

WORKSHOP PROCEEDINGS

INTERNATIONAL SENIOR MANAGEMENT WORKSHOP ON CLIMATE AND BIODIVERSITY LOSS RISKS

On 3 – 5 October 2023 Toronto Centre and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) convened a virtual meeting of senior supervisors and central bankers from developing and developed countries, and representatives of international organisations.

The workshop explored how international standard setters and national authorities are responding to the impact of climate and biodiversity-related risks on the financial system.

The main focus¹ of the workshop was on:

- What are the implications of climate and biodiversity-related risks for supervisory authorities (prudential and conduct) and central banks?
- How should these authorities respond to these risks? What concrete steps can they take?
- What does this imply for regulation, supervision, and macro-prudential analysis?
- What capacity-building is required in this area, and how might it be achieved?
- What future work is needed?

Evolving landscape

Participants noted that climate-related risks were worsening. Some previously identified risks had already crystallised, and were becoming the norm, while some alarming risks were moving up from the tails towards the centre of the distribution of expected outcomes. Tipping points (such as melting ice caps and changes in global air circulation systems) were being reached and crossed. Chronic impacts were here to stay, rather than being acute but temporary. There was also some discussion of increasing migration within and between countries as a result of climate change.

Meanwhile, the focus on biodiversity-related risks is increasing. climate and biodiversity-related risks are closely interrelated. However, they are also separate from each other – for example, water shortages in some countries are becoming increasingly pronounced, and this may not be alleviated even if climate change is reversed. In some cases measures to alleviate climate change can increase the risks of biodiversity loss.

There is a need to identify clearly the risks here - to countries, to their financial sectors, and to specific financial institutions. Some participants also noted that there are opportunities as well as risks, and that there is a need to work on adaptation, not just prevention.

Leadership and organizational change

Many participants commented on the need for supervisory authorities and central banks to provide Board-level leadership, sponsorship, and support for staff. For supervisory authorities in particular, it was seen as important to provide clear direction. Supervisors are taking micro-level decisions every day, so they need guidance on changing perceptions of risk, the way they assess it, and how they interact with supervised firms.

¹ The “Issues for discussion” note prepared for the workshop is available at [Discussion Note.pdf](#)

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In part, this leadership has been reflected in organizational change and development. Participants referred to their authorities developing:

- climate-related and "sustainability" strategies and risk appetites;
- frameworks and phased road maps;
- central units such as climate change centres or new divisions or departments;
- internal committees, working groups, and task forces;
- increased resources devoted to climate and biodiversity-related risks; and
- a collaborative approach with other authorities (for example, between banking and insurance supervisors being under the management of different authorities).

Similarly, it was noted that the IMF's 2021 climate strategy had placed climate change firmly into its activities in surveillance (Article IVs and some FSAPs), lending (the Resilience and Sustainability Trust), and capacity development (helping authorities strengthen their capacity).

Regulatory policy

Most participants referred to the development by international standard setters and by national authorities of guidelines for risk management (and in some cases also governance) to establish expectations of what financial institutions should be doing. The Basel Committee [Principles for the effective management and supervision of climate-related financial risks](#) and [Frequently asked questions on climate-related financial risks](#), and the IAIS [Consultation on climate risk supervisory guidance](#), were mentioned as useful source material for national authorities.

Some participants also referred to the development of taxonomies to categorize risk exposures to different industries or sectors; disclosure obligations; and social and environmental policies for financial institutions to act "responsibly" and to follow a "sustainable" approach.

Supervision

Some participants had used initial discussions with financial institutions to learn and to identify good practice, some of which was then incorporated within risk management guidelines. There was also scope to highlight good practice by publishing the broad findings from these discussions.

