ECONOMIC COMMENTARY

Target Zones for Exchange Rates?
by Owen F. Humpe and Nicholas V. Karamouzis

In recent years, growing dissatisfaction with the levels and the volatility of dollar exchange rates has led to calls for greater coordination of economic policies among nations and for an investigation into alternative exchange-rate systems. A number of economists and policymakers, for example, have advocated limiting the fluctuations of the dollar with a target-zone arrangement for exchange rates. Under such a proposal, countries would establish central exchange-rate values for their currencies and keep the actual exchange rates within a specific margin of the central rates.

For instance, if Germany, Japan, and the United States set the central rates between 150 yen to the dollar and 2.1 marks to the dollar, and set the permissible bands around the central rate at 10 percent, then these countries would keep the actual yen-dollar exchange rate between 142.5 and 157.5 yen to the dollar and would keep the actual mark-dollar rate between 1.90 and 2.25 marks to the dollar.

Specific proposals about target zones differ with respect to how the central rates are chosen and with respect to the width and rigidity of the margins. All proposals, however, seem to share the concern that a target-zone system will improve the functioning of the international monetary system. In this Economic Commentary, the establishment of target zones presents several conceptual and practical problems, and that such a system might not represent the best policy choice for a large country like the United States.

Why Target Zones? Since the adoption of floating exchange rates in March 1973, exchange rates have been more volatile than under the fixed-exchange-rate system that existed after World War II as a result of the 1944 Bretton Woods Agreement, and have demonstrated a tendency for large cumulative deviations from so-called “equilibrium” values. Critics of floating exchange rates argue that the excessive volatility and cumulative movements of exchange rates impose significant economic costs on the United States and on her trading partners.

Exchange-rate volatility, according to proponents of target zones, disrupts international trade and investment by increasing uncertainty about prices and profits. Individuals engaged in international commerce must expend resources to hedge against foreign-exchange risk or reduce their involvement in international trade. Persistent deviations of exchange rates from equilibrium values alter relative prices among countries with the consequence of changing consumption, production, and investment. Critics of floating exchange rates cite the record appreciations of the dollar between 1980 and 1985 as a major factor in the slow recovery of American agriculture, and of U.S. tradeable-goods industries.

A target-zone system could provide the basis for internationally agreed-upon management of exchange rates. Target zones, by limiting exchange-rate volatility, offer international traders a stable anchor on which to base their operations and to compare profits, and to plan investment and trade across countries. The establishment of a set of target exchange rates, and the greater exchange-rate stability is also considered a way to reduce distortions in relative prices across countries, thus minimizing costs and inefficient shifts in resources.

Moreover, proponents contend that target zones would offer greater flexibility than the old fixed-rate Bretton Woods system. The zones would be wider, and they could be adjusted frequently to offset changes in inflation differentials. Thus, advocates of such systems believe that target zones combine the best features of both the fixed and flexible exchange rates.

