

# DISSERTATION PROPOSAL

## Essays on Asset Pricing Puzzles

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388 Posner Hall

Essay 1: Uncovered Interest Rate Parity Puzzle: An Explanation based on Recursive Utility and Stochastic Volatility

I examine the uncovered interest rate parity puzzle in a two-country economy where agents have recursive preferences. The model rationalizes the anomaly thanks to the presence of two ingredients: preference for the early resolution of risk and stochastic volatility in consumption growth. When U.S. consumption volatility is relatively low, exchange rate variability is closely tied to shocks in U.K. consumption. This is foreign exchange risk for the U.K. investor. At the same time, the preference for the early resolution of risk drives the U.S. interest rate up when U.S. volatility is low, thus solving the puzzle. The model, therefore, provides an intuitive explanation of the puzzle based on the relative level of consumption volatility across countries. Notably, and unlike previous studies, the model does not rely on variables that are intrinsically hard to measure, such as Bansal and Yaron's (2004) long-run risk.

Essay 2: Monetary Policy and the Uncovered Interest Rate Parity Puzzle (with David K. Backus, Chris Telmer and Stanley E. Zin)

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. Do foreign and domestic monetary policies imply exchange rates that violate UIP? 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 a particular asymmetry. If the foreign Taylor rule responds to exchange rate variation but the domestic Taylor rule does not, the model performs better. 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 and Lustig, Roussanov, and Verdelhan's (2010) cross sectional evidence on currency risk premia.

### Essay 3: Monetary Policy and Long-Run Risk

I show that long-run risk - highly persistent variation in expected consumption growth - arises endogenously in a production economy with nominal frictions. The "long-run" part comes from price stickiness. The nominal frictions inherent in standard New Keynesian models generate a consumption growth process that is close to i.i.d. unconditionally, but has a highly persistent conditional mean. The "risk" part comes from Epstein-Zin preferences, which result in a large risk premium being associated with the variation in this conditional mean. A calibrated version of the model generates risk-free interest rate and equity risk premia behavior that are consistent with U.S. data. An important restriction is that the representative agent has a preference for the late resolution of uncertainty.