WS2 - Macrofinancial workstream

Mandate and workplan from April 2020 to April 2022

Chair of the workstream: Sarah Breeden (Bank of England)
Members of the Secretariat: Thomas Allen and Antoine Boirard (Banque de France)

A. Objective

The objective of workstream 2 is to size the impact of climate change on the economy and financial stability.

To achieve this objective, workstream 2 has developed a multi-year programme to:

- Develop reference climate scenarios for central banks and supervisors;
- Provide guidance to central banks and supervisors on integrating climate risk analysis into macroeconomic and financial stability surveillance; and
- Size the macro-financial impact of these risks (both in the central case and in the event of tail scenarios).

B. Relevance to the work of the NGFS

Workstream 2 contributes to the better estimation and integration of climate-related risks into financial stability monitoring (recommendation 1 of the NGFS April 2019 comprehensive report). The release of a consistent and comparable set of data-driven scenarios is an important step in this regard. By undertaking a literature review and providing practical guidance for scenario analysis, workstream 2 is also actively building intellectual capacity and awareness and encouraging both technical assistance and knowledge sharing (recommendation 4 of the NGFS April 2019 comprehensive report).

C. Tasks

1. Develop reference climate scenarios

Scenario analysis is an analytical framework that is used to size the impact of different climate policy scenarios on the macroeconomy and financial system. While many scenarios exist, they are not usually suitable for the purposes of central banks and supervisors. They may not explore the outcomes, which would create the biggest risks, have sufficient depth across relevant sectors and geographies, or be

produced with the necessary credibility and independence. These factors drive an ongoing need for the NGFS to produce its own scenarios.

The first phase of this work, concluded in June 2020[1], focused on delivering an aligned set of physical and transition variables for a set of scenarios based on the NGFS scenario framework (box 2 in the NGFS First Comprehensive Report)[2] and making this data available to end users. In the next phase, the NGFS will continue to work with a consortium of academic partners to refine and expand the scope of the scenarios. Areas of focus will include the regional coverage and sectoral granularity of the scenarios, modelling acute climate impacts and expanding the set of macroeconomic outputs. This will help to close the gap between the scientific modelling community and the traditional models used by central banks.

2. Provide guidance on integrating climate risk analysis into macro-financial assessment

Methods for conducting climate risk analysis are continuing to evolve as different central banks and supervisors pilot different approaches. Workstream 2 can play an integral role in synthesizing examples of best practice for the design, calibration and execution of these exercises. This will further practically support central banks and supervisors in sizing the risks.

As a follow-up of the first edition of the Scenario Guide (published in June 2020)[3], further insights will be drawn from the practical experiences of central banks and supervisors in conducting scenario analysis. NGFS members are planning a number of such exercises for 2020-2021.

3. Size the macro-financial impact of these risks

In the Technical Report (published in July 2019)[4], the NGFS identified a number of gaps in the evidence base and issues with some of the underlying models and methodologies. This led to the identification of a range of research priorities. Since publication, a large amount of additional academic research has been done to build the theoretical channels and empirical evidence in the literature. An update to the research priorities was published as part of the NGFS note on Research Priorities (published in June 2020)[5].

In the next phase of work, workstream 2 will undertake a more focused assessment of the most material physical and transition risks that are likely to feed through to the real economy and financial system and consider how to best encourage further academic research in these areas.

[1] https://www.ngfs.net/sites/default/files/medias/documents/ngfs_climate_scenarios_final.pdf
[2] https://www.ngfs.net/sites/default/files/medias/documents/ngfs_first_comprehensive_report_-_17042019_0.pdf
[3] https://www.ngfs.net/sites/default/files/medias/documents/ngfs_guide_scenario_analysis_final.pdf
[4] https://www.ngfs.net/sites/default/files/medias/documents/ngfs-report-technical-supplement_final_v2.pdf
[5] https://www.ngfs.net/sites/default/files/medias/documents/ngfs_research_priorities_final.pdf