TC NOTES

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HOW HAS SUPERVISION RESPONDED TO CLIMATE CHANGE-RELATED FINANCIAL RISKS?

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Introduction[1]

> *"Climate change is a defining issue of our time and we find ourselves at a defining moment. From shifting weather patterns that threaten food production to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale."*[2]

Climate change-related financial risks refer to the set of potential risks that may result from climate change, which could potentially have an impact on the safety and soundness of individual financial institutions and have broader stability implications for the financial system and the wider economy. These risks are typically classified as physical or transition risks. The impacts of physical risks include the potential economic costs resulting from the increasing severity and frequency of extreme climate change-related events, as well as longer-term progressive shifts in the climate. Transition risks refer to the impacts of the process of adjusting to a low-carbon economy.[3]

Climate change-related financial risks have started to intensify at both the micro and macro levels over the last decade. At the micro level, they already pose a threat to the safety and soundness of banks and insurers. At the macro level, they pose a significant threat to the stability of the financial system. For example, during the last ten years, the global total annual economic costs from natural disasters have frequently exceeded the 30-year average of $140 billion. Additionally, the number of extreme weather events has increased more than 300%.[4] The burden of climate-related claims is expected to increase by more than 100% by 2085 in the insurance sector, due to more frequent climate events and rising sea levels.

This Toronto Centre Note outlines some of the international initiatives focusing on climate change-related financial risks and sustainable financing, and highlights some of the specific areas on which national supervisory authorities should be focusing.

International frameworks on climate risks in financial systems

Climate change-related risk is a relatively new concept for the financial industry and its supervisors, and hence a consensus on its assessment and management is emerging only slowly. In recent years, there has been increasing recognition on the international level that climate change will also affect the financial system.

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[1] This Note was prepared by Mercy Kisanya. It was the winning submission for a Toronto Centre essay competition.
[2] United Nations (2020).
[3] Toronto Centre (2017 and 2019b) describe these risks in more detail.
[4] Feridun and Güngör (2020).

With an increasing awareness of climate change and its impact on economic and financial activities, the importance of measures to identify, assess, and manage risks in financial systems related to climate change has come to the forefront.[5] The concern is shared by policy makers and financial supervisors[6] as they realize the necessity to consider the risks related to the physical and transition impacts of climate change in their societies. Several central banks, including the Bank of England, the Bundesbank, De Nederlandsche Bank, the Bank of France, and the People's Bank of China announced, as part of a new network on greening the financial system (NGFS), that they consider climate-related risks to be a threat to their respective financial systems, and thus intend to strengthen the management of these risks.[7]

This decision to introduce financial regulation to manage climate-related risks can be seen within the new focus on global financial stability, which followed the global financial crisis.[8] Additional financial regulation measures were introduced and the responsibility of institutions involved in financial systems was reorganized globally with the creation of macroprudential authorities. The result of this change was a stronger focus on systemic risks and stronger macroprudential regulations, which led central banks and other regulators to consider a wider range of risks, with potentially systemic consequences, such as climate-related ones, in their scope of activities and mandate. Some specific examples among the suggested measures are disclosure requirements on climate risk exposures, the introduction of climate-related stress testing, and the differentiation of reserve and capital requirements for assets highly vulnerable to climate-related risks.

The recommendations from the Task Force for Climate-related Financial Disclosures (TCFD)

The Financial Stability Board (FSB) announced in December 2015 that it was establishing an industry-led disclosure task force on climate-related financial risks.[9] The objective of the Task Force on Climate-related Financial Disclosures (TCFD) was to develop recommendations for the efficient and effective disclosure of climate-related risks by companies (including financial institutions) in providing information to lenders, insurers, investors, and other stakeholders.

The TCFD consulted on its recommendations for the disclosure of climate-related financial risks a year later, in December 2016, and published the final version of its recommendations in June 2017.[10] The recommendations focus on disclosures relating to governance, strategy, risk management, and metrics and targets information, covering both the physical and the transition risks arising from climate change. The recommendations were intended to promote a smooth transition toward lower-carbon economies by facilitating well-informed investment decision making.

