## Invoicing Currency in International Trade: An Empirical Investigation and Some Implications for the Renminbi

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April 2014

## Summary

There are three major functions of an international currency: a unit of account (trade invoicing and denomination of financial products, exchange rate pegging), a medium of exchange (settlement of trade and financial transactions, intervention in the foreign exchange market), and a store of value (saving, reserve currency). To play the role of a unit of account, an international currency must be a currency widely used to invoice cross-border trade transactions. Knowing the potential of a currency as an invoicing currency also sheds light on the extent to which it could be used as an investment currency or a reserve currency, as the three functions are related.

The renminbi has been increasingly used outside of China, especially in the Asia-Pacific region. Restrictions against the use of the renminbi in current account transactions were removed in the aftermath of the global financial crisis of 2008. There has been strong growth in China's cross-border trade settled in the renminbi, but the use of the renminbi as an invoicing currency remains very limited.

This paper investigates the determinants of the use of a currency in trade invoicing and evaluates the potential of the renminbi for the denomination of cross-border transactions in the Asia-Pacific region. In particular, we develop a simple model and establish the evidence showing that there is a convex relationship between the invoicing share of a currency and the economic size of its issuing country because of a coalescing effect and thick market externalities. We use the ratio of the foreign exchange turnover share of a currency to the GDP share of its issuing country as a proxy for the size of thick market externalities, which we argue reflects the degree of capital account openness, financial development, and exchange rate stability of a country. This ratio is very small for the renminbi compared with that for the established international currencies. Our quantitative analysis suggests that the renminbi can be a major invoicing currency in the region only if China sufficiently opens up its capital account and liberalizes its financial sector. We also draw a parallel between the renminbi and the euro, and forecast the invoicing share of the renminbi in the Asia-Pacific region were the renminbi market to attain the same degree of market thickness as the euro.