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Is China's Currency Substantially Undervalued?

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In late September, the US House of Representatives overwhelmingly passed a bill approving retaliatory import duties on Chinese goods because of China's alleged manipulation of its exchange rate. The House claimed that China unfairly holds down the value of its currency, the *renminbi* (RMB), vis-à-vis the dollar in order to boost its exports to the US market.

House Representatives justified their vote by arguing that the continuing increase in Chinese exports to the US (which has fuelled a growing US bilateral trade deficit) has been taking jobs away from US workers. Such an argument has popular appeal because US unemployment remains close to 10%.

In a contrasting move, the US Treasury Department diplomatically declined in late October to release its scheduled semi-annual report on international economic and exchange rate policies, a report that many analysts believed would have substantiated the marked undervaluation of the RMB. Apparently, the US administration has been reluctant to antagonize China before the next meeting of the G-20 to be held 11-12 November. However, tensions between the two countries appear to be on the rise leading up to that meeting.

Meanwhile, the US dollar has sharply depreciated since the summer in expectation that the US Federal Reserve will implement looser monetary policies in order to stave off another recession. Such an abrupt depreciation has put many other countries at a new trade disadvantage and sparked talk of a new international 'currency war'. Intensified exchange-rate instability is an imminent threat.

But the underlying question still remains: is China's currency really undervalued? Most western analysts claim that it is but do they have a sound empirical basis on which make such a charge? Since June, in fact, China has loosened the 'peg' of the RMB to the US dollar and allowed its currency to appreciate by about 3%.

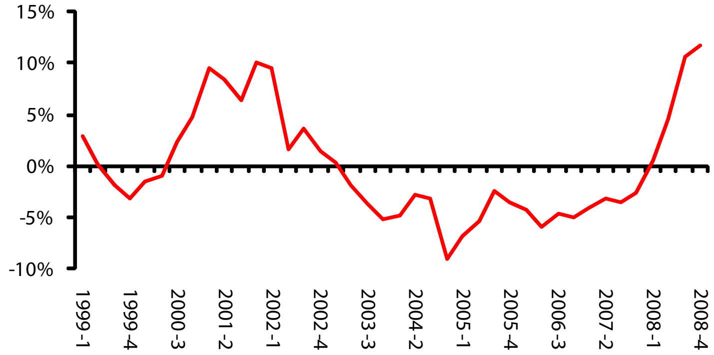
New Findings

I draw on the results of a recent paper (Qin and He 2010) in order to assess the issue of undervaluation. The paper contributes to such an assessment by improving the data set and modelling methods used to determine whether the RMB has indeed been undervalued.

Although the majority of recent studies claim that the RMB is undervalued, the estimated degree of undervaluation varies incredibly widely. The sharply varying results are due, in large part, to the use of different data samples, which are often biased and outdated, and to different modelling approaches. However, none of the results are sound enough to support any definitive conclusions, despite the repeated global outcries about the RMB's supposed undervaluation.

In order to obtain more credible estimates, the Qin and He paper adopts two widely accepted models of the real effective exchange rate (REER), along with the most established econometric modelling approach for generating estimates, and constructs a data set of a quarterly time series from 1994 up to the mid 2009, covering 22 economies that account for roughly 70% of China's total foreign trade.

Figure 1: RMB vis-à-vis currencies of 22 trading partners (percentage misalignment)

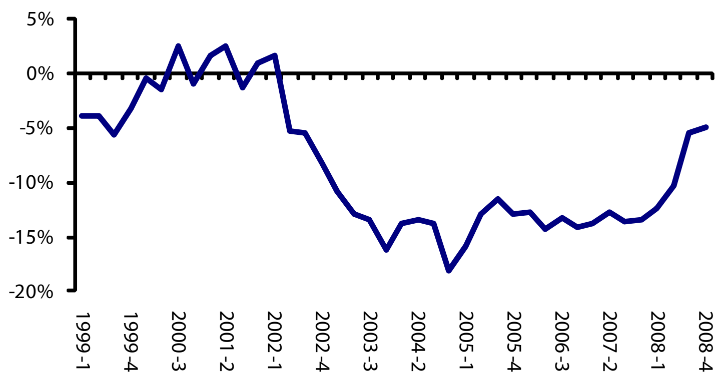


Source: Qin and He, 2010

What are the key findings of the paper? First, we estimate the value of the RMB vis-à-vis the REER of a multilateral currency basket of the 22 economies (see Figure 1). Such an approach indicates that the RMB was undervalued during the early to mid 2000s but this misalignment has disappeared since the 2008 global recession. Note that Figure 1 shows a misalignment period of undervaluation from early 2003 to the end of 2007, with the lowest point of a -9% misalignment in late 2004.

But the length and the magnitude of undervalued misalignment increase substantially when the reference currency basket is shrunk to only the US dollar and the euro, as shown in Figure 2. In particular, the RMB remains moderately undervalued in spite of the impact of the current global recession.

Figure 2: RMB vis-à-vis the US$ and Euro (percentage misalignment)



Source: Qin and He, 2010

Selecting the small sample of the US and the Eurozone is very misleading, however. They account for only roughly one quarter of China's total trade and their share is on the decrease. Moreover, the undervaluation of the RMB against the dollar and the euro could equally be interpreted as *overvaluation* of the latter two currencies.

Which Currency is Misaligned?

The latter assessment becomes more credible when we take into consideration the difference between the two misalignment series depicted in Figures 1 and 2. This difference strongly suggests overvaluation of the dollar and the euro vis-à-vis the currencies of all the non-Eurozone economies included in our 22-economy basket. In other words, the present misalignment is likely due more to overvaluation of the dollar and the euro than to undervaluation of the RMB when we compare the value of the RMB to a broader and much more representative sample of the world's currencies.

Indeed, our conclusion has been supported by the devaluation of the euro in April-May 2010 (amounting to about 5%), followed by the latest dollar depreciation (of over 5% from July to September 2010). These estimates are based on comparing the value of the dollar and the euro to the Special Drawing Rights of the IMF. These recent trends tend to strengthen our findings that the widespread calls for greater appreciation of China's currency as the chief means to restore global trade balances are misplaced.

Admittedly, it might be advisable for China to progressively delink the RMB from its loose peg to the US dollar and take into account a larger basket of currencies in determining the RMB's value. But even if China sharply decoupled the RMB from the dollar in the near future, this move would not necessarily lead to a significant RMB appreciation. There is a greater likelihood of a further depreciation of dollar since China's peg of the RMB to the dollar contributes to keeping the latter overvalued. Such drastic changes would only worsen the current state of heightened global exchange-rate instability.

Reference:

Qin, Duo and He, Xinhua (2010). "Is the Chinese currency so substantially misaligned as to warrant further appreciation?" *Economics Discussion Papers,* 2010-8, Kiel Institute for the World Economy.