SESSION OVERVIEW

Participants
• Senior-level sustainability managers
• On-ground implementing colleagues

Key topics
1. Introduction to climate risks
2. Relevance of climate risks to banks
3. Explanation of TCFD goals and guidance
4. Overview of the latest regulatory and industry developments on climate disclosures
5. Next steps

Learning objectives
• Gain an initial understanding of why climate risks matter for banks
• Develop knowledge of how the financial industry is trying to address climate risks
INTRODUCTION TO CLIMATE RISKS
WHAT IS CHANGING THE CLIMATE?

HUMAN ACTIVITIES HAVE DRIVEN CO2 TO ITS HIGHEST LEVEL IN HUNDREDS OF THOUSANDS OF YEARS

The Keeling curve

Rate of CO2 increase

1. Scripps Institute, 2019
2. NOAA, 2017
HOW WARM HAS THE PLANET GOTTEN?

THE WORLD IS CURRENTLY 1.1 °C WARMER THAN PRE-INDUSTRIAL TIMES, AND WARMING AT A RATE UNPRECEDENTED IN GEOLOGIC HISTORY

Keeling curve overlayed with temperature change

1. NOAA, 2018
2. NASA, 2018

Temperature change from 1884 to 2018
WHAT ARE THE EFFECTS OF CLIMATE CHANGE?
THERE ARE A VARIETY OF ECONOMIC, SOCIAL, AND POLITICAL CONSEQUENCES THAT ARISE FROM PERTURBING THE GLOBAL CLIMATE SYSTEM

Detrimental social and economic impacts of climate change

1. Iberdrola
WHAT MIGHT THE ECONOMIC IMPACTS OF CLIMATE CHANGE BE?
CLIMATE CHANGE WILL RESULT IN SEVERE ECONOMIC LOSSES

Projected impacts of climate change on GDP per capita between now and 2100, relative to a world without climate change.

Projected calculations combined estimates of future temperature change, future change in population and GDP absent climate change and how GDP growth rates respond to temperature.

1. Stanford 2015
PHYSICAL AND TRANSITION RISKS IN THE MENA REGION

CLIMATE SCIENTISTS CONSIDER MENA LIKELY TO EXPERIENCE SIGNIFICANT CLIMATE DISRUPTION,

Physical risks

• Incremental events
  – Water stress and drought
  – Changes in crop productivity
  – Increase in average temperatures

• Extreme events
  – Increase in the duration and severity of heatwaves
  – Increased flooding

Transition risks

• Policy risks
  – Carbon tax- would put pressure on economies reliant on fossil fuels
  – Political stability in the absence of a just transition to a low carbon economy

• Technology risks
  – The rise of affordable renewable technologies in power, transportation, and manufacturing

• Market risks
  – Revaluation of assets based on shifts in demand and potential stranded assets (e.g., fossil fuel reserves)

1. Göll, 2017
RELEVANCE OF CLIMATE RISKS TO BANKS
HOW CLIMATE RISKS IMPACT FINANCIAL INSTITUTIONS (1/3)

CLIMATE RISKS ARE FINANCIAL RISKS

Climate risks and financial impacts

**Physical risks**
- Flooding
- Drought
- Sea level rise
- Heat stress
- Wind

**Transition risks**
- Policy
- Liability
- Technology

**Potential financial impacts**
- Production / operation disruptions (e.g. power, transportation, worker availability)
- Supply chain disruptions
- Physical damage to assets (and raising insurance costs)
- Changes in resource / input prices (e.g. water, energy, food)
- Changes in demand for products / services
HOW CLIMATE RISKS IMPACT FINANCIAL INSTITUTIONS (2/3)
PHYSICAL AND TRANSITION RISKS CAN CREATE A CASCADE OF DESTABILIZING FINANCIAL EFFECTS

Risk transmission in the financial system

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1. IMF
**HOW CLIMATE RISKS IMPACT FINANCIAL INSTITUTIONS (3/3)**

**REGULATORS HAVE RECOGNIZED THAT FINANCIAL INSTITUTIONS FACE CLIMATE DRIVEN CREDIT, MARKET, AND OPERATIONAL RISKS**

Various climate driven financial risks to a firm’s assets

<table>
<thead>
<tr>
<th>Credit</th>
<th>Market</th>
<th>Operational</th>
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<tbody>
<tr>
<td><img src="chart.png" alt="Credit Risk" /></td>
<td><img src="chart.png" alt="Market Risk" /></td>
<td><img src="chart.png" alt="Operational Risk" /></td>
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### Physical
- Increasing flood risk to mortgage portfolios
- Declining agricultural output increases default rates

