

ESSAYS IN INTERNATIONAL FINANCE

No. 73, March 1969

TOWARD LIMITED
EXCHANGE-RATE FLEXIBILITY

GEORGE N. HALM



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

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INTRODUCTION

In its 1964 report on the balance of payments the Joint Economic Committee of the United States Congress recommended that "the United States, in consultation with other countries, should give consideration to broadening the limits of permissible exchange rate variations" and in its March 1965 *Report* it urged once more a study of this idea: "Broadening the limits of exchange rate variations could discourage short-term capital outflows through free market forces, on which we should continue to place our main reliance; permit greater freedom for monetary policy to promote domestic objectives; discourage speculation against currencies by increasing the risk; and to some extent promote equilibrating adjustment in the trade balance. . . ."

Noting again in August 1965 (*Guidelines for Improving the International Monetary System*) that it was unaware that any exploration of the advantages and disadvantages of widening the limits of exchange-rate variation had occurred since it had first recommended such study, the Joint Economic Committee expressed the opinion that "to ignore promising proposals for improvement would appear to us a luxury which the free world can ill afford. We do not insist that broader limits for exchange rate variations be adopted, for we have not fully explored their implications nor weighed any possible disadvantages against the benefits we recognize. But we do insist that the expertise of the administration be brought to bear on the idea and that it receive the serious consideration which it merits."

There is no published evidence to the effect that the administration has heeded the urgent appeal of the Joint Economic Committee, which was equally disregarded by other governments, the International Monetary Fund, and the Group of Ten.

Today, three years later, the situation is still unchanged. In September 1968 (*Next Steps in International Monetary Reform*) the Joint Economic Committee repeated its recommendation of a wider band "in view of the persistent international deficits on the part of the United States, the widespread imposition of autarchic restrictions on trade and capital flows in response to reserve losses, and an incipient rise in protectionist sentiment both in this country and the rest of the world" (p. 6). The International Monetary Fund and the Group of Ten, however, continue

to insist, at least publicly, that the present system of fixed, though not unalterably fixed, parities has worked well. Nevertheless, it is obvious that the present arrangements have not been working smoothly. They have led to repeated crises of confidence, to political tensions between Europe and the United States, and even to the introduction of quantitative controls that contradict our professed desire for increased freedom in international economic transactions. These difficulties have not been exclusively caused by exogenous forces; they are to a large extent the result of major defects inherent in a system that tries to join together incompatible elements.

One such defect concerns the use of dollar balances as the main source of additional international liquidity reserves. A constant growth of foreign-held dollar balances implies a continuous external deficit of the United States and, considering the gold convertibility of official foreign dollar balances, a deterioration of the United States' net reserve position. The present handling of the liquidity problem, therefore, decreases confidence in the system. The forthcoming creation of Special Drawing Rights may eventually end this dilemma. But the SDR scheme is to come into operation only after a drastic reduction in the deficit of the United States—a dangerous policy that, if adopted, would make the situation worse before it became better. Reforms of the international monetary system must pay careful attention to the problems of transition from old to new arrangements.

Another basic weakness of the present international monetary system comes from the fact that the system is based on fixed, though not unalterably fixed, exchange rates, together with free convertibility of the major currencies into one another—and of dollars into gold—at fixed parities. In spite of all assurances to the contrary, this so-called adjustable-peg system has shown itself to be a poor compromise between fixed and flexible exchange rates. The reason is obvious. A combination of fixed exchange rates, currency convertibility, and imperfect harmonization of the national economic policies of the member countries cannot work well. As soon as national economic policies diverge—as when, for example, different rates of inflation prevail—fixed exchange rates become disaligned rates, even if they had originally been correct or “equilibrium” rates. Disaligned rates give wrong signals to international trade, international capital flows, and domestic production in the various countries. External and internal tensions will then lead to growing insistence that these “fundamental disequilibria” be corrected through devaluations of deficit and upvaluations of surplus currencies; and these discrete peg adjustments, once they have become unavoidable, will cause severe

shocks in the market economies in which wrong price signals have been permitted to lead to misallocations.

In failing to solve the adjustment problem, the adjustable-peg system intensifies the weaknesses of the reserve-currency system. A deficit country with an overvalued currency can maintain convertibility only so long as it possesses a sufficient supply of foreign exchange; and a financial crisis caused by peg adjustments leads to an additional emergency demand for liquidity reserves. This explains the present overemphasis on the liquidity problem. The dilemma becomes critical when doubts in the maintenance of the dollar-gold parity lead to attempts to eliminate the external deficit of the United States before a new system has been firmly established. The new system should not only provide for international liquidity reserves independent of a continued deficit of the United States, it should reduce the demand for liquidity reserves through a better adjustment mechanism.

We ought to find out whether greater exchange-rate flexibility can provide the presently lacking adjustment mechanism and, if so, how greater exchange-rate flexibility can be built into the international monetary system.

THE CASE FOR FIXED EXCHANGE RATES

Considering the obvious shortcomings of today's international monetary system, it is, at first, surprising that fixed exchange rates meet with the almost unanimous approval of bankers, businessmen, and government officials. If it concerned other prices of strategic importance (such as wages or interest rates), these same persons would oppose a policy of administrative price fixing as inconsistent with the basic principles of a market economy. They know that price fixing tends to lead to quantitative restrictions and eventually to bureaucratic administration of the economy from the center. Why, then, should exchange rates be an exception from this rule?

The main argument is that fixed exchange rates provide a firm and reliable basis for international trade and international financial transactions. If, however, fixed exchange rates can only be maintained by influencing demand and supply conditions on the foreign-exchange market through substantial changes in domestic economic policies or even through quantitative restrictions, the cost of a fixed-rate system can exceed its benefits.

As far as quantitative restrictions are concerned, the case for fixed exchange rates is difficult to uphold. In introducing exchange controls, we abandon the principles of the market economy. If we want currency

convertibility and multilateral trade, we cannot argue for fixed exchange rates once they are sustainable only via quantitative restrictions.

