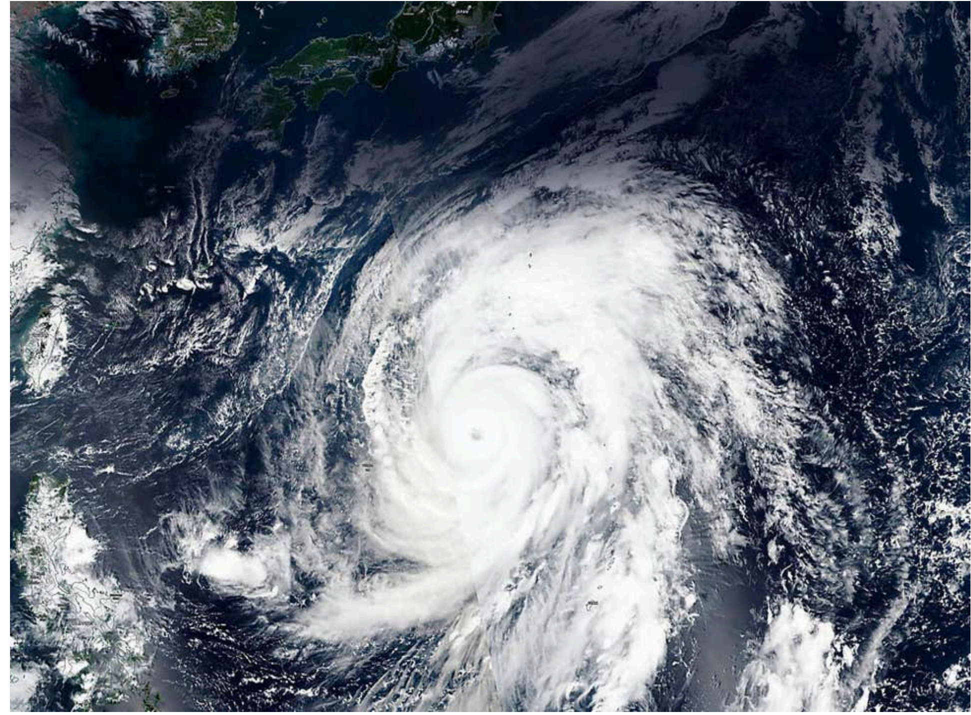
# Managing Climate Related Financial Risks: Implications for Financial Institutions and Supervision



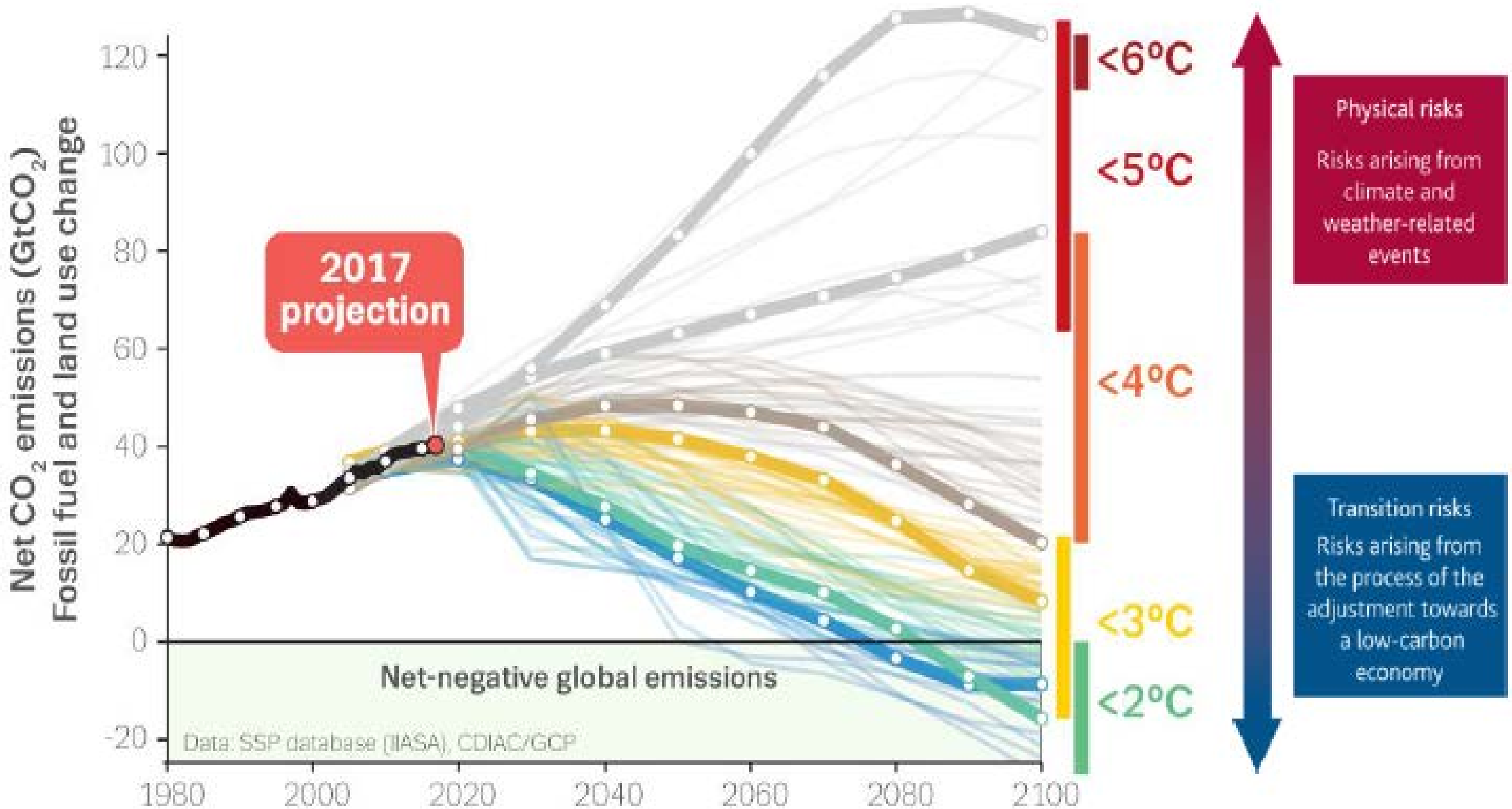
Martijn Regelink, Senior Financial Sector Specialist, World Bank