Once guidelines are in place to provide clear supervisory expectations, supervisors can assess financial institutions against these guidelines. This includes reviewing and assessing:

- "transition plans" setting out how a financial institution is positioning itself in the transition to a climate-resilient and sustainable economy;
- where applicable, a financial institution's social and environmental policies; and
- how a financial institution is incorporating climate and biodiversity-related events and risks into its business models, strategy and risk appetite; governance; risk management; disclosures; and capital and solvency adequacy assessments (ICAAPs for banks, ORSAs for insurers).

This assessment could be firm-specific or thematic (for example, reviewing Board-level approaches to climate and biodiversity risks in financial institutions). The assessment could

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lead to supervisory interventions to improve a financial institution's governance or risk management.

Various techniques were used to help and train supervisors to have discussions about climate and biodiversity-related risks with the boards and senior management of financial institutions. This included the formulation of lists of questions that could be asked about governance and risk management.

Discussions with financial institutions also provided input into supervisory assessments of the possible impact of climate and biodiversity-related risks on financial institutions. Some participants identified geographic risk concentrations as a major concern.

Most participants said that they were translating climate and biodiversity-related risks into existing risk categories, such as credit, market, insurance, and operational risks.

The NGFS [Guide for supervisors on integrating climate-related and environmental risks into prudential supervision](#) and the Toronto Centre [Climate and biodiversity risks toolkit for financial supervisors](#) were mentioned as useful resources for supervisors in developing their supervisory approach.

In most cases supervisors reported that their work to date has focused mostly on the identification and mitigation of risks to supervised firms. In one or two cases supervisors had actively sought to encourage supervised firms to be environmentally responsible. It had been recognized that this created issues, such as potential conflicts with other supervisory objectives, which required careful management.

Financial stability

Central bank participants described their work developing climate and biodiversity-related scenarios and top-down stress tests (often in collaboration with supervisory authorities). They also described modelling physical and transition impacts that might arise from drought, rising sea levels, water shortages, land degradation, and deforestation, for example. The NGFS is developing nature-based scenarios.

This work is being reflected in the financial stability and other reports issued by many central banks. These reports can usefully feed into micro-level supervision, but it was less clear whether any macro-prudential type tools were available to central banks to mitigate the risks to financial stability more directly.

There was some discussion of introducing a macro-prudential buffer in response to increasing climate and biodiversity-related risks. This would provide a capital cushion against unexpected losses, along the lines of the counter-cyclical capital buffer imposed in response to rapid credit growth. But most participants identified the failure to price externalities as the main problem, so the most appropriate instruments are those available to governments, such as some form of carbon taxes.

Some participants suggested that a leading "canary in the coal mine" indicator of financial instability might be the withdrawal of insurance (and reinsurance) from some locations, with a resulting impact on credit risks (and also on financial inclusion).

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Participants also noted the importance of integrating macro and micro approaches, and of wider collaboration with ministries of finance, deposit insurance agencies, and insurance and pension fund supervisors. There was scope here for a two-way sharing of data and other information. There is further work to be done on translating macro-level analyses into materials that can be used by supervisors in their day-to-day supervision of financial institutions. For example, top-down scenarios and stress testing could usefully inform micro level stress testing by both supervisors and financial institutions, but more work is needed on the formulation of micro-level stress tests, their implementation and the interpretation of the results.

Some participants noted that stress-testing was difficult to devise for climate-related risks, and even more so for biodiversity-related risks. There is a need to think differently about these risks and their impacts, which may not be reflected in GDP and other macro-economic variables.

Data

Some participants observed that a credit bureau in their country was a good source of data on some climate and biodiversity-related risks, in particular where it provided geolocation data. Financial institutions could also provide a lot of data, but usually not on a consistent basis, making it more difficult for supervisors to analyze and compare the data. Participants saw a need for taxonomies as a basis for organizing data. They also suggested common templates for regulatory reporting by financial institutions, which would require more clarity on what data supervisors actually need. However, there was general agreement with the warning by one that the lack of an “ideal” data set should not be used as an excuse for delaying supervisory actions.

