

Summary of CPMI-IOSCO workshops on climate risks for financial market infrastructures

Introduction

The Bank for International Settlements' Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO) hosted two virtual workshops on climate risks on 26 March and 16 April 2024. The objectives of these workshops were (i) to share a general overview of climate risks and how they may differ for various types of financial market infrastructures (FMI); (ii) to explore what actions FMIs and authorities are taking to address climate risks; (iii) to discuss how the CPMI-IOSCO Principles for Financial Market Infrastructures (PFMI) can be used to identify, monitor and manage climate risks; and (iv) to identify challenges and areas for further work.

The workshops were attended by over 300 participants from different types of FMIs, such as payment systems, central securities depositories/securities settlement systems, central counterparties (CCPs) and trade repositories, as well as relevant trade associations, central banks and securities commissions. The programme included keynote remarks from Inge van Dijk (De Nederlandsche Bank), Frank Elderson (European Central Bank) and Fundi Tshazibana (South African Reserve Bank and the Network for Greening the Financial System (NGFS)) as well as panel discussions with leading experts in the area.¹ This summary provides an overview of the practices and issues discussed by the workshops' participants and therefore does not necessarily reflect the views of individual speakers or that of the CPMI-IOSCO or the industry as a whole.

Keynote remarks

Ms van Dijk illustrated how FMIs are exposed to climate risks and called for sound management of these risks, not least because FMIs form the backbone of the financial system. Noting that the PFMI provide good high-level guidance for sound risk management, she described how De Nederlandsche Bank used the PFMI as a foundation when it developed good practices for the management of climate risks by FMIs.

Ms Tshazibana underlined the important role that FMIs play in the financial system and called for a holistic, system-wide approach to climate risks. She also described the PFMI as a solid basis for managing climate risks for FMIs. Ms Tshazibana highlighted five areas of attention to adequately assess climate risks' impacts and associated solutions: (i) the need to improve analytical capacity, (ii) the need to understand FMIs' interdependencies with other (non-financial) infrastructures, (iii) the need for global solutions, (iv)

¹ Remarks made by participants in the panel discussions are not attributed, as the workshops were held under the Chatham House Rule.

the interaction of climate risks with other risks, and (v) the potential role of fintech and financial innovation in increasing resilience.

Mr Elderson argued that there are transferable lessons to be learned from how other parts of the financial system have dealt with climate risks, underlining that the same applies to risks stemming from nature degradation. He noted that climate risks have been identified as drivers of more traditional risk categories, such as credit risk, liquidity risk and market risk, and stressed the need for sound materiality assessments. Mr Elderson also underlined the need for central banks and supervisors to stay within their mandate when dealing with this theme, noting that ignoring climate risks would not be consistent with sound risk management, supervision and oversight. As a way forward, he offered several options for consideration, such as industry guidance on good risk management practices, increased transparency through disclosure frameworks, and climate stress testing.

Climate risks and FMIs – setting the scene

Climate risks manifest differently depending on the type of FMI. For different types of FMIs, acute physical risks² are more material due to their possible immediate implications for FMIs' operational resilience than other types of climate risks. Undertaking assessments of physical risks and scenarios covering FMIs' business activities, their participants and third-party service providers can help to identify and address FMIs' direct and indirect exposures to these risks.

Business continuity and operational resilience implications of climate risks are the primary concern for FMIs. Acute physical risks could impact FMIs' operational resilience by putting their critical services and supporting resources (eg data centres) at risk. Business continuity plans should include plausible climate risk scenarios to understand, test and, as needed, strengthen FMIs' readiness and adaptive capacity.

Transition risks,³ whether they are direct or indirect (eg through FMIs' participants or financial markets), are not yet perceived as a material source of risk for FMIs. In principle, some FMIs' business models could be affected by activities directly exposed to these risks. CCPs, for instance, could face indirect transition risks through their participants, ie banks as clearing members, who usually hold longer-dated assets compared with those held by FMIs and therefore could be more exposed to a transition risk. However, FMIs would likely be in a position to take measures in the face of such risks.

FMIs' exposure to climate risks may differ between emerging market and developing economies (EMDEs) and advanced economies (AEs). FMIs in EMDEs may be more exposed to acute physical risks to the extent that they could be subject to recurring and more severe climate calamities with reduced resources and adaptive capacity for IT facilities.