The TCFD also published supplementary guidance for the financial sector with a specific focus on banks, insurance companies, asset managers, and asset owners. The objective was to foster an early assessment of climate-related risks and opportunities, to improve the pricing of climate-related risks, leading to more informed capital allocation decisions, and to facilitate

[5] Batten et al. (2016).
[6] G20 Green Finance Study Group (2016).
[7] NGFS (2018).
[8] Volz (2017).
[9] Financial Stability Board (2015).
[10] Financial Stability Board (2017).

assessments of the materiality of any risks posed by climate change to the financial sector, and the channels through which this is most likely to be transmitted.[11]

The TCFD published status reports in 2018, 2019, and 2020 that summarized the progress made in implementing its recommendations and included some examples of good practice.[12]

Network of Central Banks and Supervisors for Greening the Financial System (NGFS)

The Network of Central Banks and Supervisors for Greening the Financial System (NGFS) was established in December 2017 to strengthen the global response required to meet the goals of the Paris Agreement, to enhance the role of the financial system to manage climate-related financial risks, and to mobilize capital for green and low-carbon investments in the broader context of environmentally sustainable development.[13]

The main focus of the NGFS has been on the macroeconomic and financial stability impacts of climate change; helping prudential supervisors to integrate climate-related and environmental risks into prudential supervision;[14] and climate scenario analysis.

The Sustainable Banking Network (SBN)

The Sustainable Banking Network (SBN) was launched in September 2012.[15] It is a network of financial regulators and banking associations from emerging markets committed to advancing sustainable finance in line with international good practice. It has developed guidelines and related initiatives to support the financial sector in adopting environmental and social risk management as well as green lending.[16]

The current work of the SBN is centred around two working groups: the Measurement Working Group, which conducts research and develops a commonly agreed upon framework for benchmarking member experiences in adopting national sustainable finance frameworks; and the Green Bond Working Group, which supports members in their efforts to develop green bond markets and facilitate an increased flow of international and domestic investment to achieve national sustainable development goals.

The International Capital Market Association's Green Bond Principles

The International Capital Market Association's Green Bond Principles (GBP) are the most prominent international guidelines on green bonds.[17] Green bonds enable capital-raising and

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[11] This supplementary guidance is discussed in Toronto Centre (2017).
[12] Financial Stability Board (2018, 2019 and 2020).
[13] NGFS (2017).
[14] NGFS (2020).
[15] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/sustainable-finance/sbn
[16] Other similar international banking sector initiatives are described in Toronto Centre (2019b).
[17] International Capital Market Association (2018).

investment for new and existing projects with environmental benefits.[18] The GBP, updated as of June 2018, are voluntary process guidelines that recommend transparency and disclosure, and promote integrity in the development of the green bond market by clarifying the approach for issuance of a green bond.

The GBP are anchored on transparency and full disclosure to all stakeholders to promote integrity in the issuance of green bonds. They provide issuers guidance on the key components involved in launching a credible green bond; they aid investors by ensuring availability of information necessary to evaluate the environmental impact of their green bond investments; and they assist underwriters by moving the market towards standard disclosures to facilitate transactions.

Supervisory responses to climate change-related financial risks

Supervisors are increasingly integrating climate change-related risks into their activities.

Mandates and objectives

A growing number of supervisors now consider climate factors to be relevant to the core of their statutory obligations. The impetus for this action varies across jurisdictions and may include legislation, requests from government, the reconfiguration of institutional objectives, or independent action.

For example, De Nederlandsche Bank (DNB) has stated that "supervisory authorities and policymakers have an important role in identifying and mitigating climate-related risks. A timely, clear, and gradual transition is needed to limit transition risks to the financial sector…DNB intends to embed climate-related risks more firmly into the supervisory approach and will continue to develop and implement climate stress tests. Last but not least, DNB will continue to contribute to international exchange of knowledge about climate-related risks between supervisory authorities."[19]

Risk management

Supervisors are paying increasing attention to the climate change-related financial risks facing financial institutions. For example, NGFS (2020) recommends that supervisors should:

- determine how climate-related and environmental risks transmit to the economies and financial sectors in their jurisdictions and identify how these risks are likely to be material for the supervised entities;
- identify the exposures of supervised entities that are vulnerable to climate-related and environmental risks and assess the potential losses should these risks materialize; and
- ensure adequate management of climate-related and environmental risks by financial institutions and take mitigating action where appropriate.

[18] See also Toronto Centre (2019a).
[19] De Nederlandsche Bank (2019).

Information and data gathering

Sector-level information requests and data gathering activities present an important channel for supervisors to deepen their understanding of how climate factors may affect firms. Such efforts may include the provision or endorsement of voluntary disclosure efforts, surveys, or the implementation of new mandatory disclosure requirements. In Brazil, SUSEP has launched a survey process with regulated entities to obtain data and information about market practice on sustainability issues, with a focus on climate issues.