Mechanics of Target Zones If countries are to establish and maintain target zones, they must agree on a definition of the central rates, on the size of the bands around the central rates, on a mechanism for deciding the target rates, and on a means for adjusting the central rate. Each of these concerns presents special problems. The central rates chosen for a target-zone system should reflect, as closely as possible, the equilibrium value of the exchange rate. Unfortunately, economists agree neither on what determines equilibrium exchange rates nor on a
Japan continues to run a huge trade deficit in the equilibrium rate. Many exchange-rate differentials conflict with the equilibrium exchange rates associated with inflation differentials also can alter the equilibrium exchange rate. Productivity differentials, technology changes, changes in tastes, and changes in trade laws can all change the relationship between relative price changes among countries and exchange-rate adjustments. In a target-zone system, therefore, policymakers have to identify the appropriate change in exchange rates to reflect them. This implies that periodic, discrete adjustment practices might not be necessary in a target-zone system using purchasing power parity to define the central rates. Purchasing power parity relies on inflation differentials to define equilibrium exchange rates and on traded-goods arbitrage to force exchange-rate adjustments. Recent experience has shown, however, that capital flows can dominate trade flows and dictate trends in exchange rates for long periods of time. This is especially true for a country like the United States, which is both well-developed, highly liquid capital markets. Between 1962 and 1984, for example, the United States experienced a sizeable trade deficit, and hence a dollar depreciation. If the current exchange-rate regime continues, the production of American goods. In the absence of such a depreciation, U.S. goods would become more expensive relative to Japanese goods. Trade would shift away from American products towards Japanese products, resulting in an increase in supplies of dollars even, actually appreciated through February 1985 to levels well above that predicted by purchasing power parity, largely because of changes in tastes. This sharp deviation from purchasing power parity, however, was not immediately reflected in the export demand and demand for credit in the United States. These credit demands, associated with large federal deficits and better investment opportunities, exceeded domestic savings; thus, real interest rates rose. Moreover, it appears that a flow of foreign savings into dollar-denominated assets; that is, it reflected an efficient allocation of international resources as capital moves into the country with the highest rate of return. Under a target-zone system, however, if federal deficit reductions are not acceptable, policymakers would have to accommodate the increased federal and private credit demands by increasing the money supply growth rate and interest rates to help generate inflation. Between 1980 and 1985, floating exchange rates enabled the U.S. to avoid these international policy on eliminating inflation. It is not therefore, that target zones would be more likely to be manipulated. A second difficulty in establishing a viable system of target zones is the acceptance of bands around the central exchange-rate targets. The bands must be close enough to provide certainty about the exchange rate, but wide enough to provide some monetary policy independence. If the bands are too narrow and countries are not willing to adjust domestic policies sufficiently, farming exchange-rate changes will be necessary. However, since exchange-rate changes often reflect changes in the economic conditions of the participant countries, negotiations about the need for a change and about the necessary extent of a change in the central rates could take time. This could contribute to exchange-rate uncertainty and add to the cost of financing the current deficit. With the spot exchange rate against either the upper or the lower exchange-rate band, speculators know the direction of the adjustment in the central exchange rate, and the resulting speculation creates a real cause for a change in the central rates. Moreover, if the adjustment in the central rate were larger than the width of the bands, speculators would face no risk of loss in buying or selling at the rate dictated by the bands. Most observers seem to choose bands of approximately 10 percent to 15 percent. As will be discussed later, it is unlikely that the administration would cut military spending or raise taxes because of the dollar's exchange rate. The appreciation would merely mean that the dollar, but monetary policy at this time was primarily aimed at achieving the goal of reducing inflation and quelling inflation expectations. We would have had to accommodate a major shift in our policy stance towards higher interest rates, and the dollar's exchange rate. With fiscal policy targeted on short-run fluctuations and monetary policy directed towards maintaining a specific inflation rate, nations would be free to accept the resulting exchange-rate configuration. If nations, instead, focus monetary policy on the maintenance of rigid exchange rates, they must accept the inflation that results from this exchange-rate policy. If countries are to maintain a target-zone arrangement they can keep their inflation rates from diverging. And if countries are to work together, the participant countries will require a cooperative effort. In effect, a target-zone arrangement among industrial countries coordinate their monetary policies. Consequently, target zones sometimes can be used to advantage to increase the rate of inflation than they otherwise would.

To better understand the difficulties of maintaining a target-zone arrangement, imagine what would happen if the United States chose to maintain such an arrangement over the last six years. The dollar initially began appreciating against other currencies, and in 1982, where, the Dazzling Dollar became a market reality. These appreciation initially lightened a tightening of monetary policy in the United States. Later the appreciation seemed to improve investment climate and the huge increase in the federal budget deficit, both of which raised real interest rates in the United States. Under a target-zone situation, the United States would not implement either to reduce its federal budget deficit or to increase the money supply to avoid an inordinate appreciation of the dollar. As unlikely that the administration would cut military spending or raise taxes because of the dollar's exchange rate, so the burden would have fallen on monetary policy. The United States would have no surplus, except for the exchange-rate gains. The target zones would be held below the supply to the dollar, and monetary policy at this time was primarily aimed at achieving the goal of reducing inflation and quelling inflation expectations. We would have had to accommodate a major shift in our policy stance towards higher interest rates, and the dollar's exchange rate. With fiscal policy targeted on short-run fluctuations and monetary policy directed towards maintaining a specific inflation rate, nations would be free to accept the resulting exchange-rate configuration. If nations, instead, focus monetary policy on the maintenance of rigid exchange rates, they must accept the inflation that results from this exchange-rate policy. If countries are to maintain a target-zone arrangement they can keep their inflation rates from diverging. And if countries are to work together, the participant countries will require a cooperative effort. In effect, a target-zone arrangement among industrial countries coordinate their monetary policies. Consequently, target zones sometimes can be used to advantage to increase the rate of inflation than they otherwise would.

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2. Some economists argue that exchange-rate discrimination results from speculative runs and low confidence in the market. This would offer a justification for intervention. Nevertheless, we believe that the empirical evidence on this issue is inconclusive. At most, speculative runs and inefficiency would seem to explain only a small portion of the dollar's movement. See, for example, Jeffrey A. Frankel, "The Dazzling Dollar," Brookings Papers on Economic Activity, 1985, pp. 199-247.