Whether and to what extent monetary and fiscal policies ought to be employed to maintain currency convertibility at fixed exchange rates is an open question. The answer will depend on such circumstances as the relative importance of foreign to domestic transactions, the existing price elasticities, and the relative emphasis on domestic or external balance. Where downward price and wage inflexibilities prevail, the maintenance of fixed exchange rates may imply undesirable results in terms of employment and growth. The cost of maintaining convertibility at fixed exchange rates may then exceed the benefits, and it can no longer be taken for granted that fixed rates are better than flexible rates. The fact that the U.S. Government found it advisable to introduce quantitative restrictions in lieu of monetary measures shows that the costs of contractionist policies were considered too high.

The following remarks on arguments for fixed exchange rates are incomplete; they merely try to show that the prevalent wholesale rejection of arguments for exchange-rate flexibility is not justified, particularly when we keep in mind that the present international payments system permits discrete peg adjustments in the case of fundamental disequilibrium.

The strong attachment of central bankers to fixed exchange rates is easy to understand. Only when the monetary authorities are duty-bound to convert the national currency freely into other currencies at fixed parities, will these authorities be induced to harmonize, as best they can, their national monetary policies with those of the other members of the international payments system. We are told that only the fear of running out of liquidity reserves will assure the necessary monetary discipline and the harmonization of national credit policies. Having received the mandate to defend the exchange value of the national currency and to maintain its free convertibility, the central banker is upheld in his political struggle inside the government (for example, against inflationary deficit spending) and outside (for example, against pressure groups with monopolistic market influence who press for "permissive" money creation).

While much can be said for this argument, it is not correct to assume that discipline is exclusively fostered by the fear of losing liquidity reserves and of endangering convertibility. Maintenance of convertibility can no longer be used as an argument in the defense of fixed exchange rates once exchange controls have been introduced and full convertibility has thereby been abandoned. Furthermore, the size of the liquidity reserves is not the only gauge by which the central bank can judge the

international position of the currency. "After all, exchange rate movements are very clear and loud warning signals. They are much more noticeable by the public than are reserve movements. It seems reasonable to expect that, in deficit countries of major importance as well as in surplus countries, clearer signals would gradually *increase* rather than reduce effective pressure toward responsible behavior."¹

The argument that fixed exchange rates foster monetary discipline rests on the assumption of *limited* reserves. However, some advocates of fixed exchange rates want to soften the impact of an external imbalance on domestic policies through the supply of *very large* liquidity reserves. This, for example, is the attitude of Sir Roy Harrod, who considers fixed exchange rates advisable because a depreciation of the national currency would imply increasing import prices and interfere with an "incomes policy" that tries to keep wages and prices in line by moral suasion rather than by the use of monetary instruments. But, if an incomes policy is to be substituted for monetary and fiscal measures, we have to doubt the ability of the country to maintain a given fixed exchange rate in the long run. Peg adjustments will then become unavoidable and may prove more damaging than flexible exchange rates to the success of an incomes policy.

Most of the reasoning in favor of fixed exchange rates can be applied only to permanently fixed rates. In the adjustable-peg system the monetary authority can count on the International Monetary Fund's permission to alter the gold parity of the national currency in the case of "fundamental" disequilibrium. Once parity adjustments are permissible, most of the arguments for fixed exchange rates collapse: the long-run transactions no longer rest on the safe foundation of a stable international value of the currency unit; monetary and fiscal policies are no longer forced to defend international liquidity reserves through inconvenient domestic policies; and harmonization of national credit policies can no longer be counted on, with the result that needed adjustments are brought about belatedly and abruptly through devaluations and upvaluations. Emphasis in recent years on liquidity rather than adjustment indicates the increasing erosion of the very discipline and harmonization on which the advocates of fixed exchange rates try to rest their case.

THE CASE FOR FREELY FLEXIBLE EXCHANGE RATES

Consistent application of the principles of a market economy argues for exchange rates that would be free to adjust automatically to chang-

¹ William Fellner, Chapter 2, in *Maintaining and Restoring Balance in International Payments*, ed. by William Fellner, Fritz Machlup, and Robert Triffin (Princeton, N.J.: Princeton University Press, 1966), p. 122.

ing conditions of demand and supply in the foreign-exchange market. Automatic exchange-rate variations would bring about external equilibrium by changing directly and instantly the prices of all commodities in terms of other countries' monetary units. In a system with fixed exchange rates, on the other hand, balance-of-payments adjustments are the result of a long-delayed, roundabout, and painful process through alterations of aggregate spending that exert deflationary and inflationary pressures, often with undesirable consequences for the national economies.

It is easy to ridicule a system with freely fluctuating exchange rates by exaggerating the claims of the advocates of greater flexibility. It can be doubted that the latter really expect that exchange-rate variations would "automatically offset the impact of disparate national policies upon the international pattern of prices and costs . . . without any interference with each country's freedom to pursue whatever internal monetary and credit policy is chosen." (Robert Triffin, *Gold and the Dollar Crisis*, p. 82.) Overstatements like these prevent serious discussion. A system with freely fluctuating exchange rates could not work satisfactorily in a country with endemic inflation, but neither could other payments systems with free convertibility be successful under similar conditions. The very mention of exchange-rate flexibility seems somehow to convey the idea that one would have to expect either self-aggravating depreciations or extremely wide fluctuations or, finally, an irresistible urge to practice competitive exchange depreciation. It is evidently taken for granted that to stray from the virtuous path of exchange-rate rigidity would mean the end of both national monetary discipline and international cooperation.

