“Is the rupee fairly valued?”

Martin Kessler and Arvind Subramanian wrote an article titled “Is the rupee fairly valued?” in Business Standard, a few months back (June 22, 2014). As I am currently working on a book on models in quantitative finance, their assumptions and limitations, I was particularly interested in the model used by Kessler and Subramanian in concluding that, on their calculations based on India’s purchasing power parity (PPP) GDP, the rupee is **undervalued** by 30%. The authors have considered the increase in per capita GDP as a proxy for productivity increases which, along with domestic inflation, would determine the competitiveness of the tradeables sector. Since Dr. Subramanian has recently been appointed as chief economic adviser, it is important to look at the arguments in some detail.

For one thing, the concept of GDP as a measure of the domestic output of an economy itself suffers from shortcomings: for example, it excludes all unpaid work, e.g. cooking, cleaning and washing at home. GDP at PPP exchange rates (as distinct from the market exchange rates), while useful as a measure of international comparisons, particularly of per capita incomes, has more serious limitations. For one thing, the PPP adjustment is very sensitive to the methodology and model used. Again, since it is based on comparing the values (in domestic currency) of an identical basket of goods and services, the implicit assumption is that all countries consume the same basket of goods and services! Ha-Joon Chang, a professor in Cambridge University, in his recent book, *Economics: the User’s Guide,* terms this assumption as “heroic”. He quotes an example from the World Bank data: it seems in 2007, the World Bank reduced China’s PPP income per capita by 44%, and increased Singapore’s by 53%, almost overnight!

In an earlier article on PPP based estimates of renminbi undervaluation (16th April 2010), Dr. Subramanian had estimated that the Chinese currency is also undervalued by around 30% (he arrived at this estimate of undervaluation by averaging four different estimates, also based on PPP, ranging from 14.5 to 47.4!). In other words, the currencies of both China and India are undervalued very significantly, and almost equally. But the empirical evidence says something else: China has a very large surplus in its external account (it has come down in the last few years but is still large), while India has a current account deficit of the order of 2% of GDP. As I have argued earlier as well, even this significantly underestimates the output gap created by the external sector of the domestic economy: in our case, inward remittances, as a proportion of GDP are 4% plus. Much of this money is remitted for maintenance of family establishments here, and the quantum has little to do with the exchange rate although conventional accounting includes remittances in current earnings. Surely, the adjusted output gap in the tradeables sector is not compatible with the kind of undervaluation of the domestic currency which Dr. Subramanian has estimated in the Business Standard article. Admittedly, there are other factors like infrastructure deficit etc. which lead to the output gap, but surely it is also an indicator of an **overvalued** exchange rate!

The Reserve Bank's own estimates of the bilateral trade and export based indices of the rupee's external value suggest an **overvaluation**, respectively of 12 and 18%, over 2013-14. To be sure, in my view, there are several lacunae in the model used by the central bank. Some of the more important ones are:

⇒ The data exclude services which are an important element of our external account;

⇒ The bilateral trade weights ignore competition from and in third countries; and

⇒ Inflation index used is the consumer price index. On first principles, surely what we need is an estimate of the inflation in the tradeables sector, not inflation across the economy. No such data is available either in respect of India or other countries.

Arguably, a better weighting system might be to use invoicing currencies – for example, if, say, 80% of our external trade in both goods and services is invoiced in the US dollar, that currency should have an 80% weight. The reason is that surely the buyer compares the prices of non-differentiated goods and services from different countries in a common currency, namely the invoicing currency. Also, we need to have a better idea of the lags between exchange rate changes and their impact on trade.

In an earlier article (28th November 2008), Dr. Subramanian had argued that, for India, a level of reserves of $ 1 trillion, by way of self-insurance, "*would not seem excessive*". At the end of fiscal 2007-08, i.e. the latest number available before the article, our net international investment position was $ 49 bn (negative). The latest number is as high as $ 350 bn: indeed, we compare quite well with the two Anglo Saxon economies on the extent of the net external liabilities as a percentage of GDP. In the same article, Dr. Subramanian had strongly recommended a "*mercantilist slant to exchange rate policy and caution about capital account opening"* – mercantilist means aimed at external surpluses. How long can we keep depending on external portfolio capital?

Our Prime Minister has asked ministries to curb "inessential imports" (Indian Express, October 24); the optimum way of achieving this is to have an exchange rate which makes domestic output cheaper than imports. This will be far more useful than administrative measures.

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