Research Seminar "Quantitative Economics"

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Abstract

CBDC and Business Cycle Dynamics in a New Monetarist New Keynesian Model (Katrin Assenmacher, Lea Bitter and Annukka Ristiniemi)

Abstract

To study the implications of an interest-bearing CBDC on the economy, we integrate a New Monetarist-type decentralised market that explicitly accounts for the means-of-exchange function of bank deposits and CBDC into a New Keynesian model with financial frictions. The central bank influences the store-of-value function of money through a conventional Taylor rule, while it affects the means-of-exchange function of money through CBDC operations. The peak responses to monetary policy shocks are similar with and without the presence of an interest-bearing CBDC, implying that monetary policy transmission to the macroeconomy is not impaired. At the same time, however, the provision of CBDC helps to smooth responses to macroeconomic shocks. By supplying CBDC, the central bank contributes to stabilising the liquidity premium, thereby affecting bank funding conditions and the opportunity costs of money, which dampens and smooths the reaction of investment and consumption to macroeconomic shocks. Comparing our setup to the money-in-utility approach, we find that the latter neglects relevant dynamics that the New Monetarist model is able to capture.