The Coalition of Finance Ministers for Climate Action

Transition scenarios for Ministries of Finance: a review of relevant approaches and a roadmap for upgrading analytical capability

Coalition for Capacity on Climate Action (C3A)

Bastien Bedossa, Adam Poupard, and Matthieu Bordenave

A contribution to the 'Compendium of Practice from a Global Community of Ministries of Finance and Leading Organizations: Economic analysis and modeling tools to assist Ministries of Finance in driving green and resilient transitions'

Topic: Addressing the climate policy questions facing Ministries of Finance: the economic and fiscal impacts the green transition

June 2025

Access the full Compendium at www.greenandresilienteconomics.org

This contribution was prepared at the request of, and with guidance from, the Ministry of Finance of Denmark as Lead of the Coalition's Helsinki Principle 4 initiative 'Economic Analysis for Green and Resilient Transitions' and its Steering Group, with input from its Technical Advisory Group. The views, findings, interpretations, and conclusions expressed are those of the authors. While many Coalition members and partners may support the general thrust of the arguments, findings, and recommendations made in this contribution, it does not necessarily reflect the views of the Coalition, its members, or the affiliations of the authors, nor does it represent an endorsement of any of the views expressed herein by any individual member of the Coalition.

A recent technical note by the World Bank C3A program explores a wide range of methodological approaches Ministries of Finance could consider for building scenarios to consider the risks and opportunities relating to the climate and nature transition as well to develop appropriate policies. The note takes stock of existing and emerging scenario exercises that have been developed globally for integrating climate and nature issues into decision-making.

MoFs are involved in critical decision-making processes. Primarily, they play a central role in economic and financial decisions, navigating various constraints while making decisions in an uncertain context. Additionally, they contribute to a wide range of policy decisions undertaken by other Ministries or heads of Government. These decisions can range from short-term actions, such as emergency responses to natural disasters, to long-term strategies, such as public investment planning and annual budget allocations. Both types of decisions require structured processes to assess risks and long-term impacts, as these decisions significantly influence the country's economic trajectory.

Whether dealing with short- or long-term decisions, MoFs need policy support instruments able to transform complex initial situations into a manageable range of policy options.

To contribute to a coherent climate agenda at global and national levels, global scenarios developed by IPCC experts, the NGFS, or the IEA have helped create a general framework for assessing the impacts of climate change on a set of variables and aggregates relevant to decision-makers at regional and national levels. This framework can be used to carry out risk and opportunities assessments and to set national policy targets aligned with global agendas. The Global Biodiversity Framework is also developing methodologies to create appropriate targets and metrics for nature and biodiversity preservation to support the establishment of scenario methodologies in this area.

Scenario exercises have emerged from national and regional initiatives aimed at building political consensus and commitment to climate and nature transition pathways from a large number of stakeholders. These scenario exercises primarily inform public policies, both sectoral and cross-cutting, and contribute to national strategies for global agendas, such as NDCs, Long-Term Low-Emission Development Strategies and the forthcoming National Biodiversity Strategies and Action Plans (NBSAPs).

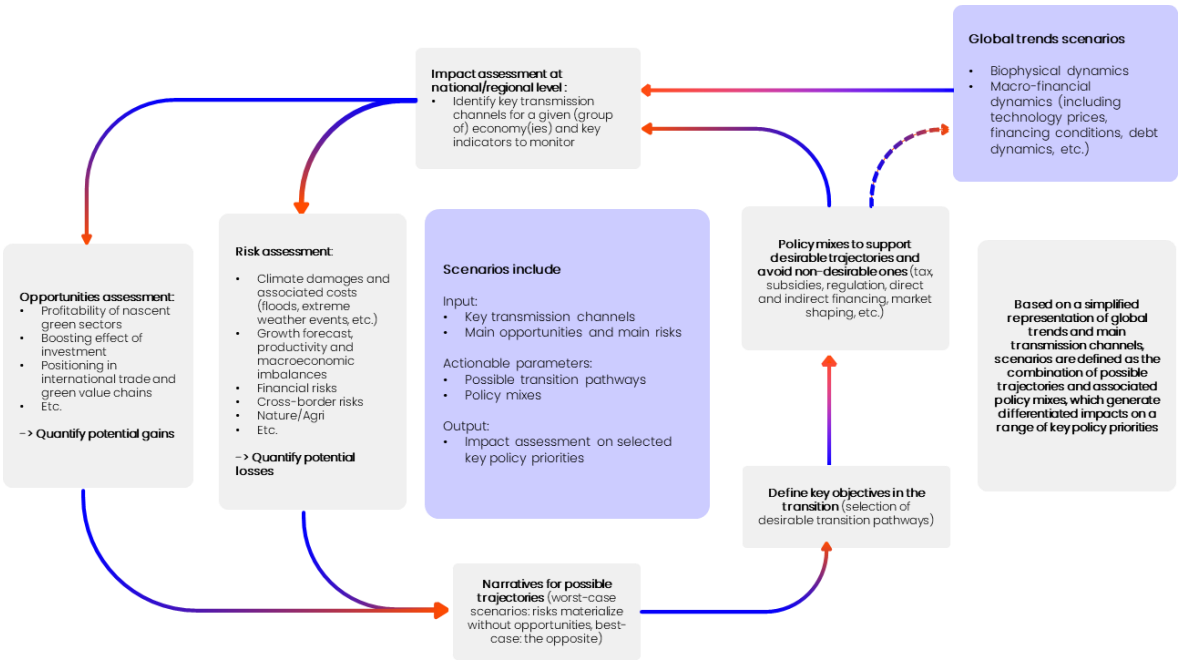
Scenarios can serve various purposes[1] throughout the policy cycle:[2] they can be useful for assessing the impacts of biophysical transformations on the main economic and financial aggregates; they can also be used as risk and opportunity assessment tools to inform decision-makers and set a policy agenda for the transition. Scenarios can also be useful for highlighting and refining priorities, and for designing policy options. By assessing the interlinkages between global trends, vulnerabilities to climate change at national level, and domestic policy priorities, scenarios can help assess opportunities and risks in the transition, establish narratives for various transition pathways, and anticipate the short- and long-term impacts of a wide range of climate policies. Beyond their own features, scenario methodologies can also open up a space for rethinking policies in the context of systemic change.

The technical note concludes that existing scenario approaches have not been designed to specifically support the decision-making process in MoFs and makes proposals on how existing or to-be-created scenarios could be developed and used specifically by MoFs for policy appraisals in the transition process.

1 Scenario-building literature encountered multiple strategic and policy applications, starting in the 1960s with the pioneering work of Kahn and Wiener introducing the concept in a military context, and making it a decisive tool for geopolitics. The Meadows Report (1972) applied it for the first time to environmental narratives, coupled with modeling simulations, creating an essential piece of literature on planetary limits. Schwartz and Ringland, for example, made clear that scenario-planning was instrumental in creating narratives about the future, exploring strategically plausible paths, while Chermack and Schoemacker identified its critical role in international negotiations. Amer (2013) underlines how it allows adaptative policies to be built that show resilience in the face of shocks.

2 For an example representation of the policy cycle with potential use of scenarios as a policy support instrument, see IPBES (2016) Scenario and Models of Biodiversity and ecosystem services, at https://www.ipbes.net/assessment-reports/scenarios.

Figure 1. Building scenarios for MoFs: an iterative and multiscale process



Source: C3A