

DANMARKS NATIONALBANK

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Climate change requires an economic transition in several areas

Macroeconomic and financial policy tools for climate change mitigation

Climate change is one of the greatest challenges of our time, requiring a large-scale economic transition in many areas. An inadequate transition will have extensive consequences, and, moreover, the transition per se will impact economic development. Fiscal tools are the most relevant for enabling this transition. But climate risks associated with private investments may have implications for financial stability, raising questions about the roles of financial regulation and monetary instruments in climate change mitigation. It will be necessary,

including for central banks, to address these questions.

These are the conclusions of a review of the rapidly growing number of scientific articles and books on this subject, presented in a working paper by Signe Krogstrup from Danmarks Nationalbank and William Oman from the International Monetary Fund, IMF. The paper aims to provide an overview of the literature on the consequences, opportunities and limitations of a broad range of fiscal, financial and

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| | POLICY | INSTRUMENTS |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FISCAL POLICY TOOLS | Carbon pricing, regulations Public spending, investment and guarantees Public-private partnerships | National carbon taxes Public investment, social spending Public-private partnership Loan commitments |
| FINANCIAL POLICY TOOLS | Redressing underpricing and lack of transparency of climate risks Supporting the development of green financial securities | Gathering climate-related financial data, climate risk disclosure policies, macroprudential tools, stress testing Standardised taxonomy of green assets, low-carbon indices |
| MONETARY POLICY TOOLS | Integrating climate risk analytics into collateral frameworks, central bank portfolio management, QE | Developing risk assessment tools, ensuring climate risks appropriately reflected in central bank asset portfolios |

monetary policy tools. Central banks are already addressing or should be expected to address these questions and issues. Since the paper was partially written while Signe Krogstrup was at the IMF, its scope goes beyond central bank issues.

The review shows that measures to reduce the demand for fossil fuels and support the financing of private and public climate investments may play a role in the transition. Policymakers have a broad range of tools at their disposal. Many studies suggest that fiscal tools, such as taxes, public investments and guarantees, are central and should play a key role in financing the transition to lower-carbon energy types. The design of such tools is well described in the literature. However, the review also finds that there are considerations about consequences and contributions from other policy areas.

Accordingly, some studies suggest that financial authorities, including central banks, may have a role to play. It is notably argued that climate-related financial risks have increased, but can be difficult

to assess, and that such risks should be reflected in financial stability assessments. This has also given rise to proposals for climate risks to be more adequately reflected in central banks' asset choices in asset purchase programmes. The paper also describes proposals for regulation to ensure access to financing of green investments, e.g. via issuance of green assets. A particularly controversial proposal is for central banks to differentiate their conditions for lending to monetary policy counterparties, favouring counterparties that finance private, green investments. Whether such initiatives are appropriate and compatible with individual central bank mandates is an active discussion in the literature.

Overall, the review of the literature suggests that the policy mix for climate change mitigation is important, but what constitutes an effective and appropriate mix of policy tools has not yet been sufficiently analysed. Hence, it is emphasised that there is an urgent need for research on the interaction and coordination of various policy measures to mitigate climate change.

ABOUT NEWS



News are news articles based on analyses, working papers or other longer texts from Danmarks Nationalbank. News primarily

address journalists, politicians, government officials, specialists and others who want to be updated on current topics.

The news article consists of a Danish and an English version. In case of doubt regarding the correctness of the translation the Danish version is considered to be binding.

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