Washington, October 25 2019

# Agenda

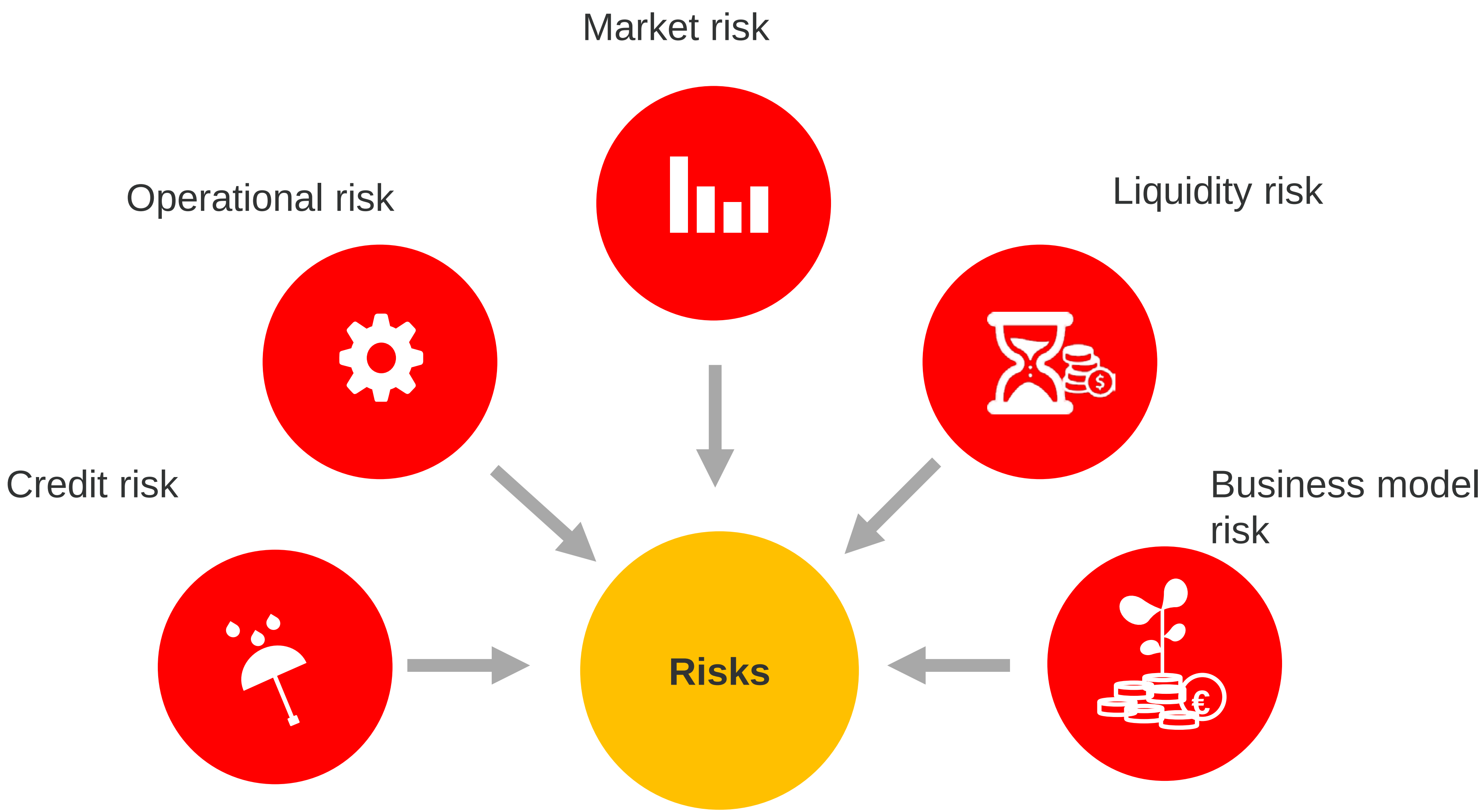
# The impacts of climate change and climate related natural disasters pose risks to the soundness and stability of the financial sector