### Transition
- Tightening energy efficiency standards impact property exposures
- Stranded assets impair loan portfolios
- Disruptive technology leads to auto finance losses

### Market
- Severe weather events lead to re-pricing of sovereign debt

### Operational
- Severe weather events impact business continuity
- Tightening climate-related policy leads to re-pricing of securities and derivatives
- Changing sentiment on climate issues leads to reputational risks

1. Bank of England
3

EXPLANATION OF TCFD GOALS AND GUIDANCE
“The TCFD is helping to bring climate risks and resilience into the heart of financial decision-making, making climate disclosure more comprehensive and comparable and helping investment for a two-degree world go mainstream.”

– Mark Carney, Chair of the Financial Stability Board 2011-2018
THE TASKFORCE FOR CLIMATE RELATED FINANCIAL DISCLOSURES (TCFD)
THE TCFD WAS CREATED IN 2015 TO ENABLE FINANCIAL MARKETS TO BETTER ASSESS AND PRICE CLIMATE RISK

TCFD recommendation pillars

1. FSB
TCFD RECOMMENDED DISCLOSURES

WHILE DISCLOSURES ARE IMPROVING RAPIDLY, QUANTITATIVE SCENARIO ANALYSIS REMAINS A CHALLENGE FOR MANY INSTITUTIONS

11 recommended disclosures

<table>
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<tr>
<th>Governance</th>
<th>Strategy</th>
<th>Risk Management</th>
<th>Metrics &amp; Targets</th>
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<tr>
<td>Disclose the organisation's governance around climate-related risks and</td>
<td>Disclose the actual and potential impacts of climate-related risks and</td>
<td>Disclose how the organisation identifies, assesses, and manages climate-related</td>
<td>Disclose the metrics and targets used to assess and manage relevant climate-</td>
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<tr>
<td>opportunities.</td>
<td>opportunities on the organisation's businesses, strategy, and financial</td>
<td>risks.</td>
<td>related risks and opportunities where such information is material.</td>
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<tr>
<td></td>
<td>planning where such information is material.</td>
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<tr>
<td>a) Describe the board's oversight of climate-related risks and opportunities.</td>
<td>a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.</td>
<td>a) Describe the organisation's processes for identifying and assessing climate-related risks.</td>
<td>a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.</td>
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<tr>
<td>b) Describe management's role in assessing and managing climate-related</td>
<td>b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.</td>
<td>b) Describe the organisation's processes for managing climate-related risks.</td>
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<td>risks and opportunities.</td>
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<tr>
<td>c) Describe the resilience of the organisation's strategy, taking into</td>
<td>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.</td>
<td>c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.</td>
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<td>consideration different climate-related scenarios, including a 2°C or lower scenario.</td>
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1. FSB
OVERVIEW OF THE LATEST REGULATORY AND INDUSTRY DEVELOPMENTS ON CLIMATE DISCLOSURES
TCFD UPDATES
THE TCFD CONTINUES TO BE THE STANDARD FOR CLIMATE RISK DISCLOSURES

2020 progress

• Currently over 1000 supporters with a market capitalization of nearly $12 trillion
• Consultation on forward-looking metrics issued
• 2020 Status report key conclusions
  – Disclosure of climate-related financial information has increased since 2017, but many institutions are still in the early stages of their disclosure journey
  – Additional quantification and standardization of disclosures is needed
  – Asset manager and asset owner reporting to their clients and beneficiaries, respectively, is likely insufficient

2021 plans

• TCFD will explore forward-looking and alignment metrics based on the results of their public consultation
• TCFD will look to establish a set of metrics for disclosure

The latest TCFD status report describes the progress companies are making in implementing the TCFD recommendations

UNEP FI’s Latest TCFD publications
LATEST REGULATORY DEVELOPMENTS ON CLIMATE DISCLOSURES (1/3)
A GROWING NUMBER OF JURISDICTIONS HAVE ANNOUNCED PLANS TO MANDATE CLIMATE-RELATED DISCLOSURES