² Physical risks can be either acute (immediate effect) or chronic (long-term effect). Acute physical risk mainly takes the form of extreme weather events, which can cause losses to real estate, equipment, infrastructure and other assets. Such events are difficult to foresee, and their frequency and potential impact vary. Chronic risk, on the other hand, manifests over longer horizons, for example, via rising sea levels.

³ Transition risks stem directly or indirectly from the transition to a low-carbon economy. The three main drivers of transition risk are (i) changes in policy and regulation, eg the introduction of carbon certificates, or the reversal of existing policies; (ii) changes in technology, eg the development of clean energy; and (iii) changes in public sentiment or consumer preferences, eg the preference for "green" products and services.

FMI's approaches to addressing climate risks

Workshop participants highlighted the importance of a system-wide approach for FMIs when establishing operational resilience safeguards against climate risks. Such an approach would take into account the entire ecosystem of FMIs, including their participants, third-party service providers and clients of participants. It should also look beyond the FMIs' ecosystem and consider the reliability and resilience of critical utilities providers (eg energy and water providers). The approach should cover risk mitigation measures and adaptation actions that enable FMIs to respond quickly and effectively to climate risks in the short, medium and long term.

FMIs' approaches to address climate risks may differ by FMI type. FMIs may have different risk management frameworks. Some FMIs have incorporated climate risks in their existing frameworks, while others have established a dedicated function that deals with climate risks horizontally across other different activities, especially where the risks are more material. Increasingly, climate risks are becoming a subject of interest at the executive level.

There is a need for a forward-looking data-driven approach for FMIs to enhance their monitoring and management of climate risks. The scenario-based framework developed by the NGFS could serve as a basis for FMIs to identify necessary data, scenarios and modelling approaches.

Authorities' actions to enable FMIs to address climate risks

FMIs generate substantial interconnectedness in the financial ecosystem. They also provide key infrastructure services to financial markets and the economy. Therefore, a major concern for authorities relates to FMIs' policies and actions to ensure their own resilience in the face of acute physical risks. Authorities are also interested in ways to capture the indirect effects of climate risks on FMIs' resilience. While some lessons can be learned from regulatory developments in the banking and insurance sectors, the FMI community would need to develop its own understanding of climate risks and suitable approaches to climate risk management.

Workshop participants highlighted the benefit of further work with improved data to map climate risk transmission channels for FMIs as it could foster robust materiality assessments, such as scenario analyses and stress tests. The outcomes of such assessments could help authorities when engaging with the industry to discuss approaches and the work required to embed climate risks into FMIs' risk management frameworks. In addition, participants underlined the importance of improved disclosures across the financial sector so that FMIs can understand how their participants, third-party service providers and clients of participants are addressing climate risks.

List of keynote speakers, panellists and moderators⁴

- Paolo Angelini, Deputy Governor, Bank of Italy
- Jean Boissinot, Head of Secretariat, Network for Greening the Financial System (NGFS)

⁴ In alphabetical order by last name.

- Biagio Bossone, International Financial Adviser
- Inge van Dijk, Director, Payments, Cash & Market Infrastructure, De Nederlandsche Bank
- Frank Elderson, Member of the Executive Board, European Central Bank
- Teo Floor, CEO, CCP Global
- Emily Hendrix, Senior Director, Risk Policy, Recovery & Resolution, CME Group
- Alexander Hodbod, Oversight Policy Adviser, European Central Bank
- Iris Joosten, Global Project Manager Risk, ABN AMRO Clearing Bank
- Michael Leibrock, Managing Director, Credit and Systemic Risk, DTCC
- Jesse McWaters, Senior Vice President, Global Head of Regulatory Advocacy, Mastercard
- Anthony Miller, Chief Coordinator for UN Sustainable Stock Exchanges Initiative
- Harish Natarajan, Practice Manager, Financial Inclusion and Infrastructure, World Bank
- Marc Reinke, Head of Sustainable Finance Office, De Nederlandsche Bank
- Fundi Tshazibana, Deputy Governor of the South African Reserve Bank, CEO of the Prudential Authority of South Africa and Vice-Chair of the NGFS
- Theodore Waddelow, Head of Sustainability Policy, VISA
- Froukelien Wendt, Independent Member of the CCP Supervisory Committee and Director for Central Counterparties, European Securities and Markets Authority
- Max Wong, Executive Director of Risk Model Validation, SGX