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MANAGING THE MANAGED FLOAT

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WILFRED ETHIER  
AND  
ARTHUR I. BLOOMFIELD



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

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*The authors, Wilfred Ethier and Arthur I. Bloomfield, are, respectively, Associate Professor and Professor of Economics at the University of Pennsylvania. Ethier is the author of a number of articles in the field of international economics that have appeared in the Journal of International Economics, the International Economic Review, and the Journal of Political Economy, among others. Bloomfield was for many years with the Federal Reserve Bank of New York and has served as consultant to various U.S. government agencies and commissions. This is his fifth contribution to the publications of the Section. Among his other publications are Capital Imports and the American Balance of Payments, 1934-39 (1950) and Monetary Policy under the International Gold Standard, 1880-1914 (1959).*

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*International Finance Section*

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# Managing the Managed Float

The quadrupling of oil prices at the end of 1973, superimposed on an already accelerating worldwide inflation, a world commodity boom, recessionary tendencies in some leading industrial countries, and other uncertainties and unsettled conditions, made it inevitable that the widespread floating of exchange rates inaugurated in March 1973 would have to continue for an indefinite period. By the same token, it was clear that the plans under way for a comprehensive reform of the international monetary system based on "stable but adjustable par values" would have to be postponed.

The Committee of Twenty of the International Monetary Fund, which had been working on these plans for over a year, decided at its January 1974 meeting that reform would have to be a more evolutionary and step-by-step process and that attention should be focused on interim measures of a more immediately relevant but less comprehensive character. In its *Outline of Reform with Accompanying Annexes (IMF Survey, June 17, 1974)*, approved by the IMF Board of Governors in September 1974, the Committee laid down the framework of a longer-run reform of the international monetary system, as well as a detailed program for immediate action. Included in the latter were guidelines it had drawn up for the management of floating exchange rates.

In a paper prepared in April 1974 (Ethier and Bloomfield, 1974), the authors of this essay investigated the general problem of managed floating, and in particular proposed a set of rules that we called the "Reference Rate Proposal." This essay will elaborate that discussion in the light of developments since that time, and will also briefly compare the Reference Rate Proposal with the guidelines of the Committee of Twenty and with those advanced by Mikesell and Goldstein in a recent *Essay* in this series.

## **The Managed Float to Date: Some Background**

Since its inception in March 1973 during a period of economic and political turmoil throughout the world, the system of widespread floating has operated much more satisfactorily than many had expected. Despite substantial and perhaps at times exaggerated swings in exchange rates, foreign trade and investment do not appear, by and large, to have been seriously affected by the float. The business and banking commu-

nity seems to have adjusted itself to the new regime without undue inconvenience; many of its leaders have in fact expressed their preference for the new system over the old (see, e.g., *The Economist*, Supplement, Dec. 14, 1974, pp. 19, 29, 51). The spot and forward-exchange markets have generally functioned well, despite episodic aberrations, especially in the earlier part of the period. Exchange speculation has not proved predominantly destabilizing, as had been feared in some quarters. International monetary crises of the kind that plagued the Bretton Woods system have been avoided. To the extent that countries have allowed their currencies to float freely, they have acquired a greater degree of freedom to pursue macroeconomic policies aimed at domestic goals. The differential effects on individual industrial countries of the oil crisis, world inflation, and world recession have been cushioned. There has so far been comparatively little evidence of the aggressively competitive national behavior long regarded as a major threat posed by a floating-rate system.

The float has not, of course, been entirely free or unmanaged. Monetary authorities have intervened in the exchange market from time to time, and in some cases on a more continuing basis, in order to influence the movements and levels of exchange rates. The exchange-rate regime that has emerged has been a hybrid one. A number of continental European currencies combined in the "snake" scheme—the German mark, French franc, Dutch guilder, Belgian-Luxembourg francs, and Danish, Swedish, and Norwegian kroner—are floating jointly against the dollar and other outside currencies with occasional official intervention, while being kept by exchange operations within a narrow band vis-à-vis each other. Other leading currencies, including the U.S. and Canadian dollars, the pound sterling, the Swiss franc, the Japanese yen, and the Italian lira, have been floating independently, although subject to greatly differing degrees of exchange intervention. The majority of the remaining currencies have been pegged to the dollar, sterling, or the French franc, but these pegs have been altered with varying degrees of frequency. Since the currencies to which they are pegged are floating, these currencies also fluctuate against outside currencies even when the pegs are not altered. A number of Middle Eastern currencies are tied to Special Drawing Rights (SDRs), which are themselves now valued as a "market basket" of sixteen major currencies.

Some supporters of floating rates argue that rates must be completely unmanaged if the full benefits of the system are to be realized. They oppose all official exchange operations to influence exchange rates. Even if this view is valid in principle, it is unrealistic to envisage a perfectly

free float. Most central banks will continue to intervene in the exchange market to smooth out erratic swings in rates or to cope with emerging "disorderly" market conditions. They will be under strong pressure to intervene in order to offset or moderate market forces threatening to push their exchange rates to levels that interfere with the achievement of domestic economic goals. They may be tempted deliberately to depreciate their exchange rates or to keep them at unduly undervalued levels in order to gain competitive trade advantages in time of recession, or to maintain them at unduly overvalued levels or even deliberately to appreciate them in time of inflation. And, for a variety of reasons, some central banks may want their currencies to float jointly with others or be pegged to individual foreign currencies or a composite of currencies—all of which would require intervention. For these and other reasons, a perfectly unmanaged float would seem out of the question.

