Discussion of:

"Interest Rate Arbitrage under Capital Controls: Evidence from Reported Entrepôt Trades"

by Jiafei Hu and Haishan Yuan

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ABFER 6th Annual Conference, Singapore

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An Alternative and More Informative Title:

"Can you Arbitrage the People's Bank of China?"

by Jiafei Hu and Haishan Yuan

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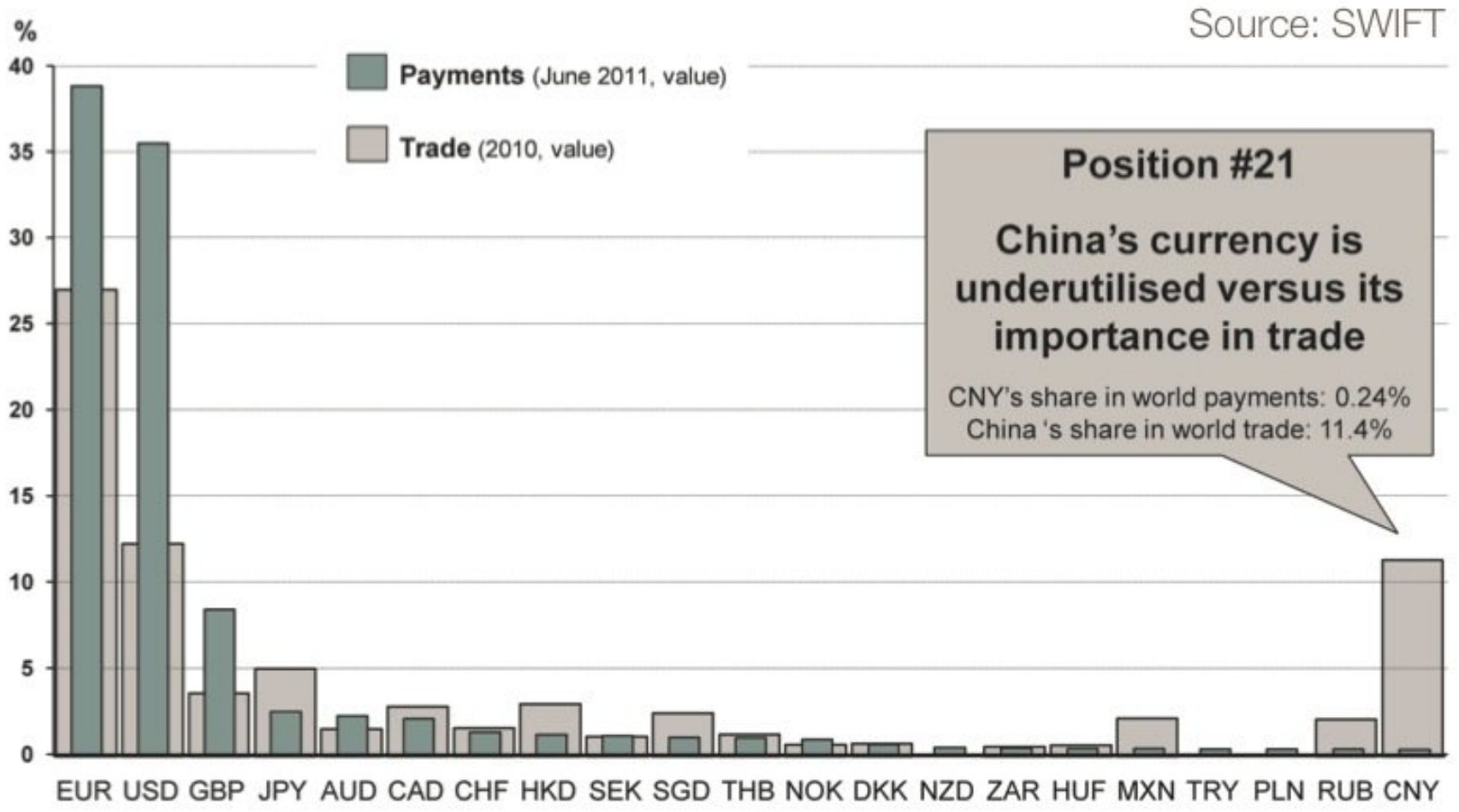
Background

✓ The CNH – offshore *renminbi* – was introduced by China to internationalize its currency without opening its capital accounts.