4. The Exchange Rate System offers an alterna-4. The Exchange Rate System offers an alternative criterion, but the practical difficulties of implementing such a criterion are such that it not significantly less than those discussed here for implementing purchasing power parity.


7. Some analysts advocate the use of sterilized exchange-market intervention—that is, using purchases of foreign currencies and foreign bonds. This does not alter domestic money growth, to maintain independent inflation and exchange-rate targets. Unfortunately, theory and experience have shown that sterilized intervention can only have a temporary impact on exchange rates, so it does not provide, with the best policy instrument. (See Humage - forthcoming.)
Japan continues to run a huge trade surplus, with the United States accounting for a significant portion of these trade flows. For example, consumer goods imported from Japan are relatively expensive relative to Japanese goods. In the absence of such a depreciation, inflation differentials would prove unlikely that a target zone based on purchasing power parity arguments would hold. With fiscal policy targeted towards maintaining rigid exchange rates, the bands must be close enough to provide certainty about the exchange rate, and the resulting speculation could aggravate the pressures for appreciation. Nevertheless, since exchange-rate changes often occur infrequently, small jumps in exchange rates are common. This brings up an important issue. Assume, for example, that monetary objectives of policymakers, the nature and persistence of shocks that hit the economy, the relative size of the trade goods sector, the degree of price rigidity, and the formation of expectations would depend on the circumstances. The optimum exchange-rate target would depend on the circumstances. The optimum exchange-rate target would be the one that minimizes the cost of maintaining rigid exchange rates, that minimizes the cost of maintaining rigid exchange rates, that minimizes the cost of maintaining rigid exchange rates.

2. Some economists have argued that excessive exchange-rate volatility results from speculative runs and inefficiency in the market. This could offer a justification for intervention. Nevertheless, we believe that the empirical evidence on this issue is inconclusive. At most, speculative runs and inefficiency would seem to explain only a small fraction of the dollar's losses.


4. The Exchange Rate System offers an alternative practice, but the practical difficulties of implementing such a system are significant. Clearly, it would not be a substitute for a change in the central rates. Moreover, if the adjustment in the central rate was greater than the width of the bands, speculators would face no risk of loss in buying or selling at the rate dictated by the bands.

5. Most observers seem to choose bands of approximately 10 percent to 15 percent of the dollar. On the basis of this criterion, the yen should trade at approximately 180 yen to the dollar. On the basis of this criterion, the yen should trade at approximately 180 yen to the dollar. Nevertheless, since exchange-rate changes often occur infrequently, small jumps in exchange rates are common. This brings up an important issue. Assume, for example, that monetary objectives of policymakers, the nature and persistence of shocks that hit the economy, the relative size of the trade goods sector, the degree of price rigidity, and the formation of expectations would depend on the circumstances. The optimum exchange-rate target would depend on the circumstances. The optimum exchange-rate target would be the one that minimizes the cost of maintaining rigid exchange rates, that minimizes the cost of maintaining rigid exchange rates, that minimizes the cost of maintaining rigid exchange rates.


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The maintenance of target zones narrows the range of exchange-rate fluctuations. In the small country, this would enable a reduction in the uncertainty associated with exchange-rate volatility. Since under a target-zone arrangement each country can choose its own central rate, depreciation of its currency might not be necessary. If countries achieve and maintain a mutually consistent set of monetary, fiscal, and trade policies, a system of rigid target zones becomes unnecessary. Coordination and cooperation itself could maintain exchange-rate stability.

Conclusion

Exchange rates are endogenous variables. This means they do not move on their own. Exchange rates respond to other economic factors, such as changes in interest rates and inflation differentials among countries. Ultimately, exchange rates reflect the relative position of macroeconomic policies among countries. If current exchange rates appear to be volatile or out of line relative to their equilibrium values, it is because the underlying monetary and fiscal policies are volatile and unsustainable.

Limiting flexibility of exchange rates without the necessary coordination of macroeconomic policies will not provide a solution to macroeconomic imbalances. The imbalances will show up elsewhere in the economic system. For example, the rapid acceleration of the money supply in the United States during the 1970s under the Breton Woods fixed exchange-rate system, led to rapid accumulation of dollar reserves by foreign central banks, to the expansion of foreign money supplies, and to higher world inflation. The Bretton Woods Agreement could not guarantee policy coordination. The maintenance of target zones narrows the range of exchange-rate fluctuations. In the small country, this would enable a reduction in the uncertainty associated with exchange-rate volatility. Since under a target-zone arrangement each country can choose its own central rate, depreciation of its currency might not be necessary. If countries achieve and maintain a mutually consistent set of monetary, fiscal, and trade policies, a system of rigid target zones becomes unnecessary. Coordination and cooperation itself could maintain exchange-rate stability.

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