Since widespread floating will persist for a considerable period and the float will be managed in varying degrees by national authorities, internationally agreed rules of conduct are necessary to regulate the management of floating exchanges. In the absence of such rules or guidelines, individual countries could engage in official exchange operations that were detrimental to the interests, or inconsistent with the operations, of other countries. National or bloc conflicts of policy in exchange intervention could pose a serious threat to orderly trade and financial arrangements and to the interests of the international community at large. Moreover, rules regarding official exchange intervention by no means exhaust the kinds of rules that might be needed in a regime of widespread floating, as will be noted later. For example, exchange rates can be deliberately influenced not only by official exchange operations but also by capital controls, monetary policies, and trade or exchange restrictions.

As it happens, there appear to have been no major conflicts of policy in exchange-rate management since the inauguration of the float. To be sure, the exchange rates of the leading currencies have undergone substantial swings against each other—especially in the case of the dollar against continental European currencies—during the period since March 1973. And the central banks concerned have intervened from time to time, in some cases on a very substantial scale, to moderate these swings, to cope with large-scale, short-term capital movements induced by a variety of economic and political forces, and to support their currencies against strong downward or upward pressures. But far from working at cross-purposes, central banks have shown a high degree of cooperation in their exchange-market interventions. This has been

true not only of interventions internal to the "snake" but also of relations between the Federal Reserve System and the leading continental European central banks. Official exchange operations in the latter case have often been closely coordinated. Thus, the Federal Reserve has sometimes intervened to support the dollar in periods of sharp decline against European currencies by selling those currencies (acquired through swap drawings on the central banks concerned), while the European central banks have simultaneously bought dollars in the exchange market. When the dollar has strengthened, the Federal Reserve has characteristically bought European currencies in the market, in large part in order to liquidate the earlier swap drawings, while European central banks have occasionally lent further support to their currencies by selling dollars at the same time.

Nor has there been as yet any clear evidence of deliberate exchange depreciation by any of the leading industrial countries in order to gain competitive trade advantages. During a period of worldwide inflation, this has not been entirely surprising. But even the existence of substantial unemployment in nearly all these countries during the past year—to say nothing of the unequal impact of the oil crisis on national balance-of-payments positions—has not induced competitive exchange depreciation. European central banks have at times resisted, by exchange intervention or other measures, what they regarded as excessively sharp appreciations, but there is little evidence that any of them have thereby kept their exchange rates at unduly undervalued levels.

Indeed, if there has been any evidence so far of competitive exchange-rate policies, it has pointed rather in the opposite direction. Some of the major industrial countries, most notably Japan, the United Kingdom, and Italy, have sold foreign exchange on a large scale throughout much of the period to resist or moderate a depreciation of their currencies. A desire to reinforce domestic anti-inflationary policies (i.e., to export inflation) has undoubtedly played an important, though probably not dominant, role in these interventions. At various times in 1973 and 1974, moreover, the "snake" countries sold exchange on a significant scale to cushion a sharp decline of their currencies against the dollar. A desire to maintain orderly market conditions was probably more important in this case than anti-inflationary considerations. In any event, it is clear that the industrial countries have so far tended to lean against the wind more often when their currencies were under downward than upward pressure.

What emerges strongly from a survey of official exchange intervention since the float is that there have been no major national conflicts

of policy resulting from aggressively competitive or predatory behavior in the management of the float. In somewhat broader perspective, this lack of conflict may be viewed as part of a general coincidence of national interests that has more or less characterized the international monetary scene since 1971. There seems to have been a broad consensus among the main industrial countries as to the "appropriate" levels of, and "acceptable" range of fluctuations in, their exchange rates against each other. For example, there was general agreement at the start of this period that the dollar was overvalued, and on two separate occasions it proved possible to reach multinational agreements on new structures of par values or central rates. During most of this period, economic activity in the major nations has been more closely in phase than at any other time since World War II, and price trends have been broadly similar. Finally, there has been a natural desire to avoid common crises in the face of the disintegration of the old system.

It would be a serious mistake to rely upon this unprecedented consensus for the indefinite future or, more specifically, over the period (of unknown length) of widespread managed floating, for the coincidence of interests upon which the consensus has rested is very fragile. Signs of its dissolution have already appeared. Large-scale unemployment and a cessation of growth have occurred in many countries, and governments vary in the relative importance they ascribe to anti-recession and anti-inflation measures. The oil crisis is having sharply different impacts on the balances of payments of individual countries. With the abatement of the commodity boom of 1973-74, agricultural issues are again becoming sources of potential conflict. Finally, the underlying uncertainty concerning basic economic interrelations in the world economy that led to widespread floating also mitigates against complacency regarding the continued absence of major conflicts in exchange-rate policy. International rules for the management of the float thus become increasingly important.

### **General Principles Regarding Rules**

What kinds of rules should we have? How comprehensive and ambitious should the set of rules be, which specific areas should they cover, and what particular form should they take?

Consider the first of these questions, the very general one of how comprehensive the set of rules should be. Their scope could fall anywhere between the extremes of no rules at all and a complete, detailed specification of a new international monetary system. But the latter would require a degree of international agreement on the basic issues of

reform that has not been forthcoming, and rules pertaining to a regime of managed floating are needed as soon as possible. Thus we deem it necessary to consider minimal reform programs. The rules should be general enough and nonrestrictive enough to be acceptable to most nations and enforceable without prior agreement on such basic, long-run issues as asset convertibility or the role of the dollar. They should also be flexible enough to encourage progress toward agreement on a longer-run, permanent reform, and to be compatible not only with a broad range of such reforms but with interim arrangements between individual central banks. On the other hand, the rules must of course have enough teeth to offer some protection against the major dangers from managed floating.

The next question pertains to the scope of behavior to be covered. Rules appropriate to a system of extensive, managed, exchange-rate floating could conceivably encompass a large number of areas. These could include (1) permissible and nonpermissible (and/or mandatory and nonmandatory) official exchange intervention; (2) the medium of intervention and the methods to be used; (3) the coordination of official intervention so that countries will not work at cross-purposes when engaged in permissible intervention; (4) the settlement of currency balances acquired through intervention; (5) the use of existing currency balances acquired through past intervention (e.g., the "dollar overhang"); and (6) the use of policies other than exchange intervention to affect exchange rates, such as capital controls, exchange restrictions, and monetary policies.

