CERF Studentship Report: Project Update (April 2022)

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Title: Exchange Rate Risk and Global Financial Instability

Presentation:

Title: Monetary Transmission under Heterogeneous Exchange Rate Exposure
Presented at:
2021 Macro PhD Workshop, Faculty of Economics, the University of Cambridge
2022 Monday Lunchtime Seminar, Judge Business School, the University of Cambridge

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. It is well-known that the U.S. monetary tightening increases the corporate borrowing risk in EMEs due to the currency mismatch on balance sheets. However, 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). This paper considers two specific questions. First, in response to the U.S. monetary tightening, how do the firms in EMEs change dollar leverage and investment? Second, is the response heterogeneous between large and small firms?

To answer this question, I use the data on identified monetary shock using a high-frequency method (Nakamura and Steinsson, 2018) and currency denomination of corporate debt. I find that large firms reduce the ratio of total debt over total debt. Moreover, large firms with dollar debt also reduce capital investment, as well as cash holdings and risky financial assets. In the next step, I plan to study the contagion of U.S. monetary shock to the local credit market. If large firms with dollar debt invest in bonds or equity of other firms, especially the small firms, even firms which are not directly exposed to exchange rate risk are also affected by U.S. monetary shocks. This is important for policymakers as currency risk cannot be simply measured by the direct exposure to the currency composition of debt.

Project 2: High-Frequency Identification of Foreign Exchange Intervention (with Alexander Rodnyansky and Yannick Timmer)

This project empirically studies the effect of foreign exchange intervention

(FXI), meaning that central banks purchase or sell foreign currency to stabilize the exchange rate. Our idea is to use the data on purely identified monetary shocks using the high-frequency method and study the effect of FXI using the event study approach. In particular, we ask how FXI affects the exchange rates and stock prices of heterogeneous firms. We find that when the Fed tightens, selling U.S. dollar experience lower depreciation. Moreover, buying the U.S. dollar increases stock prices for exporting firms but reduces stock prices for firms with dollar debt.

Project 3: Financial Market Globalization and Asset Price Bubbles

Recent boom-bust episodes 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 be explained 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.