

Estimating currency composition of China's foreign exchange reserves

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Abstract

This study explores the latent currency composition of China's foreign exchange reserves during 2003Q1 to 2015Q1 through the Constrained Least Square model with bounds conditions. The empirical results present a mixed picture of the diversification debate. During the European sovereign debt crisis, the national credit of some developed economic entities degraded repeatedly. The loss of China's foreign exchange reserves due to the fluctuations in exchange rate and asset yields become inevitable. We decompose the foreign reserve change into two parts: net purchases of foreign reserves and non-purchase changes of foreign reserves, by virtue of Balance of Payments and International Investment Position. The results show that China maintained a relatively stable currency composition during the period from 2003 to 2009, but then decreased the euro share and meanwhile increased the share of other currencies such as Japanese yen, Australian dollar, and Canadian dollar. That is, China tried to diversify its reserves out of euro into other currencies to reduce the negative effect of sovereign debt crisis. Our results suggest that China still took the U.S. dollar as the dominant reserve currency, and began to pay more attention to its major trading countries' currencies. As of 2015Q1, China held about 63.6% of its reserves in the U.S. dollar, 19.6% in the euro, 3.4% in the Japanese yen, 5% in the pound sterling, 2.2% in the Canadian dollar, 2.0% in the Australian dollar and 0.1% in the Swiss francs.

Key words: Currency composition, Net purchase of foreign reserve, Non-purchase of Foreign reserve