A Macro-Finance Approach to Exchange Rate Determination

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Summary
The nominal exchange rate is both a macroeconomic variable equilibrating international markets and a financial asset that embodies expectations and prices risks associated with cross border currency holdings. Recognizing this, we adopt a joint macro-finance strategy to model the exchange rate. We incorporate into a monetary exchange rate model macroeconomic stabilization through Taylor-rule monetary policy on one hand, and on the other, market expectations and perceived risks embodied in the cross-country yield curves. Using monthly data between 1985 and 2005 for Canada, Japan, the UK and the US, we employ a state-space system to model the relative yield curves between country-pairs using the Nelson and Siegel (1987) latent factors, and combine them with monetary policy targets (output gap and inflation) into a vector autoregression (VAR) for bilateral exchange rate changes. We find strong evidence that both the financial and macro variables are important for explaining exchange rate dynamics and excess currency returns, especially for the yen and the pound rates relative to the dollar. Moreover, by decomposing the yield curves into expected future yields and bond market term premiums, we show that both expectations about future macroeconomic conditions and perceived risks are priced into the currencies. These findings provide support for the view that the nominal exchange rate is determined by both macroeconomic and financial forces.