

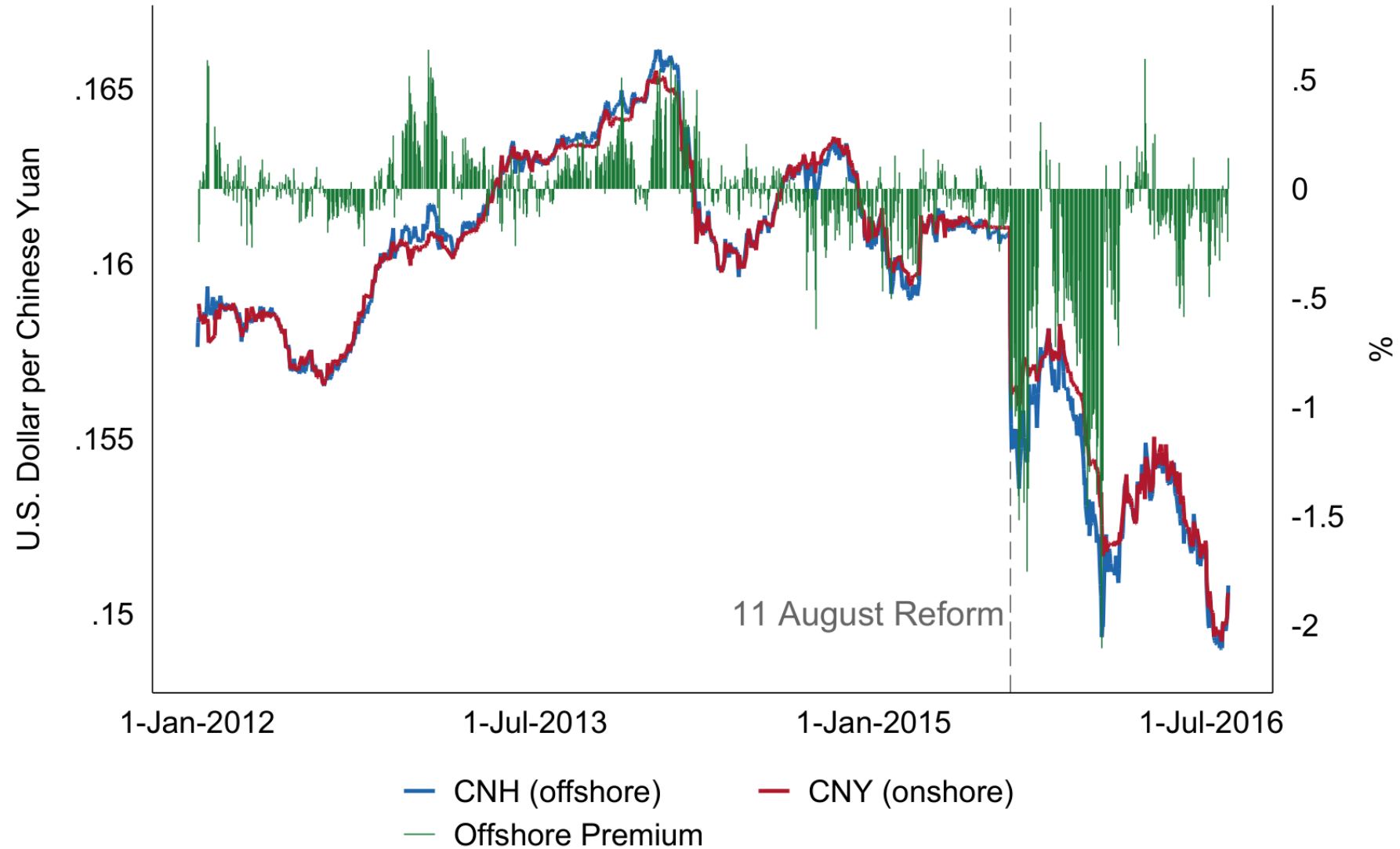
Capital Flight with Intra-firm Lending

Authors: Jiafei Hu and Haishan Yuan

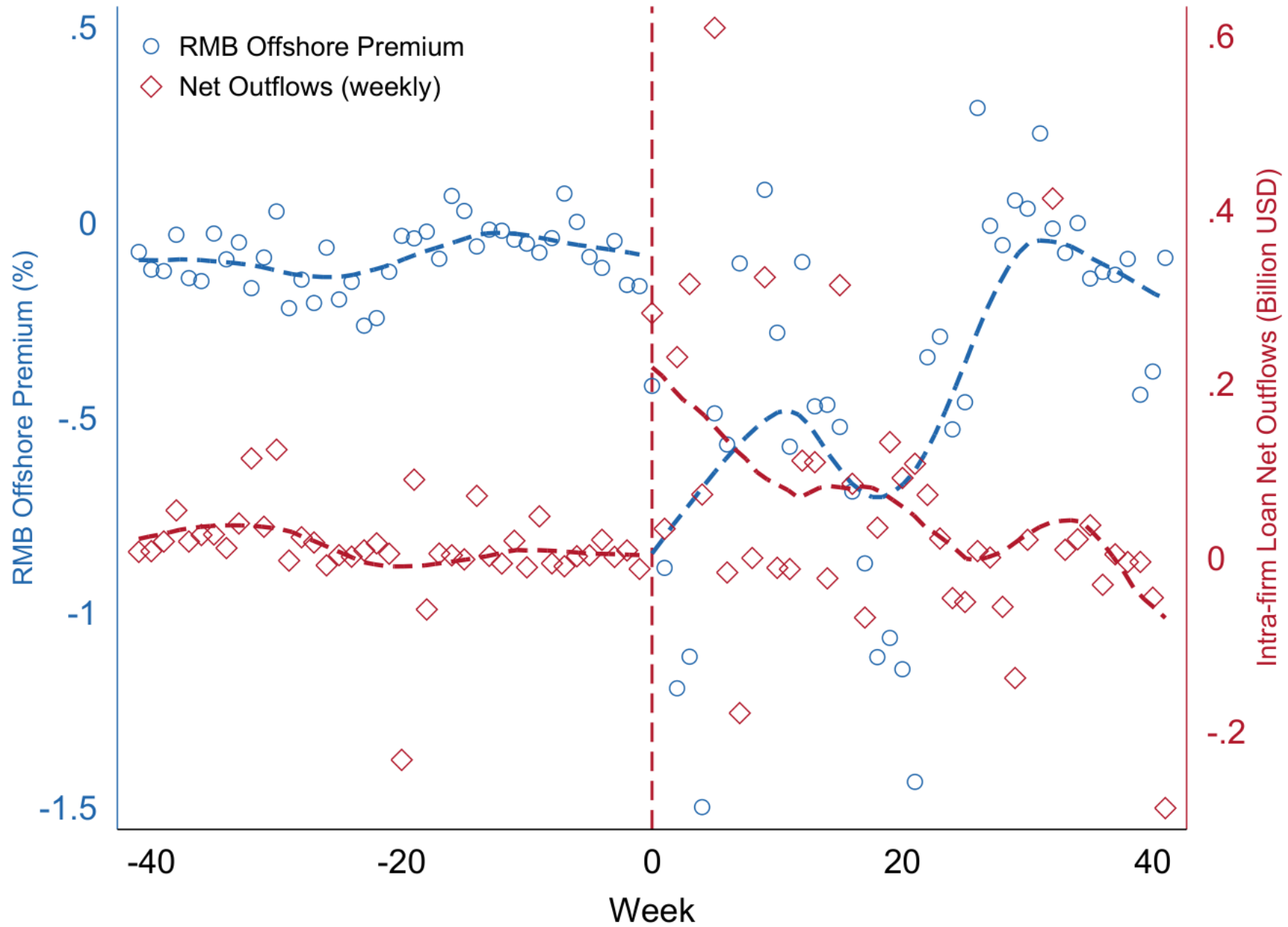
Discussant: Tianyue Ruan (National University of Singapore)

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August 2015 sudden devaluation of the Chinese Yuan (CNY)



Capital flight with intra-firm lending in one figure



Outline of discussion

- Interesting paper on the intersection between corporate finance and international economics/finance
- (Incomplete) recent publications in top econ & finance journals in this area: Bruno & Shin (RFS, 2017); di Giovanni, Kalemli-Özcan, Ulu, & Baskaya (REStud, 2021); Gutierrez, Ivashina, & Salomao (JFE, 2023); Acharya & Vij (REStud, forthcoming), etc
- Comments and ideas
 - Understanding the August 2015 policy change
 - Aggregate versus disaggregated analyses

August 2015 unexpected change to CNY/USD pricing mechanism

- 2-sentence announcement to change the CNY/USD central parity quoting mechanism on August 11, 2015
- Stated purpose: “enhancing the market-orientation and benchmark status of central parity”
- What changed? Dealer banks were asked to submit quotes that took the closing rate of the previous day into account, in conjunction with market demand and supply and exchange rate movements of major currencies.
- Immediate effect: 1.9% depreciation of CNY relative to USD on the announcement day (biggest 1-day drop since China ended a dual-currency system in January 1994); VIX ↑ to 4-year high
- A further 1% drop on August 12, before stabilizing and trading in a very narrow range from mid-August until end-September

August 2015 devaluation of the CNY: background

- In the prior decade, China had been propping up the Yuan to
 - Deter capital outflows
 - Protect foreign-currency borrowers
 - Make a case for official reserve status at the IMF
- In 2014-2015H1, changing sentiment that CNY started to become overvalued, sharp change to China's balance of payments
- The August 2015 depreciation is viewed to
 - Support export
 - Combat economic slowdown (deepest since 1990)

“Today’s sudden policy move is a reaction to a significant weakening of China’s export numbers in July and rising deflation risk.”