This view is overly pessimistic. Easing constraints on domestic economic policies may, on the contrary, improve the internal equilibrium of an economy, with beneficial results for the other members of the international payments system. How widely the exchange rates fluctuate will depend on the degree of international economic harmonization that can be achieved under the realistic assumption that each member of the system tries to reach high employment and income levels. The exchange-rate variations needed for the achievement of both external and internal equilibrium may be modest. A system with flexible exchange rates does not postpone the adjustment process and is likely, therefore, to avoid the development of discrepancies that, under a system of fixed exchange rates, may eventually lead to adjustments of parities or the introduction of quantitative restrictions.

Nor does a system of exchange-rate flexibility have to apply equally to all members of the international payments system. Where blocs of

countries manage a high degree of internal harmonization, intra-bloc rates need not fluctuate at all, while between blocs exchange-rate variations may serve as an elastic link.

That countries in a system with flexible rates would pay no attention whatever to their external balances is as unlikely as complete neglect of the national employment situation under fixed exchange rates; nor would floating rates be an invitation to competitive exchange depreciation. Indeed, why should central bankers who have made an excellent record of international monetary cooperation be expected to use beggar-my-neighbor policies as soon as rigid parities are abolished? Why should multilateral surveillance be incapable of solving problems of international monetary cooperation under exchange-rate flexibility? We should remember, furthermore, that the present system of adjustable pegs, with its undervaluation of pegged surplus currencies, comes closer in effect to competitive exchange depreciation than a system that would permit market forces to operate.

However, notwithstanding these arguments in favor of flexible exchange rates, most practitioners and some academic economists strongly believe that complete freedom for exchange-rate variations would mean the end of monetary discipline, that exchange rates would fluctuate wildly and that, far from producing external equilibrium, the system would be injurious to international trade relations and capital flows. Whether right or wrong, these beliefs are too firmly ingrained to permit serious practical consideration of a system of *unlimited* exchange-rate flexibility.

THE BAND PROPOSAL

Rejection of both the present system of adjustable pegs and the system of unlimited exchange-rate fluctuations leaves us with some form of *limited* exchange-rate variations as a compromise between rigidity and flexibility. According to the oldest and best-known version of limited flexibility, the so-called band proposal, exchange rates are to be allowed to fluctuate within a wider range or "band" than the very narrow margins around par values that are permitted under Article IV of the Fund Agreement.

The idea of widening the margins between the so-called gold points under the gold standard system is very old. Robert Torrens, for example, opposed David Ricardo's plan to substitute gold bullion for gold coin with the argument that coin was "a less eligible article for export," permitted wider margins between the gold points and, thereby, greater freedom for domestic monetary policy. (Jacob Viner, *Studies in the Theory of International Trade*, pp. 206-207.) This, we notice, happened

in 1819, when prices and wages were still flexible downward and national-income and employment policies virtually unknown.

Today's monetary authorities, though opposed even to moderately flexible rates of exchange, are not unwilling to make use of small exchange-rate variations permitted by the Fund. Robert V. Roosa, for example, points out that "within the relatively narrow band which is . . . permitted under the rules of the International Monetary Fund, there must be room for market prices to demonstrate the basic strength or weakness of any currency." He also argues, convincingly, that "we want and need the sensitive signals of changes in fundamental forces that are reflected in price fluctuations in free markets." However, while Roosa reasons here implicitly for exchange-rate flexibility, he, nevertheless, expresses the fear that public authorities would come under pressure to manipulate the rates and that this could lead "to competitive devaluation, and on to trade and exchange restrictions." Free exchange markets, therefore, could "degenerate into disorderly chaos if they do not have some fixed point of reference." Since the widened band retains this fixed point of reference, Roosa admitted more recently that "the wider band might some day be of some use."²

The band proposal suggests three fixed points of reference by permitting exchange-rate variations around fixed par values and within predetermined support points. Assuming that a monetary authority maintains a given dollar parity and uses the dollar as "intervention currency," it will supply dollars without limit when the upper support point is reached, thus preventing a depreciation of its own currency unit; similarly, it will stand ready to buy dollars in unlimited amounts at the lower support point to prevent a further appreciation of its own currency unit. The rate of exchange is both fixed and free: attached to the parity as reference point, and free to rise and fall between the support points.

Whether this compromise between rigidity and flexibility favors discipline or freedom will depend on the width of the band, in conjunction with the supply of international liquidity reserves. Relatively small reserves combined with a relatively wide band can have about the same effect as a combination of larger reserves with a narrow band. It would not be correct to say, therefore, that a widening of the band will lower monetary discipline or that exchange-rate rigidity can be relied upon to

² The four quotations are from different sources. The first two are in articles reprinted in *Factors Affecting the United States Balance of Payments*, Joint Economic Committee 87th Congress, 2nd Session, 1962, pp. 328 and 339, respectively. The third is from Roosa's book, *Monetary Reform for the World Economy* (New York and Evanston: Harper and Row, 1965), p. 27. The fourth is from Milton Friedman and Robert V. Roosa, *The Balance of Payments: Free versus Fixed Exchange Rates* (Washington: American Enterprise Institute, 1967).

compel the adoption of policies leading to adjustment. Adjustment and liquidity are to a large extent substitutes. We must remember, though, that extended use of reserves is preferable to fast real adjustment only in the case of temporary and reversible imbalances of international payments; that more deepseated imbalances must be eliminated; and that more flexible exchange rates may be preferable to rigid rates in bringing about both external and internal balance.

The practical success of the widened band will depend on whether or not the permitted exchange-rate variations can perform their market functions while maintaining confidence in the stability of the situation. Only practical experience will tell. It may prove desirable to widen the band gradually as the parties engaging in foreign-exchange transactions gain confidence in the new mechanism. On the other hand, too timid an approach might prevent foreign-exchange variations of the size needed to produce equilibrium, particularly if the new system were not started on the basis of true equilibrium rates for convertible currencies. A general realignment of the member countries' parities might greatly help the transition from the present system to one with a wider band.