Engagement strategies and examination tools

An important mechanism for supervisors to increase their understanding of how climate risks may affect the financial system is through the integration of climate-related issues in routine supervisory engagement and examination. In the US, the NAIC has integrated climate change factors into national-level supervisory standards through revisions to the Financial Condition Examiners Handbook.[20]

Climate stress-testing[21]

Many supervisors are performing stress tests to assess the resilience of the financial sector to possible adverse developments. The inclusion of climate-related considerations in stress tests is still at an early stage: only 15% of respondents to Mazars' survey currently include climate-related considerations in their routine stress tests of financial institutions. But this figure is set to soar, as nearly four-fifths (79%) say they intend to do so in the future.[22]

Speaking at the International Climate Risk Conference for Supervisors in April 2018, Bank of England Governor Mark Carney remarked, "on climate, remember, past is not prologue. In the depressing spirit of Bayesian updating that the current climate change trajectory demands, when considering scenarios for 2019, that we include weather-related events that are more severe and clustered."[23]

In the United Kingdom, prudential regulators have incorporated climate change scenarios into stress tests of insurance firms that cover both physical and transition risks.[24]

Alignment with climate-related public policy objectives

Governments around the world are implementing a diverse array of measures to raise private capital for long-term investments necessary to achieve the sustainability transition. While such action is usually the remit of other authorities, supervisors can play an important role in gathering information to help evaluate these efforts, including with respect to current and projected financial flows to low-carbon investments.

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[20] https://www.ceres.org/resources/reports/assets-or-liabilities-fossil-fuel-investments-leading-us-insurers
[21] See also Toronto Centre (2020) for a more detailed discussion of climate stress testing.
[22] Mazars (2020).
[23] Carney (2018).
[24] Prudential Regulation Authority (2019a, 2019b, and Annex 2 of 2020).

The French government introduced Article 173 in the Energy Transition Law of 2015, a mandatory requirement on carbon disclosure for all listed companies and institutional investors with the goal to improve the transparency regarding the exposure of firms to climate transition risks.

In 2009, the African Development Bank (AFDB) developed its strategy of Climate Risk Management and Adaptation (CRMA).[25] This strategy calls for increased support for capacity building of African countries to tackle climate change risks. It also aims to ensure that all investments financed by the Bank are climate-proof, meaning that they are designed, installed, implemented, and managed to reduce the adverse effects of climate change to a minimal level, with the most cost-effective ratio as possible.

The green finance instrument was made possible in Kenya following publication of a Policy Guidance Note (PGN) on the issuance of green bonds and the approval of amendments to the Nairobi Security Exchange (NSE) Listing Rules by the Capital Markets Authority.[26] The PGN provides the procedures for the issuance and listing of green bonds at NSE, the appointment of an independent verifier, disclosure, and continuous reporting obligations. Furthermore, prior to the issuance of a green bond, the issuer must disclose the process for managing the net proceeds from the green bond to investors.[27]

In Nigeria, the Securities and Exchange Commission and Nigerian Stock Exchange have issued regulations on the issuance of green bonds.[28] These regulations are modelled after the Green Bond Principles, an international set of guidelines that promote the integrity of the green bonds market (see above).

Collaboration and cooperation

Collaboration has already started between regulators and the private sector on climate change issues, such as understanding the financing gaps associated with climate goals through various initiatives. Taking collective responsibility for creating the new foundations of a sustainable financial industry will contribute to building healthier economies and a fairer world. In the Netherlands, DNB established a Platform on Sustainable Finance in 2016 with the aim to promote and encourage a dialogue on sustainable finance.

Engagement with other public authorities

The Network for Greening the Financial System aims to exchange experiences and best practices and contribute to better management of environmental and climate risks in the financial sector, thus encouraging its contribution to the transition towards a sustainable economy.

[25] African Development Bank (2019).
[26] International Capital Markets Association (2019).
[27] The Kenyan Capital Markets Authority approved the issuance of the first green bond in Kenya in August 2019. See https://www.standardmedia.co.ke/business/article/2001338262/cma-approves- kenya-s-first-green-bond#
[28] Securities and Exchange Commission of Nigeria (2018).

Conclusion

Climate change is rapidly emerging as a threat to the stability of financial systems, affecting the health of financial institutions (banks, insurers, investors) through the performance of their lending and insuring activities, and through the valuation of the financial assets in their investment portfolios. The relationship between climate-related risks and financial stability calls financial supervisors to action, widening their mandate to include the assessment and management of the impacts of a changing climate on financial assets and capital markets.

There is an increasing consensus across the financial sector that the potential systemic impacts of climate change require a similarly systemic global response, exemplified by work at the international level by the G20 and the FSB. Many supervisors have recognized the importance of their role in addressing climate risks, in line with their mandates to ensure the safety and soundness of individual financial institutions and of the financial system. Moving forward, supervisors should seek to increase their understanding of climate change-related risks, and to develop their supervisory capabilities to be able to assess the risk management capabilities of financial institutions, the quality of disclosures, and financial stability.

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