

Form DE(S→O)

**GSAPS THE SUMMARY OF DOCTORAL THESIS****Essays on China's Exchange Rate Regime and RMB Internationalization**

4010S306-7

Yuming Cui

Chief Advisor: Prof. Shujiro Urata

Exchange rate policy has played a crucial role in the process of China's rapid economic development over the past several decades. Chinese authorities launched the reform of RMB exchange rate regime since July 2005 when the new exchange rate policy was announced. More recently, especially after the Global Financial Crisis of 2007-2008, China's accelerated the exchange rate regime reform and the process of the renminbi (RMB) internationalization. Considering China's rapid economic growth and increasing weight in the world trading system as well as the ongoing global financial system reform triggered by the recent financial crisis, a deeply understanding of China's exchange rate regime and RMB internationalization is increasingly important not only for China, but also for the rest of the world.

This thesis aims to do comprehensive studies on China's exchange rate regime as well as the internationalization of the RMB by conducting empirical studies and policy analysis. There are several research questions about the RMB exchange rate regime and RMB internationalization we attempt to explore: Firstly, we need to understand China's current exchange rate policy and the level of RMB exchange rate. Since the new exchange rate policy which is a managed floating exchange rate regime based on market supply and demand with reference to a basket of currencies was announced by the People's Bank of China (PBoC) in July 2005, the scepticism about if China truly pegged the RMB to a currency basket attracted extensively debates. In addition, it is widely believed that the RMB was significantly undervalued. But recent drastic RMB revaluation implies that we need to find the latest evidence on how much the RMB is misaligned. Secondly, RMB revaluation is likely to impact negatively on China's export industry which is still relatively vulnerable to fluctuations of the RMB exchange rate. We need to find how China's international competitiveness changed compared with ASEAN countries which are regarded as China's competitors in manufacturing sector, when the RMB is being revaluated. Thirdly, in addition to above empirical studies, we believe that policy implication of exchange rate reform of other East Asian countries is valuable for China's ongoing exchange rate regime reform. Their experiences and lessons are important to study. Lastly, China is committed to internationalizing the RMB as a part of its financial system reform. How to promote RMB internationalization under the background of East Asian regional integration will be studied in this research. Also, we will forecast the share of the RMB as a reserve currency in the global monetary system to measure the potential of the RMB as an international currency in the coming decades.

We employ the currency basket inference model developed by Frankel and Wei (1994) to examine the RMB's currency basket:

$$\log RMB(t+s) - \log RMB(t) = c + \sum w(j) [\log X(j, t+s) - \log X(j, t)] \quad (1)$$

where  $w$  is weight of each component currency. We employ the latest data to find the new evidence that how the RMB is pegging to its currency basket and what China's current real exchange rate regime.

There are five major models which could be used to measure a currency's "equilibrium" real exchange rate: the relative purchasing power parity (PPP) approach, the absolute PPP approach, the unit labour costs (ULCs) deflated exchange rate approach, the fundamental equilibrium exchange rate (FEER) approach and the behavioural equilibrium exchange rate (BEER) approach. Based on the China's economic features, we employ the BEER approach (Clark and Macdonald, 1998) and the latest monthly data to examine RMB equilibrium real exchange rate in order to assess RMB misalignment.

$$BEER = F (BSE, ToT, OPENNESS, FR, FDI) \quad (2)$$

where *BSE* is Balassa-Samuelson effect, *ToT* is terms of trade, *OPENNESS* is foreign trade ratio to GDP, *FR* is foreign reserve ratio to GDP, *FDI* is foreign directive investment ratio to GDP.

Under the background of RMB revaluation and rising wages, China's international competitiveness seems to weaken compared with ASEAN countries. The unit labour costs (ULCs) is becoming a more important indicator to measure country's international competitiveness. In this part, we compare the competitiveness between China and ASEAN countries in term of ULCs so as to find if China lost its competitive advantage when the RMB is being revaluated:

$$ULCs = W/y = wL/y \quad (3)$$

where  $w$  is average wages,  $L$  is the number of employees and  $y$  is real GDP.

Apart from empirical studies, policy comparison analysis is also an important part in this research. We review Japan, Korea and Taiwan's experiences on exchange rate reform and draw lessons for China. As an important part of China's financial reform, RMB internationalization has attracted extensively discussion after China accelerated to internationalize the RMB. To differ with previous studies, we analyse RMB internationalization from the perspective of East Asian regional integration. A new determinant of international currency will be tested.

The main findings can be summarized as follows: Firstly, the RMB is in a transitional period shifting from a single currency peg to a currency basket peg regime except for the period of financial crisis. Weight of the US dollar is still the largest in RMB basket, but its importance decreased steadily. Secondly, the RMB has approached its equilibrium level. The RMB was even slightly overvalued in 2012. Thirdly, China lost its international competitiveness compared with ASEAN countries because of RMB appreciation and wages rising. However, some regions of China are still more competitive than ASEAN countries because the ULCs in northeast and northwest China are lower than these in ASEAN countries. Fourthly, based on Japan, Korea and Taiwan's experience on exchange rate regime reform, gradualism approach is better than one-off approach. Follow-up easing monetary and expanding fiscal policies are needed, but timing and scale of policy are equally crucial. Exchange rate regime reform should be seen as an integral component of broad financial system reform. Policies for the long-term economic structure adjustments and industry upgrading need to be prepared. Lastly, China has achieved significant progress in promoting RMB internationalization since 2009, although numerous challenges need to be overcome. East Asia's regional integration lays a broad foundation for China to internationalize the RMB. In turn, an internationalized RMB will play more important role in the process of East Asian regionalization in economic and financial aspects. Therefore, China's authority should promote RMB internationalization not only under framework of China's financial system reform, but also integrate it with the process of East Asian economic and financial integration. The RMB could become an international currency comparable to the US dollar and the euro by 2025, if China removes controls on its capital account and the RMB becomes a fully convertible currency. The chapters of the thesis are organized as follows:

1. Introduction
2. RMB EX Regime: Currency Basket Peg VS. US Dollar Peg
3. RMB "Equilibrium" Real Exchange Rate
4. RMB Revaluation and China's International Competitiveness
5. Lessons Learnt From Japan, Korea and Taiwan's EX regime reform
6. RMB Internationalization
7. Concluding Remarks

**References**

- Frankel, J. and Wei, S., (2007), "Assessing China's Exchange Rate Regime", *Economic Policy*, No. 51, pp. 575-614.
- Clark, P., and MacDonald, R., (1998), "Exchange Rate and Economic Fundamentals: A Methodology Comparison of BEERs and FEERs", *IMF Working Paper* 98/67.
- Chinn, M. and Frankel, J., (2005), "Will the Euro Eventually Surpass the Dollar as Leading International Reserve Currency?", *NBER Working Paper*, No. 11510.