

ABSTRACT:

Oliver Holtemöller

University of Halle-Wittenberg

Optimal Monetary Policy in a Two-Sector Environmental DSGE Model

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Climate change has become central to the global economic policy agenda. Monetary authorities have begun to express concern about the economic risks posed by climate change, requiring central banks to review their policy. The emerging "Greenflation", as a consequence of the energy transition, has raised the question of whether and how the authorities should react to aggregate and relative price developments. In this paper, we discuss the possible impact, coming from the inclusion of climate change in a two-sector dynamic stochastic general equilibrium model, on the conduct of monetary policy. We investigate the optimal mix of environmental and macroeconomic stabilization policies. In particular, we examine the optimal response of the interest rate to sector-specific price changes. We show that optimal policy rule parameters vary significantly between the models, are affected by the type of environmental policy implemented and depend on the specific shock occurring.