**Projected CO2-emmision paths and type of associated risks**




Source: Bank of England (2018). Transition in Thinking. The Implications of Climate Change on the UK Banking Sector

# Physical and transition risks translate into financial risks

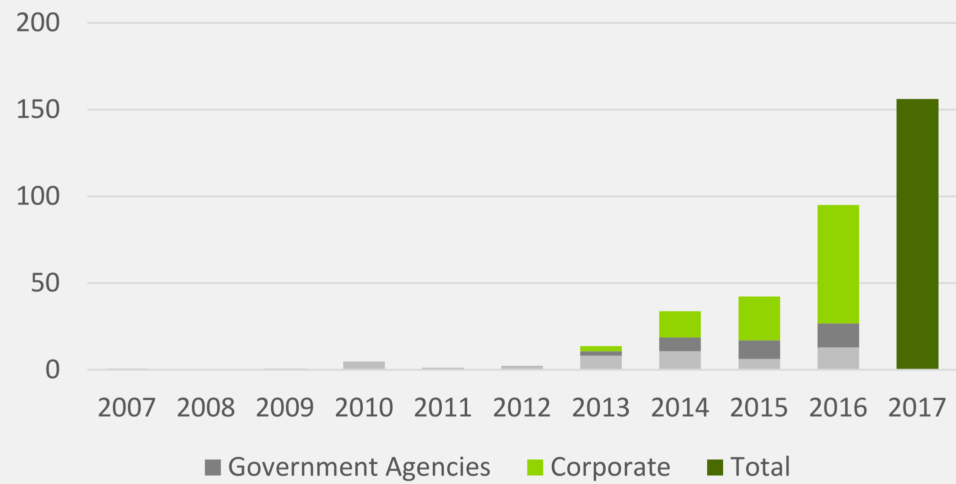


# Green finance developments can also lead to risks

## Drivers of green finance

- **Investment opportunities**
- **Management of brown risks**
- **Taking social responsibility**