HOW THE WIDENED BAND WORKS

The present system of the adjustable peg achieves a pseudo flexibility by permitting large discrete revaluations. The system, in fact, is rigid and brittle. The widened band, on the other hand, would combine smooth adjustments through continuous exchange-rate variations with guaranteed limits to these fluctuations at the support points. The latter would be guideposts, clear signals for the monetary authority to support the adjustment process through domestic monetary policies. But these "interferences" with domestic economic policies would be rare because external adjustment would no longer be delayed as under the adjustable-peg system.

Adjustment of the trade balance through exchange-rate variations would still take time, but its start would be immediate and automatic instead of being postponed for years. Exchange depreciation inside the band will lead to increasing exports and decreasing imports, though, of course, not without a time lag. The exchange rate, therefore, may first tend to depreciate below the long-run equilibrium point for the new market conditions. As Erik Lundberg (*Skandinaviska Banken Quarterly Review*, October 1954) and James E. Meade (in *Factors Affecting the United States Balance of Payments*, pp. 241-253) have pointed out, this temporary excess depreciation will induce private speculation to move funds from the surplus into the deficit currency in expectation of a rebound when real adjustment has taken place. The short-run flow of

private speculative capital will help finance the temporary deficit and thereby prevent an overreaction in the process of trade adjustment when no serious fundamental disequilibrium is involved.

The mechanism of trade adjustment through varying exchange rates needs no elaboration, and postwar experiences suggest that a band of a total width of 10 per cent would in most cases have sufficed to maintain external equilibrium without parity changes or excessive supplies of international liquidity reserves, since the process of adjustment would have been set in motion without delay.

The additional risk in foreign transactions could be taken care of by the forward exchange market. The cost of hedging cannot be a serious consideration in a competitive market economy. This cost, in any case, is less serious than the private and social costs of delays in the adjustment process under a fixed-rate system.

There is no reason to expect that exchange-rate variations within a band of 5 per cent on each side of parity would lead to competitive exchange depreciation or exchange restrictions. On the contrary, it is the present fixed-rate system which, by permitting long periods of over- and undervaluation of currencies, has led to unfair advantages and the introduction of restrictive policies.

BAND PROPOSAL AND CAPITAL MOVEMENTS

The advocates of fixed exchange rates take it for granted that exchange-rate flexibility would be detrimental to desirable international capital movements. They are wrong, at least with regard to short-term movements. The introduction of a widened band would favor equilibrating capital flows and discourage disequilibrating speculation, whereas a system of abrupt adjustments of parities will always be exposed to speculative disturbances.

To understand the connection between exchange-rate variations and short-term capital movements we must first distinguish between non-dilemma and dilemma cases.

Let us assume that a country has reached its state of full employment through the application of expansionist monetary and fiscal policies that have raised prices and made the country less competitive at fixed exchange rates. Full employment has exerted an upward pressure on wages, and a high level of economic activity and national income has stimulated imports further, that is, over and above the increased propensity to import owing to relatively more attractive foreign prices. The full-employment country therefore, will have acquired a deficit in its balance of payments. For similar but opposite reasons, an underemployed

and depressed economy can be assumed to have attained a surplus in its balance of payments.

The combination of internal contraction with external surplus, and internal expansion with external deficit, fits classical assumptions as well as Keynesian theory, for it can be expected that successful employment policies will create external deficits through their price and income effects. The difference between the classical and Keynesian models consists in the emphasis on price effects in the former and income effects in the latter and on different emphases in objectives. The classical model gives priority to external, the Keynesian to internal, balance.

The case in which the deficit country enjoys full employment and the surplus country suffers from unemployment is regarded as a non-dilemma case, because economic policies aiming at external and internal balance need not conflict. The deficit country with full employment can be expected to have high interest rates because of its high level of economic activity, and it may raise these rates in an attempt to combat domestic inflation and to attract short-term foreign funds to eliminate the deficit. The surplus country, by contrast, tries to stimulate economic activity through low interest rates, thereby encouraging an outflow of short-term capital that, owing to the country's surplus position, would create no problems.

In a system with fixed exchange rates, the changing differentials in interest rates between deficit and surplus countries is expected to help adjust national price levels and the trade balance, while the induced international flow of short-term capital helps finance the deficit until the adjustment is completed. Even under the old gold standard (that is, before 1914) the interest-rate differentials were supported by the small exchange-rate variations between the gold points. The exchange rate of deficit country *D* would depreciate temporarily and make it more attractive for speculators in surplus country *S* to purchase *D*-currency, enjoy temporarily the higher interest rate in *D*, and repurchase *S*-currency after equilibrium has been achieved and *D*-currency has returned to parity.

A widening of the band would strengthen these equilibrating short-term capital movements. The capital flows induced by exchange-rate variations alone might even be strong enough to provide the needed foreign funds to finance the temporary external imbalance and give the monetary authorities the opportunity of handling interest-rate changes with greater consideration of the requirements of internal equilibrium. If the central banks were permitted and inclined to intervene inside the band, they could determine the relative dosage of exchange-rate and interest-rate variations.

Now we must turn to the dilemma cases. A dilemma case exists when

the means to achieve internal balance conflict with those needed to attain or maintain external balance. This time the deficit countries suffer from underemployment, while the surplus countries enjoy a high level of economic activity. The co-existence of unemployment and payments deficit may be due to monopolistic pressures forcing prices up even in the face of unemployed resources and inadequate aggregate demand. Another cause for the appearance of a serious dilemma between external and internal balance may be the attempt by a country to make extraordinarily large payments abroad. Such payments may be connected with military aid, economic aid, sudden repayments of foreign loans, the unfreezing of frozen balances belonging to foreigners, reparations, or any other sudden shifts of substantial amounts of capital. This so-called transfer problem is an extreme case of the difficulty that arises when we try to allow international capital movements in economies in which total expenditures, prices, and incomes are inflexible. No international payments system can effect transfers in huge amounts and maintain internal balance for the paying country. The widened band would be no exception to this rule.

