

Comments

It is a great honor for me to comment on the paper of an economist of great international standing as Shaghil Ahmed. Ahmed and his co-authors really deserve an appreciation on conducting such an important empirical research, which is directly relevant to the theme of the conference and the needs of a central bank of a country like Pakistan.

They have used vector autoregression methodology to examine the extent to which changes in output, inflation and real exchange rate in Pakistan are driven by the terms of trade, foreign output and the workers' remittances. Foreign output shocks lead to a real depreciation of rupee but their spillover effects on output are rather modest. By contrast positive shocks to workers' remittances lead to a significant increase in domestic output and a substantial real exchange rate appreciation but a very little response on domestic prices. Surprisingly, the terms of trade shocks appear to have very little effect on Pakistan's real exchange rate, domestic output and consumer prices.

They have also examined and found that exchange rate depreciations are contractionary in Pakistan by studying the channels of transmission of real exchange rate change on economy while examining separately the effects on domestic absorption, exports and imports.

More importantly they have deliberated upon the implications of their result for choice of exchange rate regime for Pakistan. Their results are against the case of fixed exchange rate regime because Pakistan does not share common shocks with its major trading partners and that it would not reap much gain in credibility of anti-inflationary policy. For the case of flexible exchange rate regime their conclusion is that due to large contractionary effect of real exchange rate depreciation on domestic demand greater exchange rate stability could destabilize the aggregate output.

If we look at the paper it is really an attractive exercise. However, I have only a few comments:

- 1) This study is a 6 variable VAR model with 29 observations only and thus there is small degree of freedom.
- 2) The authors have discussed that the volatility of the output price and real exchange rate shocks have increased since 1990 which one can attribute to the policy changes that took place in the 1990s. Thus for their empirical model

estimated over the sample including the policy shift the parameter instability is a potential problem.

- 3) While discussing the impulse response of a shock to foreign output, the authors have not discussed the insignificant effect to consumer prices in Pakistan (which is clear from Figure 4). This needs a discussion particularly in the presence of significant response of real exchange rate, which depreciates and there is a pass-through impact to price in response to the real exchange rate depreciation.
- 4) The impact of shock to workers' remittances is not as great as $\frac{3}{4}$ of a percentage point in first year as discussed in the paper. However, the graph shows it is rather less.
- 5) There is one thing discussed in the paper while explaining the fall in domestic demand after real currency depreciation that *likely* the fall in domestic demand is driven by the special problems of developing countries such as currency mismatches on domestic balance sheet, volatile international capital flows and lack of credibility of macroeconomic policies. To me there is need to see how likely this is in the context of Pakistan after looking at the proportion of liabilities side of balance sheet in foreign currency and the proportion of international capital being attracted by us.
- 6) Most importantly, I think it would have been better, for studying the choice of regime, if the authors used nominal exchange rate instead of real particularly because it is nominal exchange rate that we talk about fixing. There is no idea of fixing the real exchange rate. It is always and everywhere flexible.

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