Is Sterilized Intervention Effective? New International Evidence

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Summary

Doubts persist about the advisability of a policy of foreign exchange intervention. Generally, the literature reaches no firm conclusions about the ability of such policies to persistently influence the exchange rate. Although intervention takes on many forms, it is commonly used to refer to the purchase or sale of foreign currencies which are then sterilized. This is intended to leave the domestic money supply unaffected. Whereas unsterilized interventions clearly influence exchange rates, there is no broad consensus on the effectiveness of sterilized interventions.

In spite of a growing preference for floating exchange rate regimes, intermediate type regimes such as the managed float or the crawling peg remain popular, particularly in emerging market countries, a reflection perhaps of a 'fear of floating'.

In this paper we propose a way of evaluating the impact of intervention on exchange rates that is applicable to a wide variety of exchange rate regimes. We measure the effectiveness of sterilized interventions by quantifying the proportion of exchange market pressure that is relieved through intervention. This requires, first, an estimate of the change in the exchange rate assuming there is no foreign exchange intervention, and the policy is correctly anticipated by economic agents. Obtaining such an estimate entails carrying out a counterfactual experiment that asks: what would have happened to the exchange rate under the hypothetical 'do no harm' policy of no intervention? Next, given the policy actually implemented, we estimate the impact of intervention on the exchange rate. The counterfactual refers to *ex ante* exchange market pressure, while the impact of the actual intervention enables us to obtain an estimate of *ex post* exchange market pressure. The difference between the two, when converted into index form, is defined as the Policy Induced Change in Expectations (PICE). This index provides a quantitative measure of the effectiveness of intervention. The model required to estimate the amount of exchange rate pressure, ex ante and ex post, is of the New Keynesian variety.

We construct measures of the effectiveness of exchange market intervention for 12 emerging markets in Asia, Europe, Latin and South America, as well as for four developed economies, namely Hong Kong, Korea, Japan, and Singapore. Asian economies, and emerging market economies more generally, are fertile ground for our approach for several reasons. First, the Asian crisis of 1997-1998, as well as similar financial crises that have afflicted other parts of the world (e.g., the "Tequila" crisis of 1994-1995), may have been predictable in hindsight, given the economic and financial policies then in place, but policy makers were clearly caught by surprise by the timing of such events

Briefly, we find that sterilized interventions have been effective in emerging markets, in the sense of producing persistent changes in the exchange rate. Nevertheless, there are also indications that this success has come at a time of large increases in reserves holdings of foreign exchange. Finally, there is also some evidence that *ex ante* exchange market pressure tends to be lower the closer the exchange rate regime is to a pure float.