What private short-term capital movements can be expected in dilemma cases? The answer depends on the international payments system. We assume, first, a system with fixed, but not unalterably fixed, exchange rates and, second, a system with limited exchange-rate flexibility under a widened band.

When deficit country *D* carries on domestic employment policies by lowering interest rates while surplus country *S*, at full employment, raises interest rates to keep inflation in check, and both countries maintain a fixed parity between their currency units, private capital will flow from *D* to *S* and thereby increase external imbalance for both. This capital flow is clearly disequilibrating. As deficits and surpluses grow, redoubled efforts in *S* to stop inflation and in *D* to increase employment will only lead to further rounds of surpluses and deficits. Something will have to give eventually. Either the internal problem can be solved without worsening the external imbalance or the peg will have to be adjusted—unless exchange controls are introduced.

The first alternative would be the most attractive if it were possible to divorce monetary policies cleanly from fiscal policies or if the credit market could be divided into watertight compartments. In the latter case, the short-term rates of interest could be used to guide international short-term funds in the right direction, while internal adjustment would be left to the long-term rate. Similarly, monetary policy could serve the purpose of external adjustment, while internal equilibrium could be the responsibility of fiscal policy. For example, a surplus country with full

employment, suffering from price inflation, would raise taxes rather than interest rates. So far, however, there is no evidence that we shall be able to separate monetary policies cleanly from fiscal policies or to compartmentalize the credit market effectively.

That it is impossible to compartmentalize the credit market effectively was emphasized by Keynes when he pointed out that credit is undifferentiated and, like water, "will remorselessly seek its own level over the whole field unless the parts of the field are rendered uncompromisingly watertight,—which in the case of credit is scarcely possible." (*A Treatise on Money*, Vol. 2, p. 319.) Recent experiences with the surtax in the United States have made it clear how far removed we still are from a substitution of fiscal for monetary policies for the achievement of both external and internal balance.

It has already been pointed out that peg adjustments and exchange restrictions are undesirable. How successful, then, would a widening of the band for permissible exchange-rate variations in dilemma cases be? Would increased exchange-rate flexibility help restrain the disequilibrating capital flow that is certain to be generated under fixed exchange rates?

As in the case of fixed exchange rates, the interest rate would be low in deficit country *D*, to increase employment, and high in surplus country *S*, to stop inflation. The interest differential, therefore, would still tend to guide the international flow of private short-term capital in the wrong direction. But in a system with exchange-rate flexibility exchange-rate variations would tend to counterbalance the interest-rate differential. The exchange rate of *S*-currency would appreciate, the rate of *D*-currency would depreciate and these changes in exchange rates would reduce, compensate, or overcompensate the profit to be derived from the interest differential. Disequilibrating capital flows from low-interest country *D* to high-interest country *S* would be reduced, stopped, or even reversed by the exchange-rate differential that grows with each additional capital transfer. In other words, market forces would take care of the situation.

WHEN THE "FLEXIBLE" RATE GETS STUCK

Other things remaining equal, the need for international liquidity reserves depends on the success or failure of the adjustment process. In the theoretical case of unlimited exchange-rate flexibility (and no intervention whatever on the part of the monetary authorities in the foreign-exchange market) no international liquidity reserves would be needed. Exchange-rate variations would keep demand and supply continuously in balance. In a system with fixed rates, free convertibility, and poor harmonization of national monetary policies, the demand for international liquidity reserves could be insatiable, particularly in countries

with endemic inflation. The case of the widened band lies in between. The need for liquidity reserves may well be substantially smaller than under the adjustable-peg system. First, because the adjustment process would be promoted by the variations of the exchange rates and, second, because private capital movements would be induced to help finance deficits while the external imbalance lasts. If exchange-rate variations could be kept safely within the band, a small emergency reserve would suffice.

Of course, the band system can fail just as any other international payments system if adjustments by means of exchange-rate variations and by means of monetary measures are not strong enough to counterbalance the disequilibrating forces of diverging national economic policies. But it is not likely that the exchange rates will get stuck permanently at the support points if the system is established on the basis of near-equilibrium rates, if the right width is chosen for the band, and if a reasonable degree of international monetary coordination prevails.

As for the expected length of the adjustment period, it must be remembered that, while the process gets instantly started, the results will not be instantaneous. Before we know how long the adjustment process will take, we cannot regard the clinging of the exchange rates to the support points and the use of international liquidity reserves to maintain convertibility at these points as indications of failure. However, since it is the very essence of the band proposal that excessive delays in the adjustment process are avoided, permanent maintenance of the exchange rates at the support points is not good enough. The system might then be said to have reverted to the present adjustable-peg arrangement.

THE GLIDING PARITY

Before we try to answer the question of what to do when the exchange rates continue to press against the support points of a widened band, it is necessary to investigate other arrangements for the achievement of limited exchange-rate flexibility which go under such names as "sliding parity," "gliding parity," or "crawling peg." Such proposals have been made by James E. Meade (*The Three Banks Review*, September 1964 and June 1966); John H. Williamson (*The Crawling Peg*, Essays in International Finance No. 50, 1965); J. Carter Murphy (*The National Banking Review*, December 1965 and September 1966); E. Ray Canterbury (*Economics on a New Frontier*, 1968); and William Fellner (*op. cit.*). Fellner's essay contains a statement by 27 economists advocating a wider band and a gliding parity.

These proposals have the common idea that very small and frequent

parity changes ought to be substituted for the present system of discrete and, accordingly, large adjustments of the peg. While "gliding parity" and "widened band" are logically distinct systems, most advocates of limited exchange-rate flexibility favor a combination of the two approaches in the form of a "movable band."

Two main advantages are claimed for a gliding parity: first, that exchange-rate adjustment will in each case be very small (for instance, only 1/6 of one per cent in any one month) so that dangerous disequilibrating capital movements will be reduced to manageable proportions; and, second, that frequent but small adjustments would under specified conditions of disequilibrium be permitted to continue beyond predetermined limits so that the gliding parity could correct for disparities in national monetary policies that cannot be harmonized within the widened band.