MENA

• Egypt, the Financial Regulatory Authority (FRA) joined the NGFS in 2020
• The Islamic Development Bank (IsDB) got involved in the joint report on multilateral development bank – climate finance in 2019
• UAE
  – The Dubai Financial Services Authority (DFSA) joined the NGFS in 2019,
  – The Abu Dhabi Global Market (ADGM) announced that its Financial Services Regulatory Authority (FSRA) joined the NGFS in 2019

Europe

• UK PRA proposed climate stress test in next exploratory scenario. UK will also make climate disclosures mandatory
• France Bank of France will define stress test parameters
• Netherlands Conducted climate stress test in 2019
• Norway Norway’s central bank announced need to integrate climate into risk assessment
• Denmark stress test development
• EU ECB Guidelines on climate and environmental risks. New guidance on climate risk disclosures
LATEST REGULATORY DEVELOPMENTS ON CLIMATE DISCLOSURES (2/3)
A GROWING NUMBER OF JURISDICTIONS HAVE ANNOUNCED PLANS TO MANDATE CLIMATE-RELATED DISCLOSURES

Americas

• **United States**
  – Fed recently joined the NGFS and discussed climate risk in semiannual Financial Stability Report
  – “Climate Change Financial Risk Act” to mandate climate stress testing and “Climate Risk Disclosure Act” to mandate climate-related disclosures introduced in last Congress
  – CFTC report: “Managing Climate Risk in the US Financial System”

• **Canada** Bank of Canada announced intent to develop climate stress tests

Asia & Oceania

• **Hong Kong** HK Monetary Authority (HKMA) will begin climate-related stress testing

• **Singapore** Monetary Authority of Singapore (MAS) will begin climate-related stress testing

• **Australia** Australian Prudential Regulatory Authority (APRA) puts climate stress tests on list of priorities for 2020

• **New Zealand** Will require financial institutions disclose their climate risks in alignment with TCFD
The Network for Greening the Financial System ("NGFS") is a peer-learning network of central banks and supervisors (with nearly 100 members and observers, including the U.S. Federal Reserve) focused on the financial system’s risks from and impacts on environmental risks and climate change.

Its work covers five work streams considered important for global harmonization on climate risk. They’ve issued guidance and reports for central banks and supervisors, and also developed reference climate scenarios.

**Work Streams**

1. **Microprudential Supervision**
   - Led by: Monetary Authority of Singapore
   - Mapping current supervisory practices
   - Encouraging climate-related risk disclosures
   - Considering financial risk differential between "green" and "brown" assets

2. **Macrofinancial**
   - Led by: Bank of England
   - Assessing the impact and transmission channels of climate-related risks on the economy and the financial system

3. **Scaling up Green Finance**
   - Led by: Deutsche Bundesbank
   - Aims to understand and monitor the market dynamics and catalysts of green finance

4. **Bridging the Data Gap**
   - Led by: IMF & EBA
   - Identifying list of data items needed by NGFS
   - Determining the availability, sources and limitations for accessing the relevant data
   - Working to bridge data gaps

5. **Research**
   - Led by: Bank of China
   - Updating NGFS research questions
   - Ensuring coordination of research efforts within the NGFS
   - Developing relationship with NGFS research stakeholders
5

NEXT STEPS
QUESTIONS AND DISCUSSION

Poll questions

• Do you see a demand from your clients to have financial institutions disclose their risks?

• Have you felt any regulatory pressure regarding climate risk? How has that pressure been manifested?

Discussion questions (after the session with your team)

• Do you already see certain physical risks impacting your activities? If so, which ones?

• Which sector(s) do you believe will be more likely to experience severe physical risks?

• What is your institution currently doing to measure and manage climate risk?
  – What qualitative approaches have you considered?
  – What quantitative approaches have you considered?

Polling will be provided during the session
UPCOMING SESSION

Next session: Understanding physical and transition risks
Date: 24 March 2021

Participants
• Senior-level sustainability managers
• On-ground implementing colleagues

Agenda
1. Physical risks - extreme events and incremental changes
2. Transition risks - policy, technology, and other drivers
3. Physical and transition risks in the MENA region
4. Introduction to climate scenarios and climate data

Learning objectives
• Develop an understanding of the nature of physical and transition risks affecting the MENA region and overall
• Learn how to identify physical and transition risks within portfolios
THANK YOU FOR YOUR ATTENTION!
IF YOU HAVE ANY QUESTIONS ABOUT TODAY’S CONTENT OR UNEP FI’S TCFD PROGRAMS, PLEASE DO NOT HESITATE TO REACH OUT

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