International agreement on (1) is most important, since it deals with a matter on which lack of agreement could have the most serious consequences. This is the area most directly relevant to the possibility of competitive exchange behavior or exchange-rate policy conflicts generally—the primary reason for rules.

Thus the rules must certainly address themselves to (1), but what about the other areas? Area (3), and to some extent (2), have to do with the general subject of central-bank cooperation. Such cooperation has been rather prominent and important thus far in the float, as it has been throughout the post-war period—in sharp contrast to the experience of the 1930s. Indeed, it is possible that the steady development of central-bank cooperation over a quarter-century will be regarded in the future as the single most significant by-product of the Bretton Woods system. But these areas must be left for the most part to the flexible, ad hoc responses of central banks to particular circumstances; they need not, and indeed cannot, be provided for in advance by specific rules.

In addition, prescriptions calling for central-bank cooperation or for

prior consultation under specific circumstances cannot be relied upon to take the place of formal rules in other areas, notably (1), because such cooperation may be least reliable when the need is greatest—in the face of sharply divergent national interests. In such areas, there must be some formal code of behavior more concrete than a procedure of central-bank cooperation and consultation.

With regard to areas (4) and (5), we might also rely to some extent upon ad hoc arrangements between specific central banks. For example, there are the arrangements made by the “snake” countries for Italy’s benefit in 1972, before that country dropped out of the scheme; another example is the 1973 agreement between the Federal Reserve and the Bundesbank to “split” the profits or losses resulting from coordinated exchange intervention. Nevertheless, a general agreement on specific rules would be necessary to deal with this area at all comprehensively, and this would obviously require at least a conditional accord on such contentious issues as asset convertibility. Thus areas (4) and (5) cannot really be dealt with in a minimal reform program, and the set of rules should not include, as an integral component, general rules dealing with the settlement of currency balances acquired through intervention, though arrangements between specific central banks can be expected from time to time. A central bank that unilaterally decided to buy foreign exchange would therefore have no assured means of disposing of the balances acquired except through subsequent (permissible) sales on the exchange market. The possibility of exchange losses consequent upon intervention would, of course, be one element in the bank’s decision as to whether or not to intervene.

The rules should, nonetheless, at least be compatible with all methods of dealing with areas (4) and (5) that might eventually be agreed upon.<sup>1</sup> It would also be desirable for the rules to contain features that might aid in implementing such an agreement. We shall presently discuss our Reference Rate Proposal in this context.

Item (6) clearly constitutes an area for potential rules because of the marked interdependence between the exchange markets and other economic policies. For example, exchange-rate movements during the current float have been influenced in the great majority of countries by changes in controls over capital movements. These controls were tightened in the first half of 1973. Early in 1974, however, the United States lifted its controls over capital exports and many European countries relaxed their controls over capital imports—in both cases at least partly to check the rise in the dollar against the “snake” currencies. There

<sup>1</sup> Some of the longer-run possibilities in these areas are examined in the *Outline of Reform* of the Committee of Twenty.

was a renewed tightening of some European controls late in 1974 and in 1975. A number of countries have also periodically adjusted their monetary policies with an eye to influencing movements in their exchange rates. Trade policies have occasionally been altered with the same end in mind, the Italian import controls being a good example. Success in eliminating overt policy conflicts in the exchange markets might indeed simply shift the scene of such conflicts. But this is really a quite separate issue. It is clearly desirable to coordinate national economic policies and to remove conflicts to as great an extent as possible, regardless of what is happening in the exchange markets or what rules have been adopted regarding intervention. Thus problems relating to capital controls, trade measures, monetary policies, etc., are beyond the scope of this essay, it being understood that cooperation in these areas is of great importance in its own right and that any set of rules should facilitate such cooperation as much as possible.

We are left, then, with area (1), the nature of the rules to be adopted regarding official exchange intervention. Three broad types of rules (not necessarily mutually exclusive) are possible here: (a) The rules could specify circumstances under which official intervention by a central bank was mandatory. The Bretton Woods system was of this type, as were most of the suggested reforms of that system, such as wider bands or the crawling peg; any rules of this type would have to be much more flexible to be considered now. (b) The rules could instead be of the opposite sort and specify circumstances under which certain types of intervention were prohibited. (c) Instead of pertaining directly to intervention, the rules could specify circumstances under which prior consultation or international cooperation of some sort would take place.

A scheme based upon rules of type (a) or (c) would, in our judgment, be impractical and/or inadequate. The latter, for example, is realistic only in the sense that such a rule is likely to be adopted by default, and the former is precluded by the very impossibility of establishing a fixed equilibrium exchange-rate structure that, we have argued, makes floating inevitable. Any sort of prespecified mandatory intervention, no matter how flexible, would potentially lead to the sort of crises that repeatedly occurred under, and ultimately toppled, the Bretton Woods system. We opt, therefore, for rules of type (b).

What kind of intervention should be prohibited? We wish to prevent competitive exchange-rate policies by central banks, but which concrete acts are of this kind? *Any* official intervention designed to influence the exchanges is by its very nature an attempt to interfere with market forces. But completely clean floating, as suggested earlier, is just not in the cards. We should like to rule out attempts to export inflation or un-

employment through deliberately induced exchange-rate movements. But any exchange-rate movement, regardless of its cause, will to some extent influence domestic and foreign economic performance, and who is to judge what evil lurks in the hearts of central bankers? Not that motive need be all that important in any case; the attitude and response of the rest of the world to one central bank's actions will clearly depend upon economic conditions in the rest of the world. Furthermore, our concern should not be only with official intervention to push exchange rates away from prevailing levels. Intervention to maintain palpably overvalued or undervalued exchange rates could equally be regarded as unneighborly behavior. The Bretton Woods system in the 1960s offers a number of clear examples of such behavior. It is simply not possible to give an operational definition of central-bank activity that constitutes "competitive exchange-rate behavior." Indeed, this is one more potent reason why we need a highly flexible set of rules. Our rules should be confined to attempting to prevent both those visible, overtly aggressive acts most likely to induce retaliation and the prolonged maintenance of outdated exchange rates.

