Research Statement

My primary research interests lie in the fields of macroeconomics and international finance. I am interested in the role that frictions, such as information, transaction or pricing frictions, play in goods and financial markets, and in their effects on macroeconomic aggregates and asset prices on both the national and international level. My dissertation focuses on understanding how information and transaction frictions can help explain two long-standing puzzles on exchange rate behavior and international portfolio allocations. In other work, I explore demand uncertainty and ambiguity aversion as a potential explanation of the discrete and sticky nature of firm pricing choices. In an earlier project, I examine the effect of terms of trade shocks on the business cycles of small open economies.

My job market paper, “Exchange Rates and UIP Violations at Short and Long Horizons”, addresses the Uncovered Interest Parity (UIP) puzzle, one of the longest standing puzzles in the international finance literature. The UIP condition is central to exchange rate determination in standard international models, and implies that, on average, one currency should depreciate against another by the amount that their interest rates differ. The so called “UIP puzzle” is that, at short horizons, high interest rate currencies depreciate less than predicted by the interest rate differential, and in many cases even appreciate. I show that there is more to the puzzle, however, as it changes nature with the horizon over which exchange rate changes are observed. I confirm the existing short-run evidence, but at longer horizons (3+ years) I find a reverse puzzle: high interest rate currencies depreciate too much. I propose a novel model that incorporates the mechanism of bond convenience yields and can explain the full complexity of UIP deviations at both short and long horizons. I also provide direct empirical evidence that supports the mechanism.

In another chapter of my dissertation, “Endogenous Information Asymmetry and Portfolio Bias”, I explore a framework of endogenous information asymmetry as a resolution of the Home Equity Bias puzzle, the observation that aggregate national portfolios tend to be excessively concentrated in domestic assets. In the model, agents optimally choose to focus their limited attention on domestic information and, as a result, choose to concentrate their portfolios in the endogenously “familiar” assets. I explore an uncertainty structure that implies decreasing returns to information, whereas the previous literature has focused on a setup with increasing returns. I show that the two frameworks have differing implications, which I test in the data and find support for decreasing returns to information.

In joint work with Alfonso Irarrazabal and Dagfinn Rime, “A Structural Estimation of a Heterogeneous Information Model of Exchange Rates”, we use a model of dispersed information to quantify the driving forces that connect exchange rates and order flow. The strong relationship between order flow and exchange rates is especially surprising given the lack of connection between exchange rates and macroeconomic fundamentals in the data. In another on-going project with with Nicolas Vincent and one of my advisors, Cosmin Ilut, “Paralyzed By Fear: Rigid and Discrete Pricing under Demand Uncertainty”, we study firm pricing decisions under general forms of demand uncertainty and ambiguity. We show this framework can rationalize puzzling empirical features of prices such as stickiness, long memory and
discreteness. Finally, in earlier work, “Do World Prices Affect Small Open Economies?”, I empirically examine the effect of terms of trade shocks on small open economies.

There are several promising future research directions that stem from my job market paper. I would like to incorporate convenience yields and time-varying risk, one of the most extensively studied UIP mechanisms in the existing literature, in a single model and study their interaction, both in the model and in the data. Another avenue I would like to explore, is to add long-term bonds and interest rates to my model and study the relationship between the convenience yield, UIP deviations at different horizons, and the term structure of interest rates. Another possibility I am excited to pursue is the role of information frictions in hindering transactions (especially in financial markets) as a possible way of endogenizing the convenience yield mechanism, and linking UIP violations to a deeper economic force.

In addition, I have planned a number of research extensions to my other projects. I am interested in introducing endogenous information choice to the the heterogeneous information model of exchange rates and order flow that my co-authors and I estimate. This could help endogenously generate stochastic volatility and skewness in exchange rate movements, both of which are important empirical features. We are also interested in using network estimation techniques in our rich dataset to quantify the interconnectedness of the global foreign exchange markets and study how information is propagated through them. Finally, my co-authors on the sticky price paper and I have only just begun analyzing a very rich modeling framework and plan numerous extensions along dimensions such as general equilibrium considerations and optimal policy.