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RULES FOR INTERVENTION WITHOUT FIXED PARITIES

by Michael P. Dooley and Jeffrey R. Shafer*

This paper describes a set of rules for exchange market intervention in a managed float system. The rules would apply to a world that began with and maintained a balanced distribution of reserve assets and had limited accumulations of foreign currency reserves. The rules proposed are intended to give wide discretion to central banks and constrain this discretion only to the extent necessary to avoid conflicting intervention transactions, and intervention by one country effectively to peg the currency of another. The rules can be written as a natural extension of a multi-currency intervention system, a key currency intervention system, or a basket of currencies intervention system in a regime of fixed exchange rates.

INTERVENTION OBJECTIVES WITH A FIXED EXCHANGE RATE

When a country is maintaining fixed parities, it is pursuing the objective of maintaining the level of its exchange rate within a specified margin of those parities. If each country were to independently choose a set of parities, they would not in general be consistent. Consistency in actual practice is enforced by permitting each country to choose its value in terms of only one other standard and requiring that at least one currency either not freely choose a parity or choose a parity with respect to a non-currency standard (e.g., gold). The reconciliation process is implicit in the parity choosing process. Once parities are chosen, intervention at margins will never be inconsistent or contradictory.

* The views expressed herein are solely those of the authors and do not necessarily represent the views of the Federal Reserve System.

INTERVENTION OBJECTIVES WITH A FLOATING EXCHANGE RATE

When a country is not maintaining fixed parities, it is not openly pursuing an objective of achieving any specific level for its exchange rate. It is inappropriate for such countries to pursue target levels for their exchange rates by means of intervention since the likelihood that there would be inconsistent exchange rate targets is great. However, countries with floating exchange rates might have a reasonable objective in smoothing out volatile changes in their exchange rates. Rules for the conduct of a float should permit the achievement of this objective.

The approach that these considerations suggest is to permit intervention to moderate the rate of change in a currency's value if it exceeds a specified magnitude (what measures of value might be used and what time horizons are appropriate are considered below). Such a rule balances one country's right to have its exchange rate move in response to market forces over time with another country's right to smooth out fluctuations in its exchange rate.

OLD PROBLEMS

In formulating rules for floating we must deal with many of the problems that were encountered during the C-20 negotiations in trying to formulate a new intervention system for a "fixed but adjustable" parity system.

First, we must decide what currency in the system should be passive. Just as not all countries can have independent levels of exchange rates, not all countries can have independent rates of change in their exchange rates.

Should the role of passive country be assumed by the country issuing the intervention currency, or should the country playing that role be determined by circumstances as it is in a multi-currency intervention (MCI) system?

Second, a perceived problem with the Bretton Woods system was that the U.S. dollar exchange rate received exaggerated importance because intervention rules were expressed in terms of dollar rates. In a floating rate system we might have the same problem. Is the rate of change in the U.S. dollar value of foreign currencies the proper basis for intervention rules? Or should all cross exchange rates be considered in determining rules for intervention?

Third, after the criterion for intervention has been decided upon, we must decide in what currencies the intervention should be conducted. This problem is of considerable importance in a managed float.

Fourth, it is unlikely that any scheme will satisfy the preferences of all countries. Thus, rules for floating must be able to accommodate blocs of currencies with fixed margins of fluctuation as well as floating currencies. Any rules to deal with countries that have floating currencies must be compatible with rules for countries exercising other options.

ALTERNATIVE SPECIFICATIONS OF RULES FOR FLOATING

In the following sections we present specific proposals for rules for floating. The first specification is a multi-currency intervention system for floating currencies. We give this case fullest treatment because we have serious reservations, which we discuss, about the desirability of rules for floating based on key currency exchange rates and/or key

currency intervention. The second case considered is a key currency intervention scheme. Finally we briefly outline a basket of currencies intervention scheme.

MULTI-CURRENCY RULES FOR THE CONDUCT OF A FLOAT

For a currency that is floating, a minimum rate of appreciation and depreciation would be defined with respect to other currencies that were floating and with respect to groups of currencies that were maintaining fixed parities with respect to each other. If a country's exchange rates changed by less than the minimum amount, no intervention would be permitted. If a country's exchange rate changed by at least a minimum amount with respect to any other currency or group of currencies, a country would be permitted to intervene to reduce the change. A country could not reduce the change below the minimum tolerance and it would not be obliged to intervene at all. If a country were eligible and wished to sell its own currency, it would be expected to acquire the currency of the country with respect to which it had the greatest appreciation. If a country were eligible and wished to buy its own currency, it would be expected to sell the currency with respect to which it had the greatest depreciation.

