A DSGE model for a SOE with Systematic Interest and Foreign Exchange policies in which policymakers exploit the risk premium for stabilization purposes

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Abstract

This paper builds a DSGE model for a SOE in which the central bank systematically intervenes both the domestic currency bond and the FX markets using two policy rules: a Taylor-type rule and a second rule in which the operational target is the rate of nominal currency depreciation. For this, the instruments used by the central bank (bonds and international reserves) must be included in the model, as well as the institutional arrangements that determine the total amount of resources the central bank can use. The corner.regimes in which only one of the policy rules is used are particular cases of the model. The model is calibrated and implemented in Dynare for 1) simple policy rules, 2) optimal simple policy rules, and 3) optimal policy under commitment. Numerical losses are obtained for ad-hoc loss functions for different sets of central bank preferences (styles). The results show that the losses are systematically lower when both policy rules are used simultaneously, and much lower for the usual preferences (in which only inflation and/or output stabilization matter). It is shown that this result is basically due to the central bank’s enhanced ability, when it uses the two policy rules, to influence capital flows through the effects of its actions on the endogenous risk premium in the (risk-adjusted) interest parity equation.

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