The Optimal Currency Basket with Input Currency and Output Currency

Kang Shi
The Chinese University of Hong Kong
Hong Kong Institute for Monetary Research

and

Juanyi Xu
Hong Kong University of Science and Technology
Hong Kong Institute for Monetary Research

September 2008

Summary
This paper explores the determination of the optimal currency basket in a small open economy general equilibrium model with sticky prices. In contrast to traditional literature, we focus on an economy with vertical trade, where one currency is used as the invoicing currency of imported intermediate goods and is called the input currency, while the other currency is used for the invoicing of exported finished goods and is called the output currency. In such an economy, we find that in the optimal currency basket the weight between the input currency and the output currency depends critically on the structure of vertical trade. Moreover, we find that in general, from a welfare perspective, if a country decides to choose a single-currency peg, then an output currency peg tends to dominate an input currency peg except when regional rivals tend to peg to the input currency also. In a sense, our paper provides a case for the Chinese RMB peg in East Asian economies, given the importance of the RMB as an input currency. However, the emergence of RMB peg in these economies still relies on regional policy coordination. In short, this paper extends the recent literature on optimal exchange rate policy in welfare based models towards an analysis of the optimal currency basket. It also provides strong policy implication for many Asian economies, and particularly for small entrepot economies such as Hong Kong or Singapore.