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The evolving renminbi regime and implications for Asian currency stability

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ABSTRACT

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The Chinese authorities described the management of the renminbi after its 2005 unpegging from the US dollar as involving a basket of trading partner currencies. Outside analysts have detected few signs of such management. We find that, in the 2 years from mid-2006 to mid-2008, the renminbi strengthened gradually against trading partners' currencies within a narrow band. In mid-2008, the financial crisis interrupted this experiment and the bilateral renminbi/dollar exchange rate stabilised at 6.8. The 2006–2008 experience suggests that a shared policy of gradual nominal effective appreciation renders East Asian currencies quite stable against one another. Such a shared policy would create favourable conditions for regional monetary cooperation. *J. Japanese Int. Economies* **25** (1) (2011) 23–38. Bank for International Settlements, Representative Office for Asia and the Pacific, 78/F International Financial; Centre Two, 8 Finance Street, Central, Hong Kong.

1. Introduction

In June 2010, the People's Bank of China (PBC) announced a move away from the "special measure" of a dollar peg, confirming market participants′ anticipations of an end to two years of a stable Chinese renminbi/US dollar rate. The implications of this exit for the international monetary system would depend on the subsequent management of the renminbi (RMB) against major currencies. Were it

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merely guided to appreciate against the dollar, the dollar zone would remain about half of the global economy and dollar investments would continue to dominate the minimum-variance portfolio for China's vast foreign exchange reserves. However, were the RMB managed against a basket of currencies, the euro and yen zones would gain and China's minimum-variance portfolio would call for more diversified investment guided by the basket weights, including in regional currencies like the Korean won.[1]

The global implications of the renminbi's prospective management motivates this paper's search for a deeper interpretation of the period of exchange-rate flexibility that was put aside in the global financial crisis in mid-2008. Outside analysts have rejected the Chinese authorities' characterisation of this policy. Our analysis is more sympathetic to it.

The Chinese authorities have spoken of their exchange rate management in terms of a basket of currencies. In July 2005, the PBC announced that the RMB was unpegged from the US dollar and that the currency would be managed "with reference to a basket of currencies". The May 2008 Monetary Policy Report of the PBC (2008) and the 2007 Annual Balance of Payments Report of the State Administration of Foreign Exchange (SAFE, 2008) subsequently reinforced the initial statement. Both highlighted that, although the renminbi had appreciated considerably during 2005–2008 against the dollar, it had been more stable in effective terms, as measured by the BIS effective weights. More generally, Zhou (2009) argued for a more pluralistic international monetary system relying less on any one national currency and more on a currency basket.

Economists outside of China support this asserted basket management of the renminbi neither in principle nor in practice. Citing China's relatively closed economy, McCallum (2006, p. 11) concludes: "In sum, there is little or no reason to believe that a system like that of Singapore's will or has been adopted by China".[2] Using variations on the Frankel and Wei (1994) analysis, Shah et al. (2006) and Ito (2008) find that the RMB has little but idiosyncratic variation against the US dollar, a finding inconsistent with the notion that the RMB is managed against a basket of currencies. Frankel and Wei (2007) find evidence of only a very small weight on regional currencies and took the increase in flexibility to be only potentially important. Frankel (2009) finds a sizeable weight on the euro by mid-2007 but does not give credence to the idea that the renminbi was being managed against a basket of trading partner currencies. Crockett (2008, p. 343) concludes drolly: "if there is a basket, the weight of the US dollar must be pretty close to one in that basket, and therefore it is not nearly as effective as it should be".

We contend that a closer look at the data makes plausible an alternative interpretation that gives credence to the Chinese authorities' account. In particular, the standard analysis at various frequencies, graphical analysis and error-correction modelling all are consistent with the RMB having been managed in 2006–2008 against a basket of currencies (i.e. the BIS effective RMB) that has a direct weight on the dollar of only about one-sixth.

This article proceeds in five further steps. The next section analyses the renminbi's relationship to major currencies following both Haldane and Hall (1991) and Frankel and Wei (1994) over four sub-periods. We find that the RMB responds to the dollar's movements against the euro and yen in the period June 2006–May 2008 and responds even more at lower frequencies, which suggests limitations in these approaches.

Second, we graphically analyse the RMB effective exchange rate and show that in the mid-2006 to mid-2008 period its evolution conformed to market participants' understanding of the Singapore exchange rate system. In particular, the RMB crawled upward against its trading partners' currencies at a moderate rate (2% per annum) and within narrow (±2%) bands.

Third, we formalise the graphical analysis by estimating an error-correction model. Daily movements of the RMB effective exchange rate are driven by movements in the US dollar's effective

[1] For the measurement of the dollar, euro and yen zones, see Kawai and Akiyama (1998) and Kawai (2002) and BIS (2005); for the influence of the numeraire on the optimal choice of currency weights by reserve managers, see Papaioannou, Portes, and Siourounis (2006). An analogy would be the adoption by the Russian authorities of a operational basket consisting of US dollar and euro, with the weight on the euro rising from 35% to 40% in December 2005, to 45% in February 2007 (ECB (2007, pp. 40–41)). Russian official reserve management puts a similarly high weight on European currencies.

[2] McCallum's prediction assumed that China must choose, at this stage, between managing its exchange rate and setting domestic interest rates. Based on the evidence that China's capital controls are binding (Ma and McCauley, 2008), this choice may not yet have to be made.