To summarize, rules pertaining to the managed float should embody the following general principles: (1) They should constitute a minimal reform program, at once broadly acceptable and highly flexible, that avoids the unresolved long-run issues. (2) They should contain formal regulations regarding official exchange intervention and not rely solely on central-bank cooperation and consultation. (3) They should be designed to prevent the most egregious sort of central-bank conflict in the exchange market rather than any difficulty that could conceivably arise. (4) They should specify when intervention is *not* permissible, rather than when it is mandatory. (5) This specification should be in terms of concrete acts of intervention rather than in terms of the presumed motives for such acts. (6) They should be compatible with simultaneous efforts to foster central-bank cooperation and to deal with the possibility of conflicts arising from policies other than intervention that are designed to influence exchange rates. (7) They should not impede the evolution of a long-run reform of the international monetary system, whatever shape that might take.

### **The Reference Rate Proposal**

These general principles have been embodied in a specific program, the Reference Rate Proposal, to which we now turn.<sup>2</sup> The scheme requires

<sup>2</sup> See Ethier and Bloomfield (1974), and, for a subsequent discussion of the idea, see also Williamson (1975).

that a "reference exchange rate" be established for the currency of each participating nation. The following two rules constitute the proposal:

1. No central bank shall sell its own currency at a price below its reference rate by more than a certain fixed percentage (possibly zero) or buy its own currency at a price exceeding its reference rate by more than the fixed percentage. This is the sole restriction imposed upon central-bank intervention.
2. The structure of reference rates shall be revised at periodic pre-specified intervals through some defined international procedure.

Rule 1 in essence turns the basic idea of a par value inside out: It gives a point of reference away from which the market exchange rate must not be deliberately forced by official intervention, as opposed to a pegged rate that the authorities must defend. It is important to emphasize that Rule 1 never *requires* any specific kind of market intervention. The authorities of each country would be completely free to allow a "clean" float for their exchange rate, either permanently or temporarily, and they would not need to obtain prior approval or give notice in order to enter into such "transitional floating." However, any central bank would also be free to attempt to maintain its exchange rate within some band of its reference rate. (Note that Rule 1 should be applied only to official intervention; it does not apply to exchange transactions that a central bank might passively execute on behalf of government agencies required to make payments abroad. Nor would it apply to purchases of foreign exchange by a central bank directly from state enterprises that had been encouraged to borrow abroad, as has happened in Great Britain and Italy in recent years.)

Under "normal" circumstances, one would expect to find exchange rates near their reference rates, with central banks intervening at their discretion to smooth out fluctuations, just as, under the Bretton Woods system, exchange rates in "normal" circumstances were well within the band limits at which intervention became mandatory. Not only would central banks tend, in varying degrees, to defend the reference rates, but the structure of such rates, formulated via Rule 2, would constitute, in effect, a statement by the central banks of their collective view regarding the equilibrium structure of exchange rates.

Under "abnormal" circumstances, central banks could allow greater deviations from reference rates in response to market pressures. Clean floating or intervention to smooth out fluctuations or slow down movements away from reference rates would be permissible, but Rule 1 would prohibit attempts to induce or accelerate such movements. For example,

if the rates established in February 1973 were to be regarded as reference rates, the subsequent central-bank behavior described above would have been compatible with the present proposal, whereas any attempts to accelerate the decline of the dollar in May-July of 1973, or in the early months of 1974, or in late 1974 and early 1975, would not have been compatible.

Rule 1 would also give the structure of reference rates a stability in abnormal circumstances quite the opposite of that imparted to par values by the Bretton Woods system. For example, it has often been observed that upward pressure on a pegged exchange rate presents traders with an opportunity for a "one-way gamble" that could cumulatively induce further inflows of funds. With Rule 1, such pressure would undoubtedly cause the authorities to allow the exchange rate to appreciate, with the rise above the reference rate perhaps being slowed by intervention. As the exchange rate was driven further above its reference rate, traders would realize that the central bank could sell but not buy the currency, adding an element of risk to further purchases by traders. The greater the appreciation of the exchange rate, the more it would have to fall before the central bank had the option of buying domestic currency. Traders would also know that any subsequent upward revision of the reference rate would not necessarily serve to guarantee their profits, as it would not imply the establishment or maintenance of a higher market exchange rate.

A central purpose of Rule 1 is to limit competitive exchange-rate behavior by central banks. No set of workable rules could comprehensively eliminate such behavior; even the Bretton Woods system was vulnerable in this respect. By not allowing central banks to force or accentuate departures of market rates from reference rates, we attempt merely to impose a very simple and workable rule that strikes at the most overtly aggressive sort of behavior.

The rule is defined in terms of explicit, central-bank *behavior* rather than in terms of presumed central-bank motivations; it is of the minimal-reform "thou shalt not" type that we concluded was necessary. It is thus intended to provide the great flexibility that would make the plan more acceptable politically and also to allow individual central banks or groups of central banks unilaterally to adopt a variety of exchange regimes (clean floating, true pegged rates, group floating, wider bands, etc.), so long as they do not violate the rule. In addition, Rule 1 would facilitate the periodic revision of reference rates, that is, the implementation of Rule 2. For the lack of mandatory intervention implies that, by agreeing to a specific reference rate (which the authorities are under

no obligation to defend), a nation will directly influence real economic variables only slightly, if at all, and will sacrifice relatively little national economic sovereignty. Furthermore, regular multilateral revisions of reference rates will be technically possible without inducing the exchange crises that must inevitably develop in a world of internationally mobile capital whenever the authorities are obligated to defend an exchange-rate structure that everyone knows is about to be revised.