**Green bond market evolution**



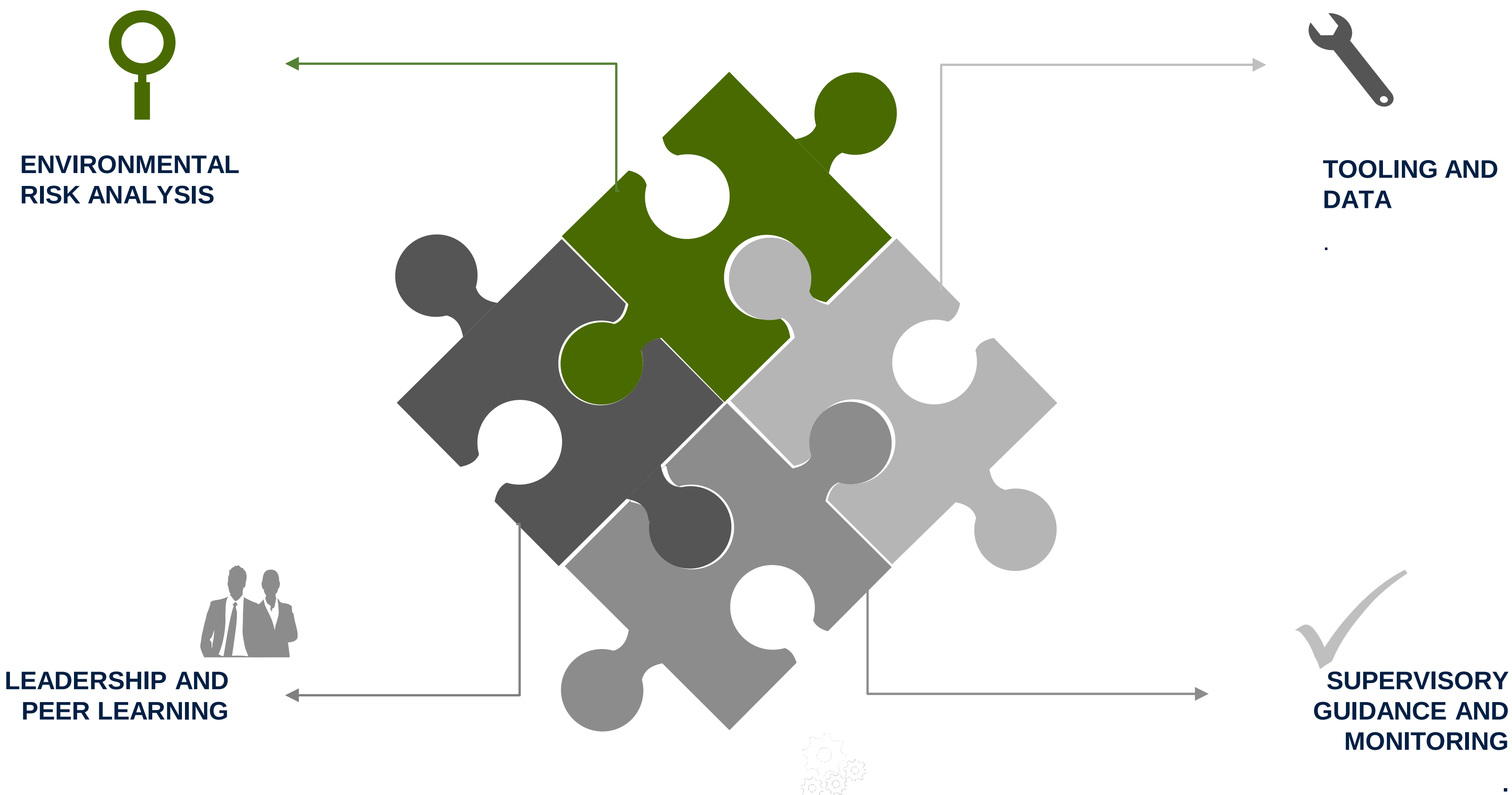

## Risks of green finance

**Green washing**

# While progress is being made, financial sector participants have difficulties to deal with these risks

| | |
|---|---|
| Risk management | • Limited understanding of risks and lack of integration in core functions of risk management. Tools and data to asses risks are just emerging |
| Governance & strategy | • Risks are not imbedded in strategies, with lack of clear board and senior management responsibilities and awareness |
| Disclosure | • Limited transparency on climate related risks, in and outside the financial sector |
| Green finance | • Limited capacity to originate green finance |
| Pricing externalities | • Lack of incentives and long term commitments by governments, make it difficult for FIs to price in risks adequately. |

# What steps to take in supervision? A selection of relevant challenges for supervisors in emerging markets



# Challenge 1: building a better understanding of climate-related impacts in emerging markets

- Front runners, like BoE and DNB have started with assessing risks, building a narrative that helped to get other stakeholders along
- For regulators from developing countries there is a need to better understand the unique ways that local financial sectors can be affected by climate change

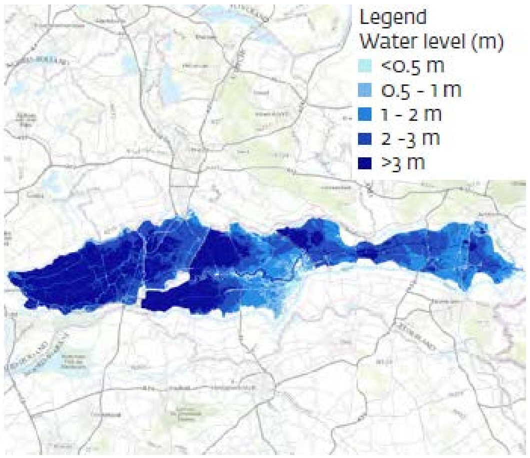
**Example of a climate risk assessment by DNB (2017)**


| Physical risks | Transition risks |
| --- | --- |
| General insurers | CO2-intensive assets |
| Flood risk | Green finance |

Source: DNB (2017). Waterproof: An Exploration of Climate Related-Risks for the Financial Sector