ANZ chief Greater China economist quoted by Bloomberg

- PBoC: its new fixing will become more aligned with supply and demand.

August 2015 devaluation of the CNY: intended as one-time

China Devalues the Yuan by Most in Two Decades

The move signals policy makers are bolstering efforts to support exporters and boost the role of market pricing. The People's Bank of China called it a one-time adjustment.

■ China Yuan, U.S. Dollar Exchange Rate



Tuesday's devaluation was a one-off adjustment and shouldn't be interpreted as a sign that the yuan will enter a depreciation trend, PBOC chief economist Ma Jun was cited as saying in a Caixin report. **The central bank said it will stabilize market expectations** and ensure the new reference-rate mechanism will take effect "in an orderly manner."

Bloomberg

"China Rattles Markets With Yuan Devaluation," Bloomberg News, August 11, 2015. Link:

<https://www.bloomberg.com/news/articles/2015-08-11/china-weakens-yuan-reference-rate-by-record-1-9-amid-slowdown>

August 2015 devaluation of the CNY: turned out to be persistent

- Capital outflows have accelerated since August 2015, as many market participants interpreted the change as the **beginning of a sizeable CNY depreciation**, consistent with the patterns of the offshore premium
- CNY/USD began to depreciate again in December 2015 and early 2016
- Substantial intervention measures to stabilize the market:
 - CFETS exchange rate index introduced in 2015
 - Enforcement of existing capital flow management measures (on overseas direct investment and **CNY offshore lending**) tightened
 - Other measures introduced: a reserve requirement on banks' FX forward transactions.

PBoC tightened control on CNY offshore lending in November 2016

- CNY offshore lending allowed between firms with “shareholding relationship” (therefore only “**intra**-firm” loans within MNCs, as opposed to “**inter**-firm” loans in China)
- On November 29, 2016, [PBoC \[2016/306\]](#) tightened control on CNY offshore lending
- Major changes:
 - Mainland NFC lender needs to be incorporated for at least 1 year
 - Required pre-lending registration with local FX authority
 - Upper limit of offshore lending balance
 - Restrictions on sources of funds that can be used for lending
 - Additional requirements on interest rate & loan maturity (beyond the “commercially reasonable” condition)

Understanding the August 2015 policy change: summary

- Events leading up to & following the August 2015 change present a potential threat to the regression discontinuity in time design

Suggestions:

- 1. Discuss the relevant events & why or why not they affect the exchange rate expectations.*
 - 2. Use earlier sample to test capital inflows during the appreciation cycle to complete the test of the conceptual framework*
- The November 2016 tightening on CNY offshore lending can be viewed as a validation of the phenomenon documented in this paper. I'd encourage the authors to emphasize this and ideally expand their analysis beyond 2016!

Aggregate versus disaggregated analyses

- All analyses are done on aggregated daily time series (e.g., total intra-firm loan outflows across all firms, total intra-firm loan outflows to tax havens across all firms)
 - Main advantage: High frequency
 - Obvious limitations:
 - Composition of firms is changing over time
 - Inability to include borrower, lender, or bank-level controls
 - potentially important for firms' internal capital markets
- The underlying data appear to include firm identifiers and bank identifiers
 - potential for disaggregated analyses

Firm-level analyses as a complementary/alternative approach

- Advantages of firm-level analyses
 - The ability to control for unobserved firm characteristics via including firm fixed effects
 - The ability to control for time-varying firm-level determinants of internal capital markets
 - Isolate the composition effects that could drive aggregate time series
 - Separately examine the extensive margin and intensive margin
 - Examine the heterogeneous treatment effect
- At firm level, intra-firm lending probably is much less frequent → the suitable frequency for firm-level analyses is lower to avoid data sparsity
- Difference-in-differences design instead of RD in time design would be even better!

Exploring the role of banks

- CNY offshore lending is conducted via commercial banks in China
 - “Domestic non-financial institutions which carry out overseas RMB loan business shall apply to domestic banks to open special RMB deposit accounts dedicated to the provision of RMB loans overseas, in accordance with the *Measures for the Administration of RMB Bank Settlement Accounts* (Order No. 5 [2003] of the People's Bank of China) and other provisions on the administration of bank settlement accounts.”

[PBoC \[2013/168\] item II.3](#)

- di Giovanni, Kalemlı-Özcan, Ulu, & Baskaya (REStud, 2021) and Gutierrez, Ivashina, & Salomao (JFE, 2023) highlight the role of banks in shaping corporate carry trades
- The data has the capacity to allow an analysis of the role of banks, as a relevant dimension for heterogeneous effects

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