In addition to limiting aggressive central-bank behavior of the kind noted, Rule 1 is thus intended to serve another purpose: It should facilitate the technical functioning of the exchange-rate system by greatly reducing the likelihood of crises, while still furnishing a point of reference for exchange rates. Rule 2 likewise has two functions. First, it provides for the periodic adjustment of reference rates so that reasonably realistic levels can be approached and maintained. The very uncertainty that makes floating inevitable would compel periodic adjustment in the structure of reference rates. But even without this uncertainty, such adjustment is necessary in order to minimize the possibility that countries will intervene to maintain overvalued or undervalued exchange rates. An unfortunate characteristic of the operation of the Bretton Woods system during the 1960s was the rigidity of the par values of several important currencies, notably the dollar, yen, and mark, in the face of changing circumstances. Second, Rule 2 is intended to be the means of injecting a formal international mechanism into the scheme. Such a mechanism can serve as a vehicle for international cooperation, as a lightning rod to draw away international conflicts and tensions from violations of Rule 1, and as a cornerstone for the possible future evolution of a reformed international monetary system.

The close interdependence between the two rules of our proposal should be emphasized. The degree to which Rule 1 attains its objectives clearly depends upon the success of Rule 2 in ensuring that the structure of reference rates is at all times reasonably "realistic." And the ease with which Rule 2 can be implemented depends upon Rule 1, for the following reasons: international agreement on a structure of reference rates can be more easily reached when little loss of economic sovereignty is involved, and international consultation on such matters need not trigger or accompany an exchange crisis.

This interdependence is reflected in the form of Rule 1, which allows for the possibility of a band around the reference rate within which intervention in either direction would be permissible. This band is related to the efficiency of the mechanism by which Rule 2 is applied. If the participating nations can agree to implement the rule in such a way

as to adjust reference rates quickly and accurately, the band would serve little purpose and so would presumably be of narrow or even zero width. But if the agreed-upon mechanism leaves open the possibility that reference rates will remain at unrealistic levels for considerable periods, a rule prohibiting intervention to drive exchange rates away from these levels could make little economic sense. Rightly or wrongly, central banks might anticipate significant gains from such intervention. In any case, the existence of reference rates at unrealistic levels for lengthy periods would certainly weaken the commitment felt by the banks to Rule 1, jeopardizing the success of the plan even when the reference rates were, in fact, realistic. Thus a band within which intervention in both directions is allowed would be desirable and would reduce the likelihood of such episodes. The more effective the means of implementing Rule 2, the less necessary, and the narrower, would be the band in Rule 1.

### **Implementation of the Proposal**

We have argued that a system of managed floating should not rely for its smooth operation exclusively upon central-bank cooperation but should include some formal rules of behavior. This is not to say, of course, that such cooperation can be dispensed with; indeed, we regard it as essential. The many formal and informal arrangements among central banks should continue, and new ones would undoubtedly evolve with further experience. Perhaps, also, specific rules requiring such cooperation under certain circumstances could be formulated in connection with the proposal.

For example, it is conceivable that market intervention by one central bank, even if permissible under Rule 1, might run counter to the wishes of some other central bank. If France buys dollars to prevent the franc from appreciating, she is also preventing the dollar from depreciating, and this might not be desired by the U.S. authorities. There are a number of ways of dealing with such cases, which could arise under other exchange-rate systems as well. One possibility would be to prohibit or to limit unilateral intervention, but we doubt that rules of this sort would be either feasible or desirable. It may be possible to deal with these cases by requiring that Rule 1 apply simultaneously to all currencies involved in any intervention. That is, in the example referred to above, in order for France to be able to purchase dollars with francs it would be necessary not only for the franc to be above its reference rate, but also for the dollar to be below *its* reference rate (each in terms of a common standard or numeraire, discussed below). If the latter condi-

tion were not satisfied, the French authorities would have to find another intervention currency that was below its reference rate or else abstain from intervention altogether. But this sort of implementation of Rule 1 would be possible only if international agreement were reached on the issues of multicurrency intervention and perhaps reserve-asset settlement as well, and an important aspect of the Reference Rate Proposal is that it does not otherwise require such agreement. A third possibility would be to do nothing formally and thus allow the problem to be solved in a decentralized fashion by the action of individual central banks, presumably in accord with Rule 1. In this case, one would expect procedures of interbank cooperation and consultation to evolve and to be quite useful; a guideline calling on central banks to take into account the effects on other countries of their intervention policies, and perhaps also to notify them of their intentions, would be especially appropriate.

We noted earlier that policies other than exchange intervention can be used deliberately to influence exchange rates, and that success in eliminating policy conflicts in exchange markets might simply shift the scene of conflict elsewhere. As indicated, this is really a separate issue and beyond the scope of this essay. It is worth mentioning, however, that it may be possible to utilize the Reference Rate Proposal itself in a way that would deal to some degree with this problem. If Rule 2 is implemented by charging a specific international body (such as a standing committee of the IMF or its proposed Council of Governors) with revising the structure of reference rates at specific intervals, that body could also be instructed to take any such policy conflicts into account when setting the rates. For example, a country imposing "unjustified" restrictions on imports could find its reference rate lowered by such a committee as a result. Since reference rates need not be defended, this would be a substantive way of dealing with such conflicts without imposing serious economic sanctions. It would be important, however, to avoid hamstringing the operation of Rule 2 with disputes over whether specific national actions are justified or not. Thus the agency responsible for deciding such disputes should be distinct from the agency actually setting the reference rates.