Proposals for small but frequent adjustments of parities must answer questions like: (1) How frequently are the parities to be changed and what are the limits for each individual adjustment? (2) Under what conditions are the member countries of the system to change their parities? (3) Are these changes to be automatic or discretionary? (4) Are they to be unilateral or subject to approval by the International Monetary Fund? (5) Is the gliding parity designed to eliminate fundamental disequilibria which have been permitted to develop or is it to prevent such developments through prompt parity changes? (6) How can disequilibrating speculation, the bane of the adjustable-peg system, be avoided?

The proposal for a gliding parity could be interpreted as an attempt to improve the system of parity changes that was to be the mainstay of the international adjustment mechanism of the Keynes Plan of 1943. Keynes proposed that the value of the currencies of the members of a Clearing Union should be fixed, but not unalterably, in terms of an international unit called *bancor*; that there should be an orderly and agreed method of determining the relative exchange values of national currency units; and that the system be possessed of an international stabilizing mechanism. This mechanism was to rest predominantly on relatively frequent parity changes. If a member's deficit balance with the Union exceeded a quarter of its quota on the average of at least two years, the member would be entitled to reduce the value of its currency in terms of *bancor*, provided that such reduction did not exceed 5 per cent, without the consent of the Governing Board of the Union. Since it would take some time to reach this deficit level, Keynes' order of magnitude comes close to that of the new suggestions (for instance, 2 per cent per annum, according to Meade and Williamson). The differ-

ence lies in the fact that the more recent plans for a gliding parity divide parity adjustments into small and, accordingly, frequent installments.

Keynes proposed further that a member that reached a debit balance with the Union equal to one-half of its quota could be requested to devalue and to control outward capital movements. A member whose credit balance exceeded one-half of its quota on the average of at least one year should discuss with the Governing Board "the appreciation of its local currency in terms of bancor, or, alternatively, the encouragement of an increase in money rates of earnings." The Keynes Plan "aimed at putting some of the responsibility for adjustment on the creditor country as well as the debtor." Considering that a surplus country's obligation to accept bancor checks would have been limited not by its own quota but by the aggregate deficits of its potential debtors, the Keynes Plan stressed upvaluation more than devaluation.

Keynes was aware that the proposed adjustment mechanism through parity changes—directly geared, as the latter were, to deficit and surplus balances with the Union—would have created a climate of disequilibrating capital movements and could not have worked without the control of speculative short-term capital movements, "both inward and outward." He never explained how these controls could have been administered in an international payments system that aimed to support multilateralism through currency convertibility.

The new gliding-parity proposals try to eliminate disequilibrating capital movements without the imposition of exchange controls. The individual parity adjustments would be so small that speculation could be kept in check by differentials in national short-term rates of interest. However, difficulties might arise, once again, in the so-called dilemma cases where a country whose currency is to be devalued does not want to raise the interest rate because of its unsatisfactory employment situation, and a surplus country, under inflationary pressure, is reluctant to lower its interest rate to compensate for an upvaluation of its currency.

Proponents of a gliding parity argue for frequent but small and strictly limited parity adjustments. They fear that a freely floating rate could lead to self-aggravating speculation and also that a system with freely fluctuating rates lacks the political virtue of "acceptability." The proposed schemes differ in detail but all make it clear that the momentarily given rate can change by no more than a very small amount within a specified period.

In James E. Meade's proposal, the present IMF rules would be revised in the following way: "Basic adjustments to meet a fundamental disequilibrium would be hedged around with even more safeguards and would be made even more exceptional than at present. The allowance

of an initial 10 per cent adjustment would be abolished; but in its place member countries would be permitted to alter the par value of their currencies by not more than $1/6$ per cent in any one month; moreover, they would undertake to depreciate their currencies by $1/6$ per cent in any one month if, but only if, they were faced with a continuing balance-of-payments deficit and to appreciate by this amount if, but only if, they were faced with a continuing surplus in their balance of payments. This system might perhaps be called that of the *Sliding Parity*. For if the right to change the parity were exercised every month, the exchange value of the currency would be changed continuously at 2 per cent per annum." (*Op. cit.*, 1966, p. 22.)

Similarly, John H. Williamson suggests that the members of the International Monetary Fund undertake that any changes in par values needed to correct a fundamental disequilibrium "would be carried out gradually, at a maximum rate of $1/26$ of one per cent per week, rather than in a sudden discrete jump." (*Op. cit.*, p. 2.)

Both Meade and Williamson recognize that an incentive will exist to transfer funds from a currency undergoing devaluation to a currency undergoing upvaluation, and both suggest that this tendency may have to be neutralized by interest-rate differentials. We have already seen that in a dilemma situation the creation of an artificial interest-rate differential is undesirable from the standpoint of reaching or maintaining domestic economic equilibrium. Meade, therefore, hopes that the national authorities can "rely on budgetary policies and—in so far as they can be determined independently of short-term rates—upon long-term rates, for the control of domestic economic expansion." (*Op. cit.*, p. 23.) However, the use of artificially created interest-rate differentials tends to reduce or eliminate one of the advantages of exchange-rate flexibility: far from being partially freed from attention to the country's balance-of-payments position, national monetary and fiscal policies would often be constrained by the necessity to prevent disequilibrating capital transfers.

To eliminate this potential difficulty, J. Carter Murphy suggests that the parities be permitted to change daily, the parity being calculated as the moving average of the closing market prices on the 307 previous business days. Since the daily market price would be strictly limited to a band of a total width of only 3 per cent, Murphy believes that the maximum parity changes "should be such as to make speculation a relatively unremunerative activity." He assumes, however, that both countries are able "to avoid policies which create continuous uni-directional disturbances to exchange markets." (*Op. cit.*, 1965, p. 102.)