# Example of measuring physical risk exposure

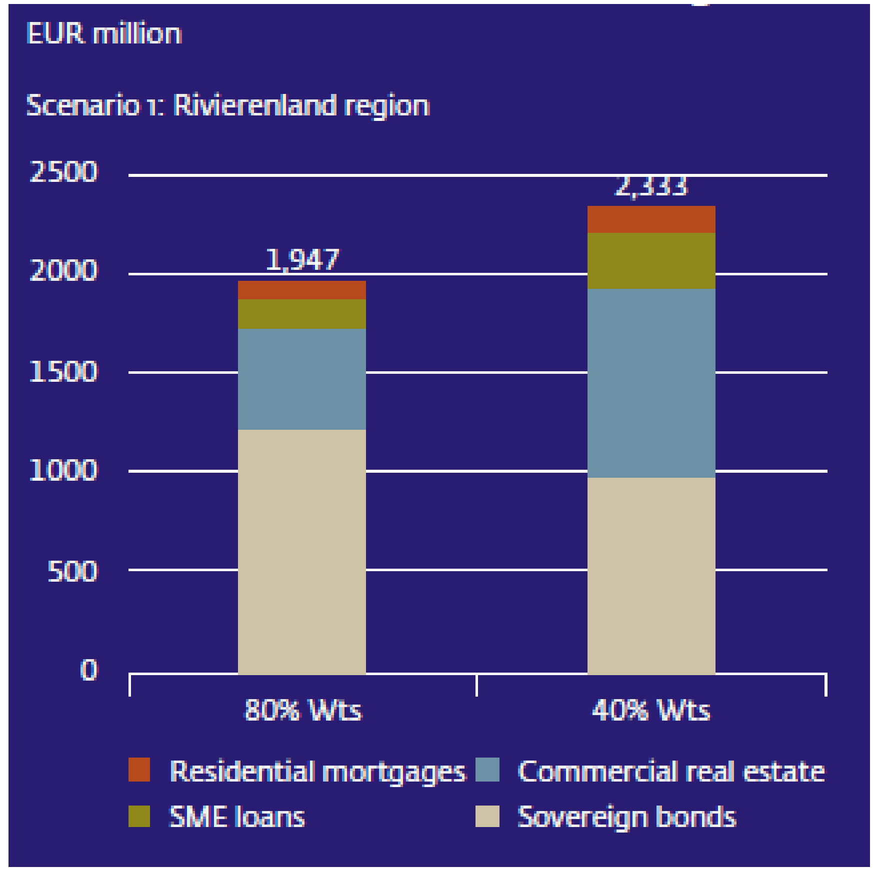
## Scenario of a severe flood




**Estimated breaching probability**
1 / 1,110 per years

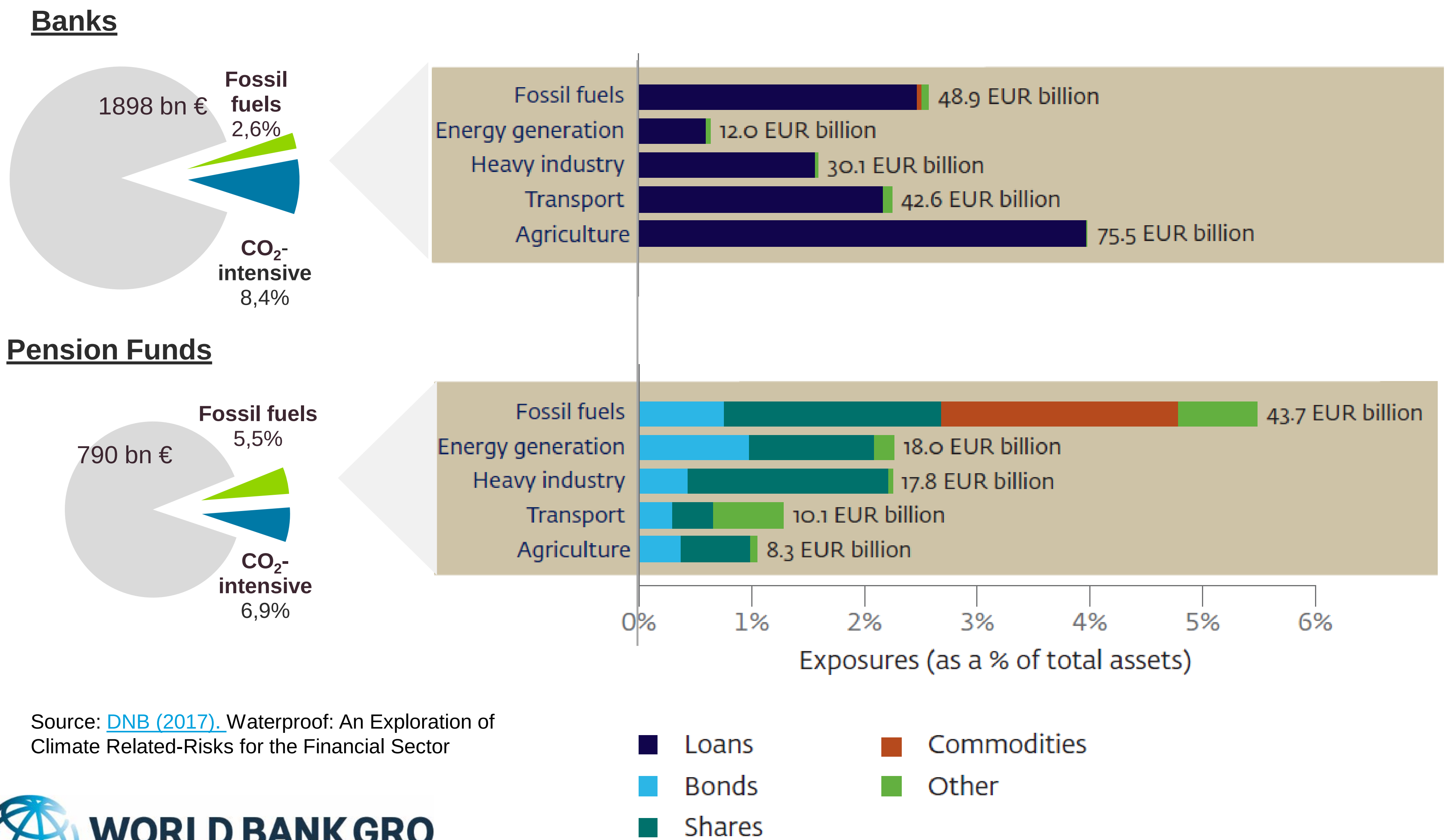
| **Estimated losses** | | |
|---|---|---|
| Residential property | EUR | 15.6 billion |
| Business (exc. suspension of activities) | EUR | 11.8 billion |
| Suspension of business activities | EUR | 8.5 billion |