The reference rates must of course be defined in terms of some standard. This is a point of very little importance for a minimal program, and could be decided upon at the commencement of the plan. For concreteness, we can think of the reference rates for the various currencies as being symmetrically defined in terms of SDRs, with the cross rate between each domestic currency and the central bank's chosen inter-

vention currency as the rate thus relevant to Rule 1. We have deliberately worded the two rules in a symmetrical fashion, and the proposal no doubt would be more attractive if embedded in an international monetary system in which the various currencies play symmetrical roles. For example, Rule 1 could then be used, as discussed above, to deal with the problem of intervention at cross purposes; also see Williamson (1975) for an interesting further discussion along this line. We do regard it as important, however, that the Reference Rate Proposal be acceptable as a minimal reform program, independent of the degree of symmetry.

The precise mechanism for implementing Rule 2, and for the initial establishment of a reference-rate structure, is important but could also be decided upon at the commencement of the scheme. (The reference rates, of course, need not coincide with present par values or central rates.) A wide range of alternatives is possible. It could be agreed that each quarter (or at some other interval) the finance ministers or heads of central banks of some or all of the participating nations would renegotiate the structure of (some or all) reference rates. This would amount to holding periodic sessions like the negotiations of 1971, or alternatively like those of 1973, both of which successfully achieved agreement on new structures for the (far more binding) pegged exchange rates. Thus it would not be unrealistic to hope that such a procedure could be made workable. Alternatively, the revision of reference rates could be made by, or in conjunction with, an international institution such as the IMF or perhaps some agency created specifically for this purpose.

Various technical devices might be employed instead of, or in addition to, negotiation. For example, adjustment could be achieved through a system of "crawling reference rates," with the reference rates being revised by small amounts at frequent intervals in response to changes in objective indicators. To implement Rule 2 in this way would be to approach a gliding parity regime, as advocated by a number of economists for some years now, but from the side of floating exchange rates rather than pegged rates. The objective indicators that would trigger reference-rate changes would have to include both changes in reserves (to prevent extended support of an exchange rate that is clearly out of line) and market exchange rates (to prevent the reference rates of countries that seldom intervene from getting out of line). For example, a weighted average of past market exchange rates could be used to obtain a provisional value of the new reference rate, and this provisional value could then be adjusted upward or downward, as indicated by reserve changes, to obtain the actual value of the new reference rate.

Of course, other technical devices could instead be used, and the relative importance of objective indicators and negotiation could be shifted. Different methods could also be used for different groups of countries. For example, the reference rates of certain "key" currencies could be determined by one of the methods discussed, while the rates of other countries were then declared by the respective national authorities. Some such division of methods should be provided for in order to accommodate currency blocs, joint floating, or simply a failure to agree upon a single method.

We are somewhat skeptical about the possibility of wide, early agreement on any formal method for setting reference rates, and indeed we must grant the possibility that any provision involving the mandatory adjustment of reference rates might prove to be too much to achieve at the present time. Nevertheless, there should be a strong presumption that adjustments would be made in response to market forces. Adjustments would be indicated, for example, by pronounced deviations of market rates from reference rates; significant changes in the reserve levels of central banks undertaking intervention; and perhaps even other developments, such as a change in the price of oil that is expected to influence exchange markets in the period between successive regular revisions of reference rates. In any case, it will be easier to achieve progress toward the mandatory adjustment of reference rates than toward the mandatory adjustment of market rates, where so much more is at stake.

If all else fails, and if no agreement on an explicitly multilateral procedure can be reached, each central bank could unilaterally declare its own reference rate at periodic intervals. Consultation at least with its principal trading partners would then be in each central bank's own self-interest, and would be necessary to ensure that the  $N$  central banks do, in fact, establish a consistent set of  $N-1$  exchange rates.

In a recent *Essay* in this series, Mikesell and Goldstein discuss proposed "alternative rules for official market intervention" in a floating-rate regime that could be applied to central-bank operations reflecting various hypothetical motivations. We prefer, and this preference is clearly reflected in the Reference Rate Proposal, a single rule or set of rules defined in terms of concrete operations rather than in terms of the possible motivations for those operations. Thus "alternative rules" appeal to us more as taxonomic devices than as useful operational guidelines. Nevertheless, it may be appropriate to inquire how the present proposal would be expected to work, or should be made to work, under the circumstances considered by Mikesell and Goldstein. We do this

now, using their classification (but not their numbering) of circumstances that could prompt official exchange intervention.

1. *Neutral intervention to moderate exchange-rate fluctuations.* Under our proposal, such intervention could be undertaken, at the option of the individual central bank, by supporting the exchange rate at its reference rate. There would be no direct limitations on the volume of intervention or on net reserve changes, as recommended by Mikesell and Goldstein; these would instead be taken into account in the revision of the reference rates via Rule 2.

2. *Intervention to offset the effects of political and economic "shocks," intervention to offset the effects of nonrecurring events having a serious but temporary impact on the payments balances, and extensive intervention to maintain rates consistent with long-run basic balance.* In practice, these three motives would prove difficult to distinguish from each other and also from the previous situation. In any case, they would presumably relate to the Reference Rate Proposal in the same way as (1).

3. *Intervention to offset cyclical movements in the trade balance.* Such intervention would be possible, according to Rule 1, to the extent that a slump would otherwise cause a currency to appreciate above its reference rate and a boom would cause it to depreciate below. We do not think it either wise or practical to add a specific rule prohibiting such intervention, as Mikesell and Goldstein do. Reliance should instead be placed on Rule 2, which is specifically designed for such problems. Thus, if a prolonged slump induced upward pressure on a country's exchange rate, sooner or later its reference rate would be revised upward, thus preventing continued intervention to resist appreciation. The degree to which such intervention would be allowed would therefore be reflected in, and determined by, the speed of adjustment embodied in the mechanism for implementing Rule 2. Also, if the mechanism included an international agency with at least some discretionary power, that agency could be specifically instructed to take cyclical factors into account in some special way, if this was deemed advisable.

