Project update.

This year, I have been researching international risk sharing and the importance of the international monetary system- the supply and demand of internationally traded assets. Firstly, I am working on a general equilibrium model with endogenous issuance of internationally traded safe assets. Secondly, I have developed an international real business cycles model, where not only are financial markets incomplete, they are also segmented. The segmentation arises from the need to hold safe assets (motivated by enforcement constraints), together 3with market power in the issuance of safe assets. Early results show that the drastic decrease in safe assets between 2007-2011, allowed issuers of international safe assets to reduce the yields and this lead to increased segmentation of international financial markets. In response to productivity shocks, winners and losers become more pronounced. Moreover, extending the model to feature global imbalances, a borrower and lender, allows shocks to the supply of safe assets to explain welfare losses, even in the absence of productivity shocks. Drawing from the first model, I show that shocks to political preferences and lack of commitment on behalf of safe asset issuers, have implications for the supply and demand of safe assets.

For the past few months I have been visiting the ECB to share this research and expand on it. I have gathered some data and helped build tools for monitoring international risk sharing. In particular, we have constructed a time series measure of a panel of Backus Smith statistics. This will be used to assess long term trends in risk sharing, the impact of the crisis and the plausibility of market incompleteness as a key restriction to risk sharing.

Moreover, I have embarked on a project which analyses exchange rate determination in imperfect financial markets. The paper is able to parsimoniously reconcile stationary real exchange rates and the time profile of exchange rate premia (aka delayed overshooting), as recorded in Engel (2016). The key mechanism revolves around global financiers who have monopoly power over currency trading. Exchange rate movements happen to compensate these agents for bearing risk. An ECB working paper will be submitted soon.

To assist with my research above, I have also teamed up with Simon Lloyd, currently at the Bank of England top develop a new solution method for portfolio choice in RBC models.

I have also presented my first chapter, on sovereign debt crises, at major conferences, such as the Royal Economic Society and ADEMU in Toulouse, and have received a student paper award from CERF.

Self-fulfilling Crises and Country Solidarity:

Sovereign risk premia reflect investors' beliefs for the equilibrium and off -equilibrium actions of international agents. This paper investigates the international dimension of self-fulfilling sovereign debt crises and characterizes self-interested bailouts (solidarity) and contagion. A credible bailout guarantee by a partner country or international agency can lower a debtor country's borrowing costs and reduce the probability of belief driven default. However, time consistency undermines an international agent's ability to commit to intervention. Investors internalise the probability that a bailout never materializes and this endogenously increases its cost. Hence solidarity will generally be insufficient to rule out non-fundamental equilibria, explaining why high sovereign debt yields can

persist despite guarantees. When countries are heavily indebted, expectations of default in one country's debt market can result in the default of its economic partner. Moreover, while large international agents are able to resolve the coordination failure, in contrast to the market, they internalise spillover costs of default and cannot credibly enforce repayment. Introducing information asymmetries results in novel on-equilibrium debt dynamics.

https://www.finance.group.cam.ac.uk/beststudentpaperaward/CountrysolidarityandSelfFulfillingCrisesSubmission.pdf

Presented at RES 2017, ADEMU Toulouse 2017

Exchange rate determination in imperfect financial markets

In a model of financial determination of exchange rates in imperfect markets, we can explain the time profile of exchange rate premia as an outcome of risk averse global financiers, market power and expectations of mean reversion in exchange rates. Movements in the exchange rate are required to compensate financiers for bearing risk. However, expectations of mean reversion in the real exchange rate provide scope for delayed overshooting.

ECB working paper series submission. Draft available soon.

International risk sharing and the International Monetary System

Draft available soon.

Presented at the ECB International Policy Analysis Seminar