Rates of appreciation would be considered only for that currency of a group of currencies with fixed intervention margins (e.g., the snake that was above its central or parity rate with respect to all other currencies in the group. Rates of depreciation would be computed only for that currency of a group of currencies with fixed margins that was below its central or parity rate with respect to all other group currencies. This treatment of

currencies with fixed parities will insure that intervention by a floating currency will have the effect of keeping the fixed parity group together.

This intervention rule is consistent with a variety of settlement provisions. However, a system without any mandatory settlement provision seems most sensible. If intervention is for the purpose of smoothing short run fluctuations and if it is wisely undertaken, the stabilization account will show a profit. It would therefore be appropriate for the central bank that makes the decision to intervene to bear the exchange risk. Foreign currency balances acquired through central bank intervention to slow the appreciation of its currency should not be eligible for demand conversion into primary assets. Foreign currencies sold through central bank intervention to slow the depreciation of a currency should be obtained in exchange for primary assets, through swap agreements, or from the general account of the IMF at the option of the country whose currency is supplied. Any country's currency that is eligible for use in intervention under the rules outlined above would be made available on demand under one of these options.

The conditions under which a central bank could unwind its position in a given currency would have to be less stringent than the conditions under which intervention could be initiated. For example, suppose that country A intervened to purchase country B's currency after currency B had depreciated against currency A by more than the one half per cent per day threshold. The balances of B's currency held by A would be quite illiquid if A had to wait until currency B appreciated by more than one half per cent per day before A could sell these balances of currency B to the market.

tolerances calculated over longer periods, such as the rate one-month earlier plus or minus a specified percentage would be feasible. On the other hand, a change as great as 10.0 per cent in one month would of necessity be tolerated only if the rate were to change in the same direction by the full tolerance of 0.5 per cent on every trading day in the month. A complete absence of reversals, or even days of only modest decline, would indicate a rapid change in the fundamental equilibrium exchange rate. Under these conditions a rapid adjustment in the exchange rate would unlikely be reversed in the near term and should probably not be resisted by intervention. Additional weekly and monthly tolerance would seem to be refinements of marginal benefit.

RULES FOR INTERVENTION IN A KEY CURRENCY

In a key currency intervention system a country would compute minimum tolerances for exchange rate changes only with respect to the appropriate center currency. Any intervention would be in that currency. The center currency country would also be permitted to intervene in any currency that appreciated or depreciated by more than the minimum tolerance with respect to its currency. In other respects such a system could operate in the same manner as the MCI system discussed above.

The primary difficulty with this type of system is that key currency intervention generates additional changes in the exchange rate between the key currency and currencies other than the currency of the country which is initiating the intervention.^{1/} Moreover, these induced changes can

^{1/} This problem is treated at length in the context of fixed parities in M. Dooley, "A Note on the Undesirability of Wide Intervention Bands for Key Currencies" November 16, 1973.

be quite large in a floating system before offsetting central bank intervention is permitted by the intervention rules.

A key currency country would not have a totally passive role in a floating system as in a key currency fixed parity system. If the dollar exchange rate with any other currency moved more than the minimum tolerance, either the U.S. or the other country could initiate intervention. If, for example, sterling depreciated by more than the minimum permitted, the United States could buy sterling against dollars in the exchange market. If sterling appreciated at a rate exceeding the minimum permitted, the United States could borrow sterling (or sell assets to the Bank of England for sterling) and sell sterling against dollars in the market.

RULES FOR INTERVENTION IN A BASKET OF CURRENCIES

Intervention could take place with fixed proportions of other currencies instead of one currency. This approach would spread the impact of intervention over a number of currencies. Exchange markets could accommodate themselves to trading in baskets of currencies with little practical difficulty. Intervention would take place at a country's option once a minimum tolerance defined on a standard weighted average of exchange rates was passed. The intervention would be in a basket of currencies with the same weights.

CONCLUSIONS

The intervention arrangements described in this paper have several desirable features. First, they provide an explicit definition of non-permissible intervention and thus serve to minimize the probability of

conflicting exchange market intervention. Second, these arrangements do not force central banks to intervene at all and therefore circumstances will not arise in which a central bank is obligated to defend an exchange rate. Third, central banks would not need to announce estimates of equilibrium exchange rates and risk becoming politically committed to them. Finally the proposed arrangements are flexible in that they are compatible with various settlement arrangements and they are compatible with blocs of countries whose currencies fluctuate within fixed bands.