4. *Intervention to adjust the volume or composition of official reserve assets.* Such intervention would violate Rule 1 if it tended to push exchange rates away from reference rates. The adjustment of official reserves through exchange-market operations would be possible under two distinct circumstances. First, it would be possible if the market exchange rates of the currencies involved happened to bear the appropriate relationships to their reference rates. For example, if the Bundesbank wished to sell some of its excess dollars for marks, it could do so when the mark happened to be below its reference rate. But the volume of

such intervention would be severely limited both by the requirement that the exchange rate not be driven above the reference rate and by the eventual revision of the reference rate itself. Second, it would be possible if there were agreement to adjust the relevant reference rates. For example, if it were determined that Germany should dispose of a portion of her dollar reserves, the reference rate for the mark could be temporarily raised (and that for the dollar temporarily lowered), relative to what it would otherwise be, so as to permit the operation to take place. The effect of the proposal would then be to bring decisions involving a substantial adjustment of reserve assets within the well-defined international procedure used to implement Rule 2. This is as it should be.

5. *Intervention to maintain joint floats or pegged currencies.* As suggested earlier, these arrangements could be embodied in the implementation of Rule 2. Such intervention would not violate Rule 1 if carried out in a way that was neutral with respect to third countries, i.e., that did not influence the exchange rates of the currencies in the joint float relative to other currencies.

### **Alternatives to the Reference Rate Proposal**

There are, of course, other systems besides the Reference Rate Proposal that embody, in varying degrees, the general principles listed on page 9 above. We shall now compare some of these alternatives with the Reference Rate Proposal.

#### *Reserve-Level Alternatives*

There have been many suggestions for rules based in some way on reserve levels or on changes in these levels. Most of the alternative rules discussed by Mikesell and Goldstein are of this type. Reserve levels could easily be incorporated into our own proposal—for example, as indicators of how reference rates should be adjusted. Indeed, we would expect reserve levels to be used in this way, at least informally. But here we are more interested in the possibility of using reserve levels by themselves as a basis for differentiating between permissible and non-permissible exchange intervention. For example, one could stipulate that target reserve levels rather than reference rates be set via Rule 2. There might then be many counterparts to Rule 1. Prohibiting central banks from accumulating reserves when their stocks were above target levels and from running down reserves when their stocks were below would rule out any intervention by a country once its reserve target was achieved and until it was revised. Indeed, the only scope for individual

central-bank discretion regarding intervention would be in the speed with which actual reserves tracked the target levels. Such a restriction seems not only unrealistically severe but makes little economic sense. A band around the target reserve level would allow more discretion. In effect, it would impose a limit on the net amount of intervention within a period of time—the period between successive revisions of target levels. But such a rule could induce destabilizing speculation as traders observed reserves approaching their limit, and it would neither prohibit aggressive intervention within the band nor allow harmless intervention outside.

Still another possibility that avoids these difficulties and is closer in spirit to Rule 1 of the Reference Rate Proposal is the following rule: No central bank shall accumulate reserves when its stock of reserves exceeds the target level by more than a certain percentage *and* the price of its currency is not rising; no central bank shall decumulate reserves when its stock of reserves is below the target level by more than a certain percentage and the price of its currency is not falling. Such a rule is more cumbersome than Rule 1 because of its twofold nature and would therefore be harder to apply. It would be far more difficult to tell whether the rule was being violated or not. Who would know whether exchange rates were rising or falling when reserves were actually sold?

There is a significant objection to all reserve-level alternatives. In order to determine target reserve levels it is necessary to decide first what constitutes reserves, what the worldwide level of liquidity should be (and thus, by implication, the “average” amount of flexibility in the system), and how to adjust the target levels when exchange rates change (and thus, by implication, how to handle problems such as conversion guarantees). All of this is in *addition* to difficulties like those related to implementing the reserve-level counterpart of Rule 1 of the Reference Rate Proposal. Since the major reason for investigating a minimum reform proposal is that agreement on such issues seems remote, we regard this objection as very serious.

Finally, at a more basic level, the fundamental goal of any proposal is presumably to maintain an approximation to an equilibrium structure of exchange rates. There is, in truth, no such thing as an equilibrium structure of reserve levels. When reserve levels are used to define permissible intervention, they are really serving as proxies for exchange rates, and they need not be very exact proxies. Maintaining a specified set of reserve levels could, on occasion, induce undesirable changes in exchange rates, regardless of how speedily the targets were adjusted.

Indirectly limiting exchange-rate behavior by limiting reserve-level behavior adds no desirable features to proposals that address exchange rates directly; it merely introduces another possible source of error.<sup>3</sup>

### *Leaning Against the Wind*

A second class of alternative proposals would replace our suggested reference rates by the current market rates. Again, a great many variants are possible. For example, recent proposals that central-bank intervention be limited to "leaning against the wind" fall into this class. As a prototype of these proposals, consider the following single rule: No central bank shall sell its own currency when its price is falling or buy its own currency when its price is rising. (This is the rule contained, with some qualifications, in Guideline 2 of the *IMF Outline of Reform*.)

The main difference between this proposal (which we shall refer to as *Leaning Against the Wind*) and our scheme is, of course, the absence of a structure of reference rates. Thus *Leaning Against the Wind* lacks both the point of reference in the exchange markets and the inherent vehicle for international cooperation that we regard as desirable features of our scheme. Of course, some may prefer to avoid such features.

