Comments on

Do central banks rebalance their currency shares?

by Menzie D. Chinn, Hiro Ito and Robert N. McCauley

Discussant: Andreas Steiner, University of Groningen

JIMF SI-Conference
Financial Globalization and De-Globalization
May 2021

Summary

Research question:

Do central banks manage their international reserves such that currency shares are constant despite exchange rate changes?

- There is a literature on the determinants of reserve currency status.
  (e.g. Chinn and Frankel, 2005, 2008; Eichengreen and Mathieson, 2000)
- Literature how central banks manage their reserve portfolio is thin.
  (e.g. Aizenman, Cheung and Qian, 2020.)
- Most central banks do not disclose their reserve management principles.

$\rightarrow$ **Clear gap in the literature that this paper fills.**

Summary: Reserve Policies

The share of USD in FX reserves depends on...

- **active reserve policy**: change in **quantity** of reserves
  - increase/decrease in total reserves
  - rebalancing
- **passive reserve policy**: change in **value** of reserves
  - exchange rate changes
  - change in the market value of reserve assets

Summary: Empirical Strategy

- Use data from the COFER database and the Ito-McCauley database (2020) on currency shares in central banks' foreign exchange reserves.
- Calculate valuation effect defined as the difference between the USD share after and before an exchange rate change.
- Example of a dollar depreciation:

  share with valuation change only $= 80\%$
  observed share $= 75\%$
  $\rightarrow$ valuation effect $= 5\%$

- Regression of currency share on valuation effect

Summary: Empirical Approaches

1. Graphical analysis of time-series
2. Regression of the shares on a trend
3. Time-series regression
4. Panel data regression

Summary: Findings

1. The US does not rebalance.
2. The SNB does rebalance its FX reserves.
3. Partial rebalancing at the aggregate (global) level.
4. Many emerging market countries do not rebalance.

Summary: Additional findings

- Effects are independent of whether the USD appreciates or depreciates.
- When reserves are accumulated the share of USD disproportionally increases.
- Size of the economy matters: smaller economies do not rebalance.

General comments

- Important research question that has been neglected for too long.
- Well-written paper
- Makes use of the great new dataset on reserve composition of Ito-McCauley, 2020.
- Battery of alternative approaches makes results convincing
  - Time-series vs. panel data
  - Control for type of country: AE vs. EME, commodity exporters versus non-commodity exporters
  - Set of control variables
- Paper helps to understand central banks' reserve policies and their global repercussion.

Questions and suggestions: Normative analysis

- Positive analysis: ✓
  The data tell us how central banks manage their reserves in the face of floating exchange rates.
- Normative analysis:
  What should central banks do?
  - Portfolio theory is not helpful.
  - IMF document *Revised Guidelines for Foreign Exchange Reserve Management* (2014) mentions the term *rebalancing rule* only twice.
- What is your hypothesis?

Questions and suggestions: Normative analysis

What should central banks do?

- Important determinant of reserve demand: currency share in import invoicing
- Example: Appreciation of USD
  - Share of imports denominated in USD $\uparrow$
  - Share of USD in reserves $\uparrow$

  $\rightarrow$ no rebalancing required?

Questions and suggestion: Institutional analysis I

Do central banks disclose their rebalancing rule?

- **Botswana**: "The underlying philosophy of currency exposure is that it is not appropriate to modify currency weights in response to short-term exchange rate fluctuations."
- **Canada**: "The Exchange Fund Account (EFA) portfolio must be composed of a minimum of 50 percent U.S. dollars with the rest allocated in euros, and Japanese yen, according to the funding and investment opportunities in each currency."
- **Czech Republic**: "Based on these considerations, the currency composition was set at 73.4 percent for euros and 26.6 percent for U.S. dollars."

Source: IMF (2001), Guidelines for foreign exchange reserve management: accompanying document.

Questions and suggestions: Institutional analysis I

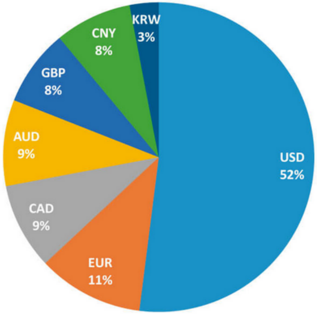

Chart 1: Referential Composition of Currencies in the Investment Portfolio

Some central banks - like the Central Bank of Chile - publish a reference portfolio

Questions and suggestions: Institutional analysis II

Since 2017 part of ECB's reserves is invested in Renminbi.

Role of

- changes in the international role of currencies
- signalling
- geopolitical considerations

Questions and suggestions: Institutional analysis II

- Central banks might imitate the rebalancing strategy of their peers
  - Include the rebalancing coefficient of other countries in the regression
  - *Keeping up with the Jones* effect
  - For the level of reserves: Cheung and Qian, 2009; Cheung and Sengupta, 2011; Cheung, Qian and Remolona, 2019.
- Rebalancing might take place with a lag
  - Include lagged valuation effect

Questions and suggestions

- What is the effect of value changes in reserve assets?

- Example: US FED i $\downarrow$
  - Face value of bond $\uparrow$ and
  - USD depreciates

- Effect on USD share in reserves ambiguous

Questions and suggestions: Minor points

- Dependent variable: share or change in share?
- Very low R2 in the panel regressions (why is between R2 larger than within?)
- What are the global implications of rebalancing/no rebalancing? Exchange rate stability,...

Thank you very much for the nice paper!