Monetary Policy and the Uncovered Interest Rate Parity Puzzle

David K. Backus, Federico Gavazzoni, Stanley E. Zin and Chris Telmer

Abstract

High interest rate currencies tend to appreciate. This is the uncovered interest rate parity (UIP) puzzle. It is primarily a statement about short-term interest rates and how they are related to exchange rates. Short-term interest rates are strongly affected by monetary policy. The UIP puzzle, therefore, can be restated in terms of monetary policy. When one country has a high interest rate policy relative to another, why does its currency tend to appreciate? We represent monetary policy as foreign and domestic Taylor rules. Foreign and domestic pricing kernels determine the relationship between these Taylor rules and exchange rates. We examine different specifications for the Taylor rule and ask which can resolve the UIP puzzle. We find evidence in favor of asymmetries. If the domestic Taylor rule responds more aggressively to inflation than does the foreign Taylor rule, the excess expected return on foreign currency increases. A related effect applies to Taylor rules that respond to exchange rates and/or lagged interest rates. A calibrated version of our model is consistent with many empirical observations on real and nominal exchange rates, including Fama’s (1984) negative correlation between interest rate differentials and currency depreciation rates.