



Paris, 24th October 2024

NGFS publishes a climate macroeconomic modelling handbook

Today, the NGFS released the [“Climate macroeconomic modelling handbook”](#) which provides practical guidance for central banks on incorporating the impacts of climate change on monetary policy into their macromodelling toolkit. As climate change and the transition to net zero increasingly affect macroeconomic outcomes, not only over the mid- to long-term, but also over the short-term, these considerations become relevant for monetary policymakers.

The handbook aims to accompany central banks at various stages of developing their climate macroeconomic modelling. Central banks have identified a range of challenges in modelling the impacts from climate change and the transition. Some can be addressed by adapting existing toolkits, but novel approaches may also be required.

To support central banks with this work, the handbook draws on an in-depth survey of academic and policy work to identify diverse climate modelling approaches, with a focus on structural macroeconomic modelling. While there is no modelling “silver bullet”, the handbook assesses the relative strengths and use cases of different approaches to better account for physical and transition impacts. This can then enable monetary policymakers to develop a toolkit comprising a suite of different models. The handbook also assesses how different aspects of climate uncertainty can be incorporated into the analysis.

Sabine Mauderer, Chair of the NGFS and First Deputy Governor of the Deutsche Bundesbank:

“Central banks are to account for the impacts of climate change in their policy. Hence, they must find a way to integrate those impacts into their most trusted instruments: their models. This handbook offers insights on integrating climate change impacts into the macroeconomic models commonly used by our community. Climate change is increasingly affecting the economy, and this handbook equips policymakers with tools to manage the complexity they face.”

James Talbot, Chair of the NGFS Workstream on Monetary Policy and Executive Director of the International Directorate at the Bank of England:

“Modelling the impacts of climate change and the transition on the macroeconomy is difficult, and there is no ‘silver bullet’ or a single model that can do it all. This handbook provides practical guidance for central banks that will help them to navigate the range of modelling challenges and identify the most suitable modelling approaches for their needs. It illustrates how central banks can get started by building on their existing toolkits and how these can then be extended over time.”

This publication is the last in a series of reports released by the NGFS over the past months, focusing on the macroeconomics of climate change and monetary policy. These reports aim to support central banks in assessing and understanding the macroeconomic effects of climate change and the transition to net zero, as well as the potential implications for the conduct of monetary policy. The first report in this series, published in August, focused on the [acute physical impacts from climate change and](#)

[monetary policy](#). The second report, published earlier this week, examined the [impacts of the green transition on the macroeconomy](#).

About the NGFS

The NGFS, launched at the Paris One Planet Summit on 12th December 2017, is a group of central banks and supervisors, which on a voluntary basis are willing to share best practices and contribute to the development of environment and climate risk management in the financial sector, and to mobilise mainstream finance to support the transition toward a sustainable economy. The NGFS brings together 141 central banks and supervisors and 21 observers. The NGFS is chaired by Ms Sabine Mauderer, First Deputy Governor of the Deutsche Bundesbank. The Secretariat, headed by Mr Yann Marin, is provided by the Banque de France.

For more details, visit the [NGFS website](#), [LinkedIn](#) and [X account](#) or contact the NGFS Secretariat at Banque de France sec.ngfs@banque-france.fr

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