We have already seen that Meade proposes that even small parity

changes should take place only if the member countries are faced with a continuing deficit or surplus in their payments balances. This definition implies that a disequilibrium develops quite visibly and that it is then worked off in small but frequent installments. The same situation is even more clearly indicated by Williamson's assumption that a fundamental disequilibrium exists, that the parity is slowly adjusted to the proper level, and that the authorities will even announce by which total amount the parity will have to be changed over the next few years.

The Meade-Williamson proposals would leave little doubt as to the coming development of certain parities, while Murphy's calculation of the daily rates would not only make the development of the parities obvious but might even produce wrong rates for present conditions, owing to his formula's exclusive emphasis on past conditions.

If unidirectional deviations of national economic policies cannot be avoided and shifting parities are used, the problem of disequilibrating speculation could perhaps best be solved by a system which makes it impossible for the private speculator to gauge with accuracy the speed, extent, and, perhaps, even the direction of coming parity changes. For this purpose a somewhat ambiguous adjustment formula would have to be used.

E. Ray Canterbury suggests a method to determine a basic disequilibrium that would be less likely to inform would-be speculators about coming parity changes. A monetary-reserve-base coefficient would express weekly reserve losses as shares of a given base-reserve value. The formula could be altered from time to time and would be secret. (*Op. cit.*, pp. 212-216.)

It will prove difficult to construct a formula for measuring imbalances that are equivalent to small permitted parity changes. Such a formula for the fine-tuning of parities will be so hard to find that it seems more likely that the gliding parity is not meant to maintain international balance continuously as a floating rate would, but rather to work off gradually larger, and therefore more obvious, disequilibria in small and frequent installments of parity changes.

THE MOVABLE BAND

Most advocates of a gliding parity want to combine it with the widened band for permissible exchange-rate variations. This combination can be recommended, unless we are afraid that the simultaneous use of band and gliding parity would seriously weaken the firm guidance for national monetary policy which we hope to gain from *fixed* support points.

Both proposals rest on the same arguments against the present system of fixed, but not unalterably fixed, exchange rates. It makes sense to

combine the gliding parity with the widened band when we assume that unidirectional deviations of national monetary policies will exceed the adjustment capabilities of a widened band. For the same reason it makes good sense to consider the widened band as the first step on the road to greater exchange-rate flexibility and the gliding parity as the second step.

The proposal for a movable band contains part of the answer to the question of what should be done when the exchange rates press for too long against the support points of a widened band. In this state of international payments disequilibrium the following measures might be considered:

(1) Redoubled efforts to push the parities back inside the band through application of domestic monetary policies.

(2) Encouragement of equilibrating private capital movements.

(3) Arrangements for larger official international liquidity reserves to be able to correct international imbalance "without resorting to measures destructive of national and international prosperity." (These are the words of the International Monetary Fund, *Articles of Agreement*, Art. I-v.)

(4) Insistence that all equilibrating policies be symmetrical, that is, that the surplus countries bear their proper share of any adjustment burden.

(5) Adjustment of parities in very small steps, both up and down, to compensate for shifts in the purchasing-power parities of the members which exceed the compensatory effects of exchange-rate variations inside the band.

(6) Arrangements for these parity shifts by the International Monetary Fund with the fullest cooperation of the members, whether in deficit or surplus, so that disequilibrating capital movements can be avoided and the fear of competitive exchange depreciation assuaged.

(7) Harmonization of domestic monetary policies so that the remaining divergencies do not exceed the combined adjustment powers of the widened band and the gliding parity.

MOVABLE BAND AND RESERVE CURRENCY

A widened or even a movable band could be introduced with greater ease if all members of the international payments system were essentially equal as to importance and position in the system. The International Monetary Fund was not designed for the use of reserve currencies and the Keynes Plan excluded explicitly such use of national currencies apart from working balances. In the present system, however,

foreign-held dollar (and sterling) balances are indispensable, and growing dollar balances raise a confidence problem resulting from the deterioration of the net-reserve position of the United States. Furthermore, while other countries are able to change their parities in the case of a fundamental disequilibrium, the reserve-currency position of the dollar rules out a dollar devaluation for fear of a run on gold and precipitation of a world-wide liquidity crisis.

This situation seems to argue for the maintenance of fixed exchange rates rather than for a change-over to flexibility, at least until the present system has been liquidated or rendered innocuous. Notwithstanding the forthcoming creation of Special Drawing Rights, we must, therefore, answer the question how a wider band or even a gliding parity could be introduced today. How can confidence in the dollar be maintained if the dollar is permitted to fluctuate more widely in terms of other currencies?

The other members of the system maintain their parities by using the dollar not only as common denominator but also as intervention currency. Their monetary authorities sell dollars to avoid a depreciation of the national currency (or an appreciation of the dollar) and buy dollars to prevent an appreciation of the national currency (or a depreciation of the dollar). Today they intervene at support points that deviate from the official dollar parity by less than one per cent while under the widened band they would intervene when the margin has reached, for example, 5 per cent. Assuming that, at any particular moment, country *A* supports the value of its currency at the lowest support point and country *B* its currency at the highest support point, they would each differ in opposite directions by 5 per cent from the dollar parity, but differ from one another by 10 per cent. We note, furthermore, that with a complete reversal of the balance-of-payments position of *A* and *B* a change of about 20 per cent would occur in their respective positions.

This doubled width of the band can be shown by the following example. Under assumed par values of 1 U.S. dollar = 5 French francs = 4 Deutsche marks and permissible exchange-rate variations of 5 per cent up and down:

lowest rate of Fr.fr.:	\$1 = Fr.fr. 5.25
highest rate of Fr.fr.:	\$1 = Fr.fr. 4.75
lowest rate of D.M.:	\$1 = D.M. 4.20
highest rate of D.M.:	\$1 = D.M. 3.80

When the French franc is at its lower and the Deutsche mark at its higher limit, Fr.fr. 5.25 = D.M. 3.80, or D.M. 1 = Fr.fr. 1.38. When the French franc rises to its upper limit and the Deutsche mark falls to

its lower limit, Fr.fr. 4.75 = D.M. 4.20, or D.M. 1 = Fr.fr. 1.13. The total variation of the French franc between \$1.38 and \$1.13 is \$0.25, or 18.1 per cent of \$1.38 and 22.1 per cent of \$1.13.

