

Asymmetric Impact of Exchange Rate Shocks

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There has been an ongoing debate on the appropriate exchange rate policy in developing countries. Frankel (2000) considers the range from currency unions through a whole intermediate spectrum of pre-determined crawls and pegs to free floats. He concludes that most countries choose exchange rate regimes in the intermediate range but sadly these have often failed and sometimes spectacularly too. McKinnon (2000) gives reasons why in practice pegging the rate could be superior to a pure float especially when due note is taken of the consequences of volatility on account of capital flows. He, however, cautions that there can be situations of macro policy inconsistency that could lead to a "bad peg" and an over-borrowing syndrome.

Kadil points out that the debate on the appropriate exchange rate regime has focused on the degree of fluctuations in the exchange rate in the face of internal and external shocks. Moreover, exchange rate fluctuations are likely, in turn, to determine economic performance. Consequently, in judging the desirability of exchange rate fluctuations it becomes necessary to evaluate their effects on output growth and price inflation. Demand and supply channels determine these effects. Currency depreciation increases net exports demand as well as the costs of production. Similarly currency appreciation decreases net export demand and the costs of production. The combined effects of demand and supply channels determine the net results of exchange rate fluctuations on real output and domestic prices. Unanticipated currency fluctuations determine aggregate demand through exports, imports, and the demand for money; and determine aggregate supply through the cost of imported intermediate goods.

Anticipated movements in the real effective exchange rate – the real domestic price of a composite of foreign currency for major trading partners – is assumed to vary with agents' observations of macro fundamentals, determining changes in the exchange rate over time. An unanticipated depreciation increases net exports and money demand and decreases output

supplied (domestic value added). Similarly, an unanticipated appreciation decreases net exports and money demand and increases the output supplied. The combined effects of demand and supply channels may establish asymmetry in the face of positive (depreciation) and negative (appreciation) shocks to the exchange rate.

The empirical outcomes showed evidence of a significant contraction in output growth for the majority (15 of 22) of developing countries studied. Consistent with the dominant negative effect of exchange rate shocks in the model, the net contribution of these shocks is negative, decreasing output growth, on average. The largest reduction is – constant in Ghana where the annual real output growth is expected to decrease, on average, by – 2.8 percent given the variability of exchange rate shocks that equals 0.45.

Again, consistent with the dominant inflationary effect of exchange rate shocks in the model, the net contribution of these shocks was increasing price inflation, on average, in the majority of countries (14 of 22). The largest increase is evident in Ghana where annual price inflation is expected to increase, on average, by 3.4 percent given variability of exchange rate shocks that equaled 0.45 over time.

The evidence of output contraction coupled with price inflation in the face of unanticipated currency appreciation suggests that the demand-side channels dominate supply-side channels (cheaper cost of imported inputs) – determining the effects of unanticipated currency appreciation. The reduction in net exports determines output contraction. Nonetheless, agents' desire to hold less money (capitalize on currency appreciation) contributes to price inflation. Higher variability of exchange rate fluctuations around its anticipated value generates adverse effects on economic performance. These effects are evidenced by output contraction and price inflation in the face of currency fluctuation (both depreciation and appreciation). Given asymmetry, the variability of unanticipated currency fluctuations decreases real output growth and increases inflation, on average, in the majority of countries studied.

References

Frankel, Jeffrey A. (2000),

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