| Infrastructure | EUR | 2.0 billion |
| Other | EUR | 19.7 billion |
| **Total** | **EUR** | **57.6 billion** |

## Estimation of pottential impact on credit losses and sourvereign bond portefolio's




Source: DNB (2017). Waterproof: An Exploration of Climate Related-Risks for the Financial Sector

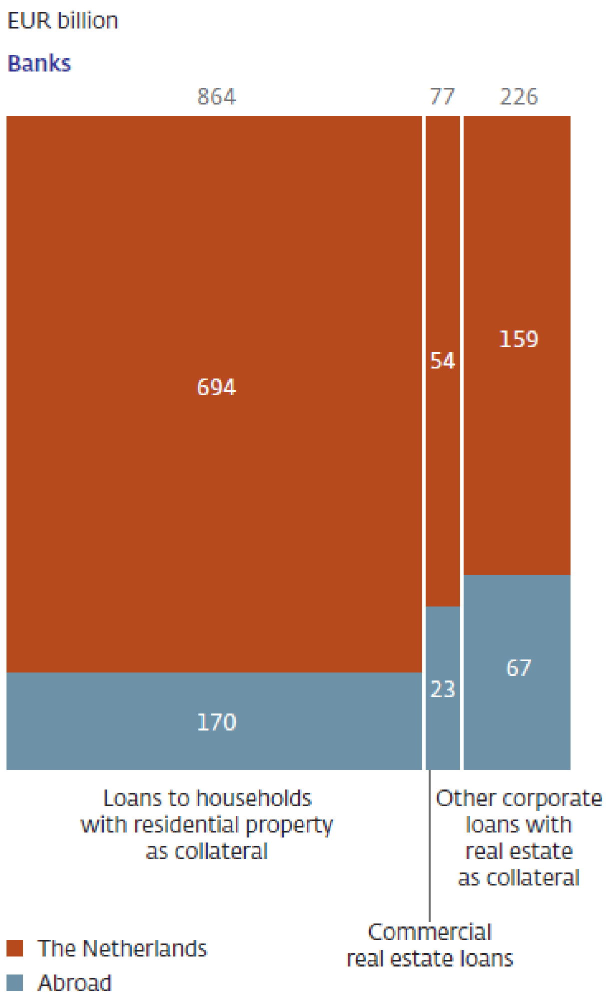
# Example of measuring transition risk exposure