Background

- ✓ Are offshore (CNH) and onshore (CNH) *renminbi* different?
  - ✓ driven by demand a supply on separate markets, and CNH does not fluctuate within a tight band as the CNY,
  - ✓ CNH is generally weaker than CNY when there are depreciation expectations, and viceversa,
  - ✓ converting *renminbi* in dollars, for instance, will have a different exchange rate depending on whether one uses the CNH or CNY.
- ✓ Can you easily swap CNH for CNY?
  - ✓ an underlying trade flow is needed because of capital controls on capital flows,
  - ✓ Hong Kong is the main trading center for CNH and HKMA provides liquidity thanks to a swap agreement with PBoC.

Onshore/Offshore Dollar Exchange Rate

- ✓ China often intervenes in offshore market to maintain a tight spread
  - ✓ an IMF's requirement to have the *renminbi* in the currency basket underlying the SDR,

Source: Intraday (10 minutes) dollar exchange rates from Thomson Reuters.

Any Room for Arbitrageurs?

Arbitrage I: Exploiting the Exchange Rate Differential

- ✓ You can arbitrage the exchange rate differential if you can transfer *renminbi* to offshore centers (e.g., Hong Kong and Singapore),
  - ✓ Suppose that buying USD is cheaper using CNY than CNH,
  - ✓ An arbitrageur borrows \$1 and then buys CNY in China, say at the exchange of 6 CNY/USD,
  - ✓ She then imports something with minimum transportation costs (gold?) from Hong Kong and settles the imports in CNY,
  - ✓ CNY flows to Hong Kong and becomes CNH.
  - ✓ A business partner will then convert CNH into USD in Hong Kong, say at the exchange rate of 6.10 CNY/USD.
  - ✓ Finally, she exports the imported gold which is settled in USD, dollars flows into mainland China and the arbitrage is completed.

Any Room for Arbitrageurs?

Arbitrage II: Exploiting the Interest Rate Differential

- ✓ Onshore and offshore interest rates for *renminbi* are different
  - ✓ In China, an arbitrageur could borrow 1 CNY at 6% for two weeks (time needed for getting CNH loans in Hong Kong?),
  - ✓ She then opens a bank deposit for a year at 3% and asks the bank to issue a letter of credit (L/C),
  - ✓ She then imports something with minimum transportation costs (gold?) from Hong Kong using the L/C,
  - ✓ A business partner receives the L/C, and discount it at the one-year offshore interest rate (¡ onshore rate),
  - ✓ CNH is then wired to Mainland China and the arbitrage is completed.

Summary of the Paper

- ✓ This paper studies the interest rate differential arbitrage using entrepôrt (fictitious) trades
  - ✓ A rich and novel dataset on administrative RMB inflows and outflows reported from entrepôrt trades between 2011 and 2016,
  - ✓ The dataset refers to one of the largest coastal province of China,
  - ✓ The authors have information about receipt dates, transaction value of trades, identifiers and payers in China, etc.
- ✓ **Key Results**
  - ✓ In the data, 98% (77%) of the inflows (outflows) are settled through wire transfers (L/C),
  - ✓ the interest rate differential is strongly correlated with MB inflows from entrepôrt trades,
  - ✓ the arbitrage is feasible but potentially costly.

Comment I

- ✓ You have a beautiful dataset but you do not fully exploit it!
- ✓ What is the economic value of this onshore-offshore arbitrage?
  - ✓ you assume than an investor has a startup amount of money but a pure arbitrage strategy implies a long-short strategy.
  - ✓ Can you quantify the average excess return per RMB invested? How expensive is this strategy? (several bits and pieces involved),
  - ✓ Who is behind this arbitrage? Small investors?
  - ✓ you work with 3-month rates and expose yourself to roll-over risk as the strategy is typically based on one-year horizon,
  - ✓ Is still tradable? Apparently, the spread has narrowed significantly since mid-2015.

Comment II

- ✓ Is this a riskless or a risky strategy?
- ✓ Perhaps this is a risky strategy and the excess return you enjoy is compensation for it. Any results?
- ✓ Have you thought about the peso problem? The CNH/CNY could deviate from 1 in the future and then invalidate the arbitrage.

Comment III

- ✓ Can you go beyond correlations?
  - ✓ Can you make any causality statement?
  - ✓ You can have reverse causality as well as endogeneity issues in your key regression?
  - ✓ You have information about payers and receivers, can you disentangle demand shocks from supply shocks?
  - ✓ You could add a payers fixed effect interacted with time to control for changes in demand shocks.
- ✓ Can you setup a difference-in-differences exercise?
  - ✓ You could perhaps use the China's FX reform 11 August 2015 as an exogenous event?

Conclusion

- It is a very interesting paper
- I have enjoyed very much reading it
- I look forward to reading the revised version of this paper
- I will definitely add it to my reading list

Thank you!