CERF Studentship Report: Project Update (April 2022)

Naoki Yago

Title: Exchange Rate Risk and Global Financial Instability

Presentation:

Title: Monetary Transmission under Heterogeneous Exchange Rate Exposure
2022: Ghent University Workshop on Empirical Macroeconomics
2023: American Economic Association Annual Meeting, New Orleans (scheduled)

Title: Intervening against the Fed
2022: Monday Lunchtime Meeting, Judge Business School, the University of Cambridge (scheduled)

Non-technical summary:

Project 1: Monetary Transmission under Heterogeneous Exchange Rate Exposure

The project studies transmission of U.S. monetary policy to emerging market economies (EMEs) when firms are heterogeneous in terms of exposure to exchange rate risk. Recent literature shows that large firms have better access to foreign currency debt as they can tolerate the default risk relative to small firms (Maggiori et al., 2020). I use the data on identified monetary shock using a high-frequency method (Nakamura and Steinsson, 2018) and currency denomination of corporate debt. I found that, when the Fed tightens, large firms reduce the share of dollar debt over total debt, as well as investment in capital and financial assets, while there is little effect on small firms. These results imply that firm size heterogeneity and currency denomination of debt are important to understand the international transmission of monetary policy.

Project 2: Intervening against the Fed (with Alexander Rodnyansky and Yannick Timmer)

This project provides a novel identification methodology of sterilized foreign exchange (FX) intervention, meaning that central banks purchase or sell foreign currency to stabilize the exchange rate. We use the US monetary shocks identified by high-frequency method, as well as daily data on FX intervention, exchange rate, and stock price. We showed that, without FX intervention, an unexpected Fed funds rate hike depreciates local currencies and reduces stock price of firms with dollar debt. However, if central banks counteract against depreciation by selling US dollars, US monetary shocks have little effect on exchange rate and stock price. This implies that FX intervention is successful in stabilizing both the exchange rate and stock market.

Project 3: Financial Market Globalization and Asset Price Bubbles

Recent boom-bust cycles concerning asset prices were preceded by massive in- and outflows of foreign speculative investments. These large fluctuations in asset prices are called “bubbles” as they are difficult to explain by economic fundamentals.

I showed that, in assessing the effects of financial globalization on asset bubbles, the conditions of financial market play an important role. In particular, in economies with either developed or underdeveloped financial market relative to the foreign one, bubbles cannot arise under financial autarky but they can arise under financial globalization.

I submitted this paper to a peer-reviewed journal and it is currently under review.

Project 4: Disaster Risk, Flight to Safety, and UIP Premium

This project aims to provide a novel explanation for deviation from uncovered interest rate parity (UIP), that is, why the rate of return on dollar bonds is lower than that of other currencies. I hypothesize that disaster risk on non-US (local) bond return increases the demand for dollar bond and drives UIP deviation. Since investors are risk averse in bad times, they increase the demand for dollar bond so that dollar appreciates. This potentially provides a solution to “reserve currency paradox,” that is, why the dollar appreciates during global crises. I constructed a small open economy model to explain this mechanism and plan to extend the model to a more general two-country framework.

Presentation

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Working paper

Title: Financial Market Globalization and Asset Price Bubbles
Cambridge Working Paper in Economics, No. 2167

Abstract:
We construct a two-country model of rational bubbles with asymmetric degrees of financial development. We show that whether financial globalization gives rise to bubbles crucially depends on the levels of financial development in the two countries. In economies with either developed or underdeveloped financial market relative to the foreign one, bubbles cannot arise under financial autarky but they can arise under financial globalization. Moreover, unlike previous literature, bubbles in sufficiently well-developed financial markets lead to welfare losses in other countries.