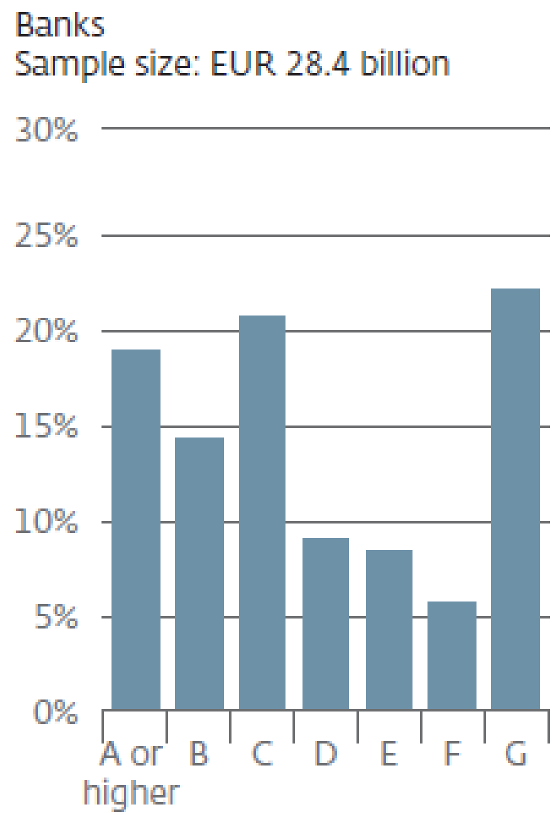

Source: DNB (2017). Waterproof: An Exploration of Climate Related-Risks for the Financial Sector

# Example of measuring transition risk exposure

## Real estate exposures




## Energy label distribution commercial real estate




Source: DNB (2017). Waterproof: An Exploration of Climate Related-Risks for the Financial Sector

# Important to take the unique context into account when assessing impacts

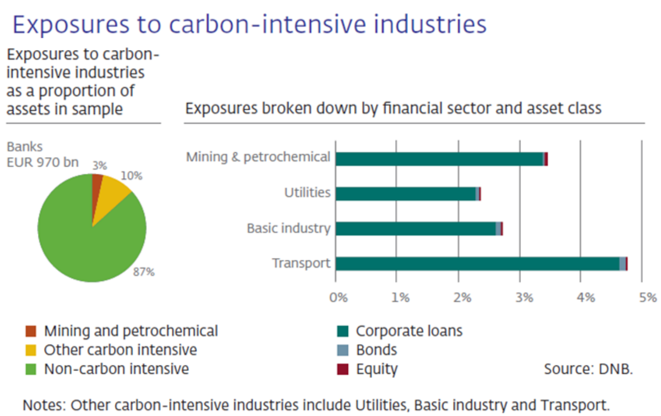
**Examples of differences in ways that climate risks affect financial sectors in emerging markets**

| Physical risks | Transition risks |
|---|---|
| Severity of current and future impacts | Time horizons perceived differently |
| Lack of insurance | Channels could be very different |
| Sector concentration and structure | Environmental issues at the forefront |

# Challenge 2: beef up data collection and build tools to quantify risks

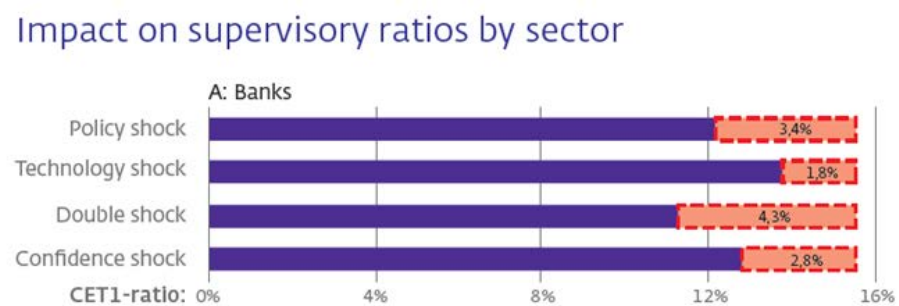
## Improving information collection

- Granular geospatial exposure data
- Breakdowns in industry level data sets per asset class
- Information on green / brown assets based on taxonomies and labels
- Relevant credit metrics (terms, NPLs, POD and LGDs)




## Introducing stress tests

- To quantify risks, macro-level stress test capacity can be developed
- For physical risks this exercise is more straight forward, and a likely starting point
- Defining transition scenario's is a difficult process. Work by networks such as NGFS can help.




