CERF Studentship Report: Project Update (September 2023)

Naoki Yago

Title: Exchange Rate Risk and Global Financial Instability

<u>Presentation</u>

Title: Intervening against the Fed
Joint with Alexander Rodnyansky (Cambridge) and Yannick Timmer (Federal Reserve Board)

Presentation by me:

- CERF Cavalcade
- 2nd Annual International Roles of the U.S. Dollar Conference, Federal Reserve Bank of New York
- 2023 EEA Annual Congress, Barcelona School of Economics
- 2023 Econometric Society Asia Meeting, Tsinghua University (online)
- 2023 MMF Annual Conference, University of Portsmouth (scheduled)
- 2023 Workshop on Empirical Macroeconomics, Ghent University (poster)
- 2024 AEA Annual Meeting, San Antonio (poster, scheduled)

Presentation by co-author:

- 2023 Society for Economic Dynamics Annual Meeting, Colombia
- 1st annual conference of the Banco Central do Brazil

Non-technical summary:

<u>FX Intervention and CIP and UIP deviations</u> (with Mai Chi Dao, Pierre- Olivier Gourinchas, and Rui Mano)

The project builds on my IMF internship project. We study how foreign exchange intervention (FXI) affects the deviations from covered and uncovered interest rate parities (CIP and UIP). While previous studies mainly focused on FXI in spot market, central banks also intervene in forward market to provide investors with insurance against currency risk. We use daily data on spot and forward market interventions in Brazil, combined with daily data on exchange rate and interbank interest rate.

We find that, an increase in global risk, represented by higher VIX index, leads to CIP deviation via increase in hedging demand and costly financial intermediation due to capital control, and UIP deviation due to limited risk-bearing capacity of global financial intermediaries. FXIs in both spot and forward markets are effective in closing CIP deviation: by selling dollar in the spot market and purchasing dollar in the forward market, central banks can accommodate investors' currency hedging demand. Moreover, FXI in spot market also closes UIP by shifting the balance sheet risk from global financial intermediaries to central banks. In future research, we will study more detailed relationship between CIP and UIP deviations and international capital flows.

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

This paper studies the spillovers of US monetary policy and the mitigating role of foreign exchange interventions (FXI) by combining deviations from a daily FXI policy rule with high-frequency US monetary policy shocks, daily exchange rates, and firm-level stock prices, as well as firm-level balance sheet variables across several countries. We first present evidence that–without interventions– contractionary US monetary policy shocks spill over through a balance sheet channel: foreign exchange rates depreciate and stock prices fall, driven by those firms with US dollar debt. However, when countries counter-intervene, the spillover of US monetary policy tightening is muted. FXIs entirely offset the depreciation of the domestic exchange rate and the reduction in stock price for firms with US dollar debt, suggesting that "intervening against the Fed" protects economies from the adverse spillover of US monetary policy tightening through the balance sheet channel of exchange rates.