There was also some discussion of the new ISSB disclosure standards. These call for financial institutions to disclose the “emissions footprint” of their lending and investment activities, but it was unclear whether these would be calculated in a consistent manner, not least because disclosures from corporates (the counterparties to lending and investment by financial institutions) would also need to be consistent.

Capacity-building

Participants shared their experiences on capacity-building with respect to climate and biodiversity-related risks. Useful initiatives here included:

- building awareness through webinars with outside speakers (climate scientists, experts from other authorities, etc) and monthly newsletters to staff;
- developing a training program to cover both introductory modules (a basic understanding of climate and biodiversity-related risks) and more specialist modules, for example to cover risk assessment, scenarios, stress testing, taxonomies, and data and where to find it;
- engaging in NGFS working groups;
- attending Toronto Centre programs;
- securing assistance from authorities in other countries (the European Central Bank and the Banque de France were mentioned), and from the IMF and the World Bank. The IMF was mentioned as a source of webinars and training courses, and of general and specialist assistance (for example, the modelling of climate change), some of it on a continuous engagement basis;

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- “on the job” training, for example through discussions with financial institutions on their views of the risks and how they are responding to them;
- recruitment of climate specialists, secondments and job rotation;
- sharing knowledge and experiences across sectors (for example between banking and insurance supervisors);
- discussing the subject in financial stability committees, usually including the central bank, supervisory authority, and Ministry of Finance; and
- collaborating with other government departments, and other sources of expertise (for example scientists and universities).

Participants noted that a lot of published material is also available, including Toronto Centre Notes, NGFS publications, and other NGFS-produced resources (for example, on scenarios and their potential impacts).

The NGFS has developed:

- 1) The NGFS Sustainable Training Reference (“STaR”) Guide to provide a curriculum on what the training program of a central bank or supervisor authority could cover on climate-related and environmental risk issues, depending on the current level of expertise and knowledge within the institution. The Guide was published late October on the Climate Training Alliance (CTA) portal, and is available to NGFS member institutions and CTA partners. This version of the Guide has also been shared with key training providers and developers for suggestions and review.
- 2) The NGFS SKILL (Sustainability Knowledge Information and Learning Library) portal listing upcoming live training and self-learning materials. Some of these may not be open to other authorities, but the contacts may be able to help colleagues in other authorities thinking of developing similar training through a “matchmaking” role.

Looking ahead

Participants noted that although the mandates of some supervisory authorities were narrowly confined to risk management and disclosure, others had broader mandates. These included explicit or implicit references to environmental and social issues, sustainable finance and blended finance, and financial inclusion.

Some supervisory authorities were therefore working on:

- developing sustainable finance and blended finance;
- developing markets for the issuance of “green” bonds;
- using existing approaches to facilitate and encourage “green” lending opportunities (for example, higher single borrower limits for project finance, and mandatory credit allocation for lending to some sectors, such as agriculture); and
- requiring financial institutions to have “responsible” lending and investing plans.

It was recognized that such initiatives might involve supervisory authorities in conflicts of objectives that need to be fully understood and managed – for example in adjustments to supervisory risk tolerances.

Participants were generally not keen on adjusting risk weights (lower risk weights for “green” lending and higher risk weights for carbon-incentive lending) if these did not reflect the risks inherent in such lending. Instead, there was a preference to apply firm-specific “Pillar 2”-type additional capital requirements on financial institutions (banks, insurers and others) with

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concentrated climate-related risks, or on those unable to demonstrate effective governance or management of climate and biodiversity-related risks. This would provide a buffer against unexpected losses.

Challenges

Participants agreed that further work is required in all the areas discussed. These include leadership; international and domestic standard-setting for financial institutions; supervision and the translation of research into climate and biodiversity-related risks and their impacts into day-to-day supervision and supervisory judgments and actions; the links between macro and micro perspectives; data; capacity-building; and a framework for considering biodiversity-related risks.