Central Bank Transparency: A Small Open Economy

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We study the issue of transparency of monetary policy in a small open economy using a dynamic stochastic general equilibrium model. The model consists of two countries, the domestic country (small) and the foreign country (large). The economy consists of many industries and experiences both supply and demand shocks. The central bank has private information regarding these shocks and releases its forecasts of shocks under the transparent regime. Monetary policy is conducted using the money supply and the nominal interest rate. We consider two possible cases: (i) when the foreign country is in the transparent regime, and (ii) when it is in the opaque regime. The study addresses the issue of potential benefits for the domestic country of adopting transparency of monetary policy. For a certain class of preferences we show that social welfare does not depend on the degree of transparency of the domestic country. In this case the policy that keeps the wedge between the marginal rate of substitution and marginal product of labor constant across the states is shown to be optimal under both the transparent and opaque regimes. However, in general the opaque regime may dominate or be dominated by the transparent regime in welfare terms. It depends on the regime in the foreign country and preference parameter for foreign goods in the utility of domestic consumers.

We have used the dynamic Ramsey analysis for finding optimal allocations under different policy regimes. We have shown that the optimal monetary policy in both transparent and opaque regimes follow the Friedman rule of zero nominal interest rate. In contrast to a large body of literature on central bank transparency where one can find arguments either for or against transparency, one of our main findings is that social welfare does not depend on the level of transparency when preferences are logarithmic in consumption or linear in leisure. It is shown in this case that, under opacity, even though the potential set of equilibrium allocations is larger and includes ones with varying wedges between the marginal rate of substitution and marginal product of labor, it is still optimal for the central bank to aim for constancy of wedges across states. For preferences outside this class we demonstrate that the opaque regime is welfare superior to the transparent regime when central bank forecasts are sufficiently accurate. Our numerical analysis confirms that in general the optimal allocation under opacity does not exhibit constant wedges.

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