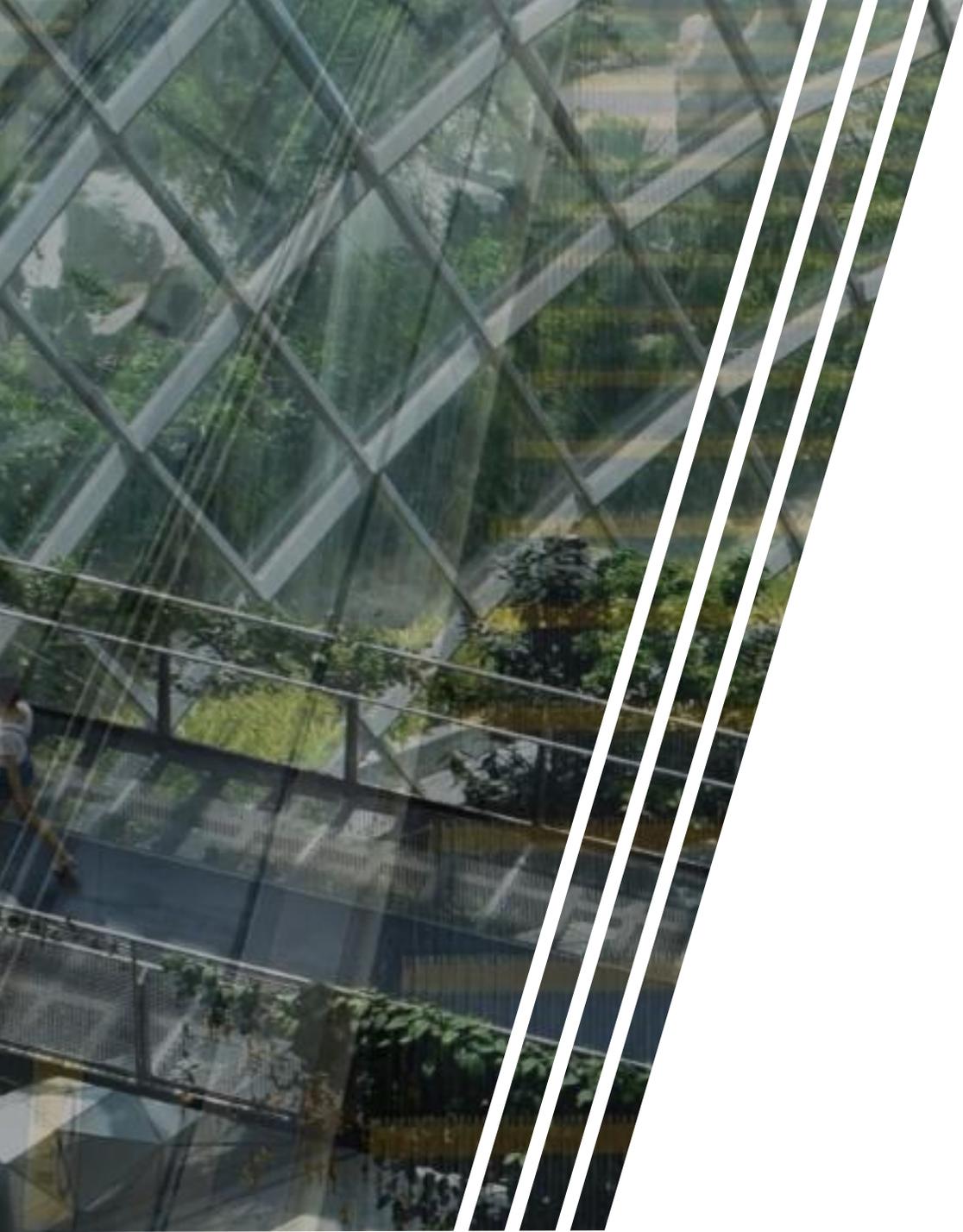
Orderly Disorderly Hot house



Implied carbon price trajectories

Germany World



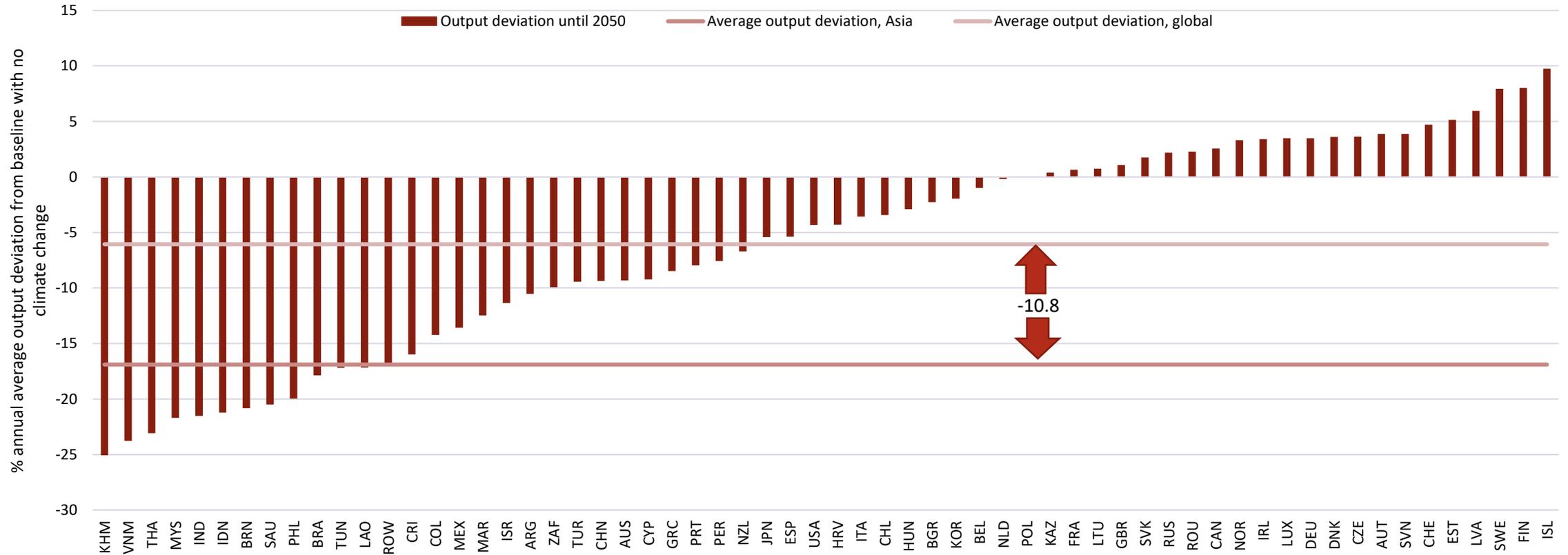


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How does climate change affect long-term growth across countries?

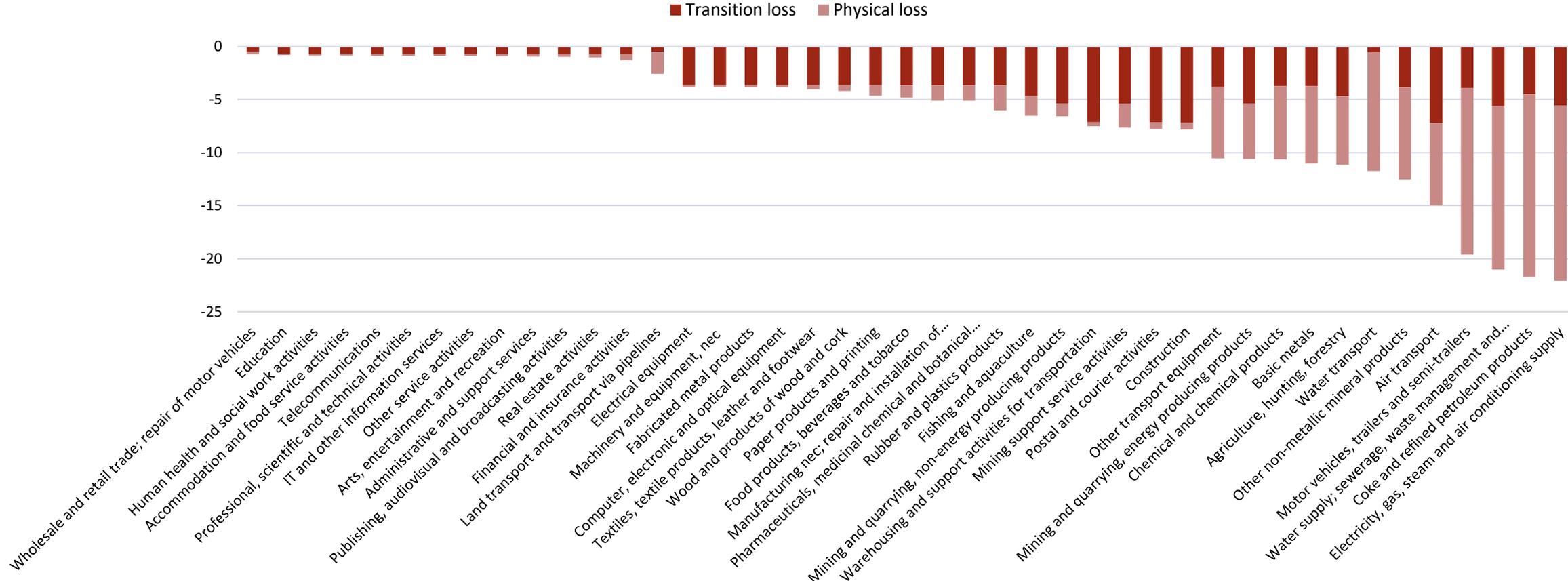
NGFS orderly scenario (average annual output deviation between 2020 – 2050)*



* Scenario Analysis based on 65 OECD countries, integration of carbon taxation scenarios from NGFS and physical risk evolution using historical data on growth and temperature; Sources: OECD input output tables, Emissions Database for Global Atmospheric Research (EDGAR)

How does the output response change across sectors?

NGFS orderly scenario (average annual output deviation in 61 countries, 2030)*



* Scenario Analysis based on 61 OECD countries, integration of carbon taxation scenarios from NGFS and physical risk evolution using historical data on growth and temperature; Sources: OECD input output tables, Emissions Database for Global Atmospheric Research (EDGAR)



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