Source: DNB (2018). An Energy Transition Stress Test

# Challenge 3: integrating climate risks in sector guidance and supervisory approaches

**Progress**

- Numerous jurisdictions have introduced E&S guidance on risk management, governance and disclosure, including China, Brazil and Bangladesh

**Climate risks**

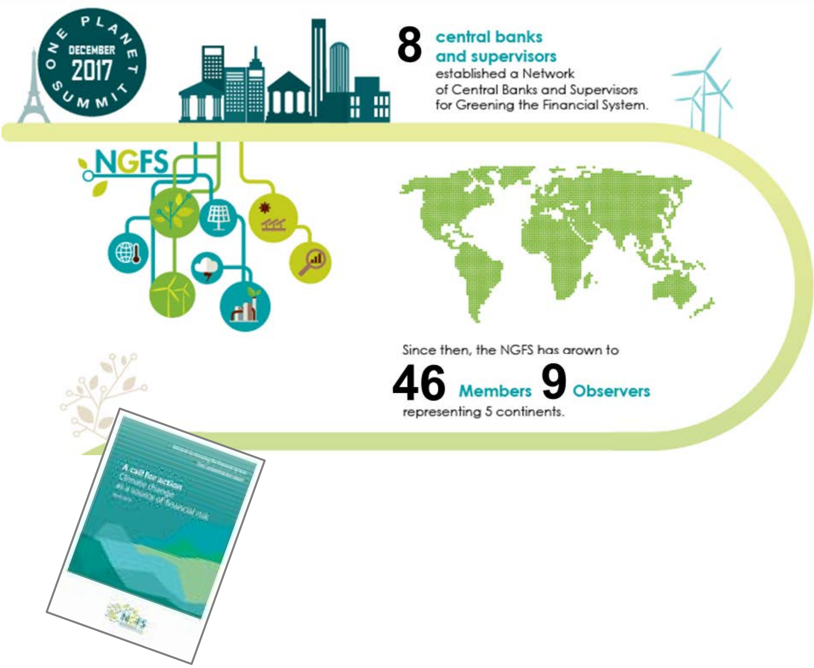
- Climate risks are often not part of such frameworks

**Supervision**

- To strengthen implementation of guidelines, further integration in supervisory practices, for example through onsite inspections, and supervisory scoring systems is key.
- Emerging discussions on how to better integrate climate risks under BASEL III

# Challenge 4: the need for leadership and collaboration


# Key global initiative: Network for Greening the Financial System




## *NGFS Recommendations*

- **01 SUPERVISION** – Integrating climate-related risks into financial stability monitoring and micro-supervision
- **02 PORTFOLIO MAN.** – Integrating sustainability factors into own-portfolio management
- **03 DATA** – Bridging the data gaps
- **04 AWARENESS** – Building awareness and intellectual capacity and encouraging technical assistance and knowledge sharing
- **05 DISCLOSURE** – Achieving robust and internationally consistent climate- and environment-related disclosure.
- **06 TAXONOMY** – Supporting the development of a taxonomy of economic activities.

*Complementary initiatives include:*

Sustainable Banking Network

***Coalition for Ministers of Finance on Climate Action***

Source: NGFS (2019) First Comprehensive Progress Report

# Key global initiative: FSB Task Force for Climate Related Financial Disclosures

## Core Elements of Recommended Climate-Related Financial Disclosures


**Governance**
The organization's governance around climate-related risks and opportunities

**Strategy**
The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

**Risk Management**
The processes used by the organization to identify, assess, and manage climate-related risks

**Metrics and Targets**
The metrics and targets used to assess and manage relevant climate-related risks and opportunities

WORLD BANK GROUP
Finance, Competitiveness & Innovation

Source: FSB TCFD.

# Key policy initiative: EU Action Plan on Sustainable Finance

## EU Action Plan for Sustainable Finance

**One comprehensive strategy | Three main objectives | Ten Actions**

1. **Reorienting capital flows** towards sustainable investment
2. **Mainstreaming Sustainability into risk Management**
3. **Fostering transparency** and **Long-termism**

### Actions

1. Establish EU Sustainable Taxonomy
2. Create Standards and Labels
3. Foster Investment in Sustainable Projects
4. Incorporate Sustainability in Investment Advice
5. Develop Sustainability Benchmarks
6. Integrate ESG in Ratings and Market Research
7. Clarify institutional investors and asset managers duties
8. Incorporate sustainability in prudential requirements
9. Strengthen Sustainability Disclosure & Accounting
10. Foster Sustainable Corporate Governance

Source: [EU Action Plan on Sustainable Finance]

# The World Bank has piloted climate risk and opportunity assessments in the FSAP, and is building capacity to support supervisors integrate climate risks

| Climate Risk and Opportunity Assessments | Technical assistance |
|---|---|
| Identifying **vulnerabilities** | **Environmental Risk Assessments** |
| Assessing **supervisory responses**, for banking, insurance, pensions | **Building tools** |
| Identifying solutions to **deepen markets** for green growth | **Integration in supervision** |

# Questions