

Comments on
“RMB internationalization: A playfield for speculators
or a platform for real economy”

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RMB Internationalization

- RMB internationalization includes:
 - ▶ Free transaction
 - ▶ International reserve currency
- For becoming an international currency, RMB is expected to be,
 - ▶ A major international trade settlement currency
 - ▶ An international investment currency
 - ▶ An international reserve currency
- Relevant authorities have promote the RMB internationalization by focusing on,
 - ▶ Cross border trade settlement
 - ▶ Offshore market
- RMB internationalization progress is expected to be faster than ever before.

RMB: Cross Border Trade Settlement Currency

- The volume of cross border trade settlement in RMB has increased rapidly from the middle of 2009.
- The volume of offshore RMB deposit has also increased rapidly.
- RMB as a settlement currency,
 - ▶ Import trade settlement volume is greater than that of export
 - ▶ Growth rate of RMB deposit is roughly same as the growth rate of import trade settlement in RMB

RMB Bond in Hong Kong (Dim Sum Bond)

- Issuance of RMB bond in Hong Kong has been increasing since around 2010⇒RMB's offshore financial markets are expanding.
 - ▶ Diverse issuing body
 - ★ Ministry of Finance (Mainland)
 - ★ Financial institutions
 - ★ Enterprises in Hong Kong
 - ★ Overseas financial institutions
 - ▶ Short term (1 to 3 year)
 - ★ Upward pressure (appreciation) on RMB
 - ★ Dim sum bond in short term is more attractive
 - ★ Dim sum bond market is still too small to enchant investors (to buy long term RMB bond)

RMB Backflow Channel

- RMB's in-convertibility makes the RMB backflow channels are too narrow.
- Volume of RMB-FDI is much lower than the that of RMB cross border import trade settlement.
- RQFII has been increasing since it was launched in 2011, Utilization of RQFII, however, is still too low.
- RQDII hasn't been taken a full advantage yet.
 - * RODII: RMB Qualified Domestic Institutional Investors
 - * ROFII: RMB Qualified Foreign Institutional Investors

Factors Driving RMB Internationalization

- Cross border trade in RMB (both denomination and settlement) can reduce foreign exchange risk.
- Volume of settlement in RMB is greater than that of denomination in RMB \Rightarrow expectation of RMB appreciation
- Three empirical laws for choosing invoicing currencies
 - ▶ Industrialized countries: export country's currency $>$ import country's currency $>$ third country's currency
 - ▶ Industrialized country with developing country: industrialized country's currency or third country's currency (vehicle currency)
 - ▶ Homogeneous goods are traded in US dollar or vehicle currency; Heterogeneous goods, however, are traded in exporter's currency
- Here, the author wants to find out whether the international trade denominated in RMB contributes to the RMB trade settlement proportion.

Comment 1 (Import and Export Trade Denominated in RMB)

- Export destination should be considered when considering whether import and export trade should be denominated in RMB.
- Complexity of the export products should be taken into account.
 - ▶ Classification in labour intensive industries is too complex \Rightarrow without bargaining power?
 - ▶ Classification in high-tech industries is simple and clear \Rightarrow with bargaining power?
- Processing trade is very important in China's export trade.
 - ▶ But processing trade is excluded?

Comment 2 (RMB Internationalization Arbitrage Index)

- RMB internationalization arbitrage index
 - ▶ What is the definition? (Figure 6. left hand \Rightarrow in percentage? bottom line \Rightarrow year? what does it mean upward or downward?)
- Arbitrage index with currency carry trade
 - ▶ Are there any relationships between Arbitrage index and currency carry trade? (It seems interrelated)
- Sharpe Ratio of RMB to foreign currency
 - ▶ $SR_A = \frac{R_A - R^*}{vol(A)}$ VS. $SR_B = \frac{R_B - R^*}{vol(B)}$
 - ▶ R^* , in general, is the return of risk free benchmark asset.
 - ▶ If $SR_A > SR_B$, investing in A is more efficient than investing in B.
 - ▶ Here, $Sp = \frac{r_{rmb} - r_i^*}{vol(e_{rmb})}$, how to compare the efficiency? (r_i^* is different)

Comment 3 (Empirical Procedure)

Statistical Significance of Adjustment and Cointegration Vectors

- When data series follow unit root process, it is necessary to identify whether cointegration relationships exist over the long run. In this case, a cointegration test can be employed to determine cointegration relationships. The error correction model that is used in the cointegration test is as follows:

$$\Delta X_t = \sum_{k=1}^{p-1} \Gamma_k \Delta X_{t-k} + \Pi X_{t-1} + \varepsilon_t$$

- $\Pi = \alpha\beta'$, α is a matrix in terms of adjustment vectors, β' is a matrix in terms of cointegration vectors, X_{t-1} is a $n \times 1$ vector, and $X_{t-1} = (X_{1,t-1}, X_{2,t-1}, \dots, X_{n,t-1})'$.
- Identifying the statistical significance of adjustment and cointegration vectors.

Comment 3 (cont'd)

- $\Pi X_{t-1} = \alpha \beta' X_{t-1} \Rightarrow \begin{bmatrix} \alpha_{11} & \alpha_{12} \\ \alpha_{21} & \alpha_{22} \\ \alpha_{31} & \alpha_{32} \end{bmatrix} \begin{bmatrix} \beta_{11} & \beta_{21} & \beta_{31} \\ \beta_{12} & \beta_{22} & \beta_{32} \end{bmatrix} \begin{bmatrix} X_{1,t-1} \\ X_{2,t-1} \\ X_{3,t-1} \end{bmatrix}$
- Long-term equilibrium relationship $\Rightarrow \beta_{11} = \beta_{12} = 0$
- Error correction mechanisms based on exogenous factors $\Rightarrow \beta_{11} = \beta_{21} = 0$, but $\beta_{31} = 1$
- weak exogeneity $\Rightarrow \alpha_{11} = \alpha_{12} = 0$
- For more detail, Enders, W., & Hurn, S. (1994). Theory and tests of generalized purchasing power parity: Common trends and real exchange rates in the Pacific Rim. *Review of International Economics*, 2, 179–190.