Exchange rate volatility and welfare in an incomplete markets' economy

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Abstract

In a two-country OLG economy, we show that the nominal exchange rate is volatile in the presence of demand shocks, unless markets are effectively complete. Market incompleteness implies that there is scope for monetary policy to improve upon the competitive equilibrium. However, central banks' competition can exacerbate the volatility of the nominal exchange rate. We prove that cooperation between central banks can eliminate this excess volatility as well as nullify the effects of the demand shocks through exchange rate smoothing. Cooperation improves the welfare of all agents of the world economy for an open set of parameters. For common parameter values, the gains from cooperation are substantial as they involve an increase in output between 4% and 5%. Interestingly, successful cooperation might require that countries are weighted differently in an aggregated social welfare function. That could explain the lack of cooperation across countries, instead of the negligible gains from cooperation as previously argued.