There is a further technical difference between the two proposals. Under *Leaning Against the Wind*, a central bank could engineer a depreciation (or appreciation) by leaning more in one direction than the other whenever the opportunity arose. This could also happen under the Reference Rate Proposal. It follows simply from the lack of mandatory intervention. But, under *Leaning Against the Wind*, the new rate could then be defended, while under our rule it could not. For example, a central bank could "leak" a rumor of an impending trade deficit, easier money, etc., inducing a speculative sale of its currency on the exchanges. Under either scheme, the central bank would be allowed to refrain from intervention, permitting the exchange rate to depreciate until the (deliberately induced) speculative selling ceased. But, under *Leaning Against the Wind*, the central bank could then defend this new lower rate against any tendency to return to equilibrium and could justify such intervention. Under our plan, this would not be possible once the exchange rate fell below its reference rate.

*Leaning Against the Wind* could also be used as a justification for

<sup>3</sup> For an extensive background discussion of objective indicators, including reserve levels, see Underwood (1973). Also Kenen (1975) examines alternative methods of adjusting exchange rates and concludes that reserve-level rules are the least efficient.

preventing adjustment to a new equilibrium exchange rate, as happened during the 1960s. This is also possible in the short run in our scheme and probably in any scheme other than pure floating. (One could conceivably argue that central banks should be allowed to lean only with the wind rather than against. Why should it always be desirable to resist market forces?) But Rule 2 of the Reference Rate Proposal provides a mechanism to deal with just this problem. By contrast, a resistance to basic market forces is inherent in the very idea of Leaning Against the Wind.

Finally, the Leaning Against the Wind proposal involves measuring central-bank behavior, not against a specific exchange-rate value, but rather against the way the exchange markets are changing. This would make violations of the rule much less obvious. The problem can be limited somewhat by a proper formulation of the Leaning Against the Wind rule, but it cannot be removed.

We should emphasize two points about the alternative discussed in this section. First, it is a prototype chosen for convenience to represent a number of possible variants. Second, although we have discussed the substantial differences between this alternative and the Reference Rate Proposal, the similarities are extensive, and it is our purpose to present the reader with alternative ways to implement the general principles we have advocated.

### **The IMF Guidelines**

Our earlier paper, "The Management of Floating Exchange Rates," was written in April 1974 before the release in June of that year of the *Outline of Reform* of the IMF Committee of Twenty, which included the "Guidelines for Countries Authorized to Adopt Floating Rates." We close this essay with a brief discussion of the Guidelines<sup>4</sup> in the light of the general principles underlying the Reference Rate Proposal (summarized on page 9 above).

The Guidelines are certainly meant to constitute only a minimal reform program and are thus consistent with our general principle (1). Indeed, they should perhaps not be regarded as a program at all:

They are termed guidelines rather than rules to indicate their tentative and experimental character. They should be adaptable to changing circumstances. No attempt is here made to indicate the precise procedures through which they would be implemented. These will be considered later, but they must essentially rest on an intensification of the confidential interchange between the member and the Fund (*IMF Survey*, June 17, 1974, p. 182).

<sup>4</sup> The Guidelines are reprinted in the Appendix to Mikesell and Goldstein (1975).

The Guidelines are meant to be interim arrangements for the period of widespread floating while permanent reform is being worked out. They are also meant to become, or to develop into, rules for currencies allowed to float under the reformed system, which is expected to contain provisions authorizing such occurrences. Thus the Guidelines would satisfy our general principles (1) and (7). They would also satisfy our principle (6); indeed, Guidelines (5) and (6) concern themselves with interbank cooperation and conflict outside the exchange markets.

Guidelines (1), (2), and (3), which are directly addressed to central-bank exchange intervention, basically fulfill our principles (2), (3), and (5). They are formal rules, directed toward the most serious potential conflicts, and they are expressed for the most part in terms of the mechanics of intervention rather than the presumed motivation. They are perhaps not quite as specific as one might wish, but this is to be expected at the initiation of a "tentative and experimental" process, and the Guidelines are clearly intended to allow the evolution of more specific rules.

Our general principle (4), that the rules should specify when intervention is not permissible rather than when it is mandatory, is violated, however, and in two ways. Guideline (1) *requires* intervention (thereby ruling out the option of a clean float). The Guidelines are also meant to apply to currencies in authorized floats but do not mention the circumstances under which such floats will be authorized. This is no doubt due in part to the fact that floating has no legal basis at present. But the *Outline of Reform* clearly implies that, in the future, floating should require prior IMF approval. We prefer our principle (4) and therefore recommend that countries have the unconditional (at least *de facto*) option of floating, and that Guideline (1) be implemented in a permissive rather than mandatory fashion. (Mikesell and Goldstein also reach this conclusion.)

We conclude that, by and large, the IMF Guidelines accord well with our general principles regarding rules for a managed float. How do they specifically relate to the Reference Rate Proposal and some of its alternatives, discussed above, that also accord with these principles?

Guidelines (1) and (2) constitute an example of the kind of proposals we have classified as Leaning Against the Wind. Indeed, Guideline (2) contains basically the same rule we discussed in detail under that heading. Thus that discussion is directly pertinent to the IMF Guidelines.

Guideline (3), with its reference to a "target zone of rates" that a country might seek to establish with the Fund's permission, has a cer-

tain relationship to our Reference Rate Proposal. Indeed, the implementation of Guideline (3) could conceivably move the system toward something similar. This would require that "target zones" be established for all currencies, instead of merely being reserved as an option for those that are floating. It would also require a regular re-examination of the location of these target zones. The *Outline of Reform* implies that such target zones would be available only as a possible temporary tool for currencies in an authorized float, simultaneously with a system of par values.

We believe that our suggestions for implementing Guideline (3), together with the suggested substitution of permissible intervention for mandatory intervention, would significantly increase the value of the Guidelines both in dealing with the present managed float and in serving as a first step in the evolution of a new international monetary system. The *Outline of Reform* appears to envisage the future system as one comprised of "stable but adjustable par values," modified so as to accommodate occasional inevitable (but unwelcome) bouts of managed floating. Instead, we think it both preferable and more realistic to establish rules for a world in which extensive managed floating is the norm, and to allow these rules to evolve into a new system.

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