But what is true for currencies *A* and *B* would not be true for the dollar with which foreign monetary authorities carry out their interventions and to which they peg their currencies. Playing the role of international money as means of exchange (transaction and intervention currency) and unit of account (common denominator), the dollar finds itself internationally in a special position. When currencies *A* and *B* are in extreme and opposite positions, they are 10 per cent apart, while the dollar as common denominator can differ from any other currency by not more than 5 per cent or one-half of the width of the band. As long as the dollar is used as intervention currency it can never fluctuate except via permitted fluctuations of other currencies.

The widened band, therefore, would not quite eliminate the element of asymmetry which is connected with the role of the dollar as intervention currency. Today all Fund members except the United States enjoy the potential use of the safety valve of peg adjustments in the case of fundamental disequilibrium; and under a widened band the adjustment possibilities via exchange-rate variations for the United States would only be one-half of those of other members of the Fund. Should the United States nevertheless welcome a widened band?

An affirmative answer would have to consider that the present situation of the United States also implies certain advantages. The role of the dollar as reserve currency also means that all surplus countries stand ready to buy dollars in unlimited amounts when an oversupply of dollars must be taken off the market to prevent an appreciation of the surplus currencies. This means automatic financing of payments deficits of the United States through automatic accumulation of official foreign dollar balances. If the band for permissible exchange-rate variations is widened while the dollar is still used as reserve currency, the effect on the United States will be in the nature of a compromise. The regular advantage of the widened band, that is, its beneficial adjustment effects on trade and capital flows, would be limited to one-half of the potential maximum effect for other countries; but to the extent that surplus countries would have to buy dollars at the margin, they would still finance a remaining deficit of the United States. A quasi-automatic supply of liquidity for the reserve-currency country compensates for the more limited elbow-room for exchange-rate adjustments.

Technical difficulties could arise if the band were widened while the gold value of the dollar remained relatively fixed as at present. The dollar could depreciate and appreciate in terms of other currencies by

as much as 5 per cent, but in terms of gold by only one per cent. Accordingly, it would seem that central bankers would prefer gold to the dollar as the safer reserve asset or that, in the case of an expected dollar depreciation, they would move into gold and, in the case of a dollar appreciation, into dollars. However, we ought to be able to assume that considerations other than mere security or profitability will prevail.

The following arguments attempt to show that the maintenance of gold convertibility of the dollar at the present rate need not prevent the introduction of a wider band or even the adoption of a gliding parity.

(1) The present gold policy under which the London gold market is no longer supplied out of official gold holdings would have to become a permanent feature of the international payments system.

(2) A well-functioning system of exchange-rate flexibility within a widened band would leave the average value of private and official dollar balances unchanged as the balance-of-payments positions of the member countries tend to reverse themselves again and again, owing to the adjustments brought about by exchange-rate variations and by remedial monetary policies. Thus there would normally be no reason for central bankers to change dollars into gold.

(3) Other things remaining equal, dollar balances are more attractive than gold. The interest earned on these dollar balances will more than compensate for the losses from modest and temporary dollar depreciations.

(4) Should it be necessary to move the band, the proposed limit of 2 per cent per annum would still be within the range in which losses in gold value can be compensated by earnings of interest. The interest rate to be paid on official dollar balances could be adjusted correspondingly. The criticism that the credit market cannot be compartmentalized would not apply because the arrangement would be limited to transactions with central banks.

(5) In view of a possible movement of the band extending over years (at 2 per cent per annum) without reversing itself, a gold-value guarantee of official dollar balances could be considered.

QUESTIONS FOR DISCUSSION

The introduction of a system of limited exchange-rate flexibility requires the thorough discussion of many questions. Vague fears must be dispelled, transition difficulties overcome, and choices made between several versions of limited flexibility. The cost of experimenting can be reduced if the whole problem is viewed from several angles before practical work begins.

The lacking adjustment mechanism

If the present system has been working adequately, why the repeated international monetary crises, the disalignment of exchange rates, and the introduction of exchange restrictions? Whatever the reasons, can we hope to eliminate the causes of external imbalance while maintaining rigid exchange rates? How long can we shore up the present system by *ad hoc* arrangements? Would the introduction of Special Drawing Rights eliminate the major weakness of the present system—the absence of a functioning adjustment mechanism?

Fixed exchange rates

Why should we be justified in violating the basic principles of the market economy in the foreign-exchange market? Why should this important market not perform the function of equilibrating demand and supply? Why should it be immune to the known dangers of price control? Can fixed exchange rates have their claimed disciplinary effect on national monetary policy (1) if full employment is the primary concern of national economic policy, (2) if international liquidity reserves are very large, (3) if the financing of balance-of-payments deficits is guaranteed for the country whose money serves as intervention currency, (4) if the parities can be changed in the case of “fundamental” disequilibrium? If monetary discipline cannot be relied upon, can the desired results be achieved by an incomes policy?

Freely fluctuating exchange rates

If price signals are needed in the foreign-exchange market, are the presently permitted margins sufficient? Precisely, why should freely fluctuating exchange rates lead to (1) wide price variations, (2) self-aggravating speculation, (3) destruction of monetary discipline, (4) competitive exchange depreciation? How do reserve losses and exchange-rate variations compare as signals on which to orient responsible monetary behavior? Why must it be taken for granted that international monetary cooperation will cease to operate as soon as exchange rates are permitted to fluctuate?

The band proposal

Could a wider band for permissible exchange-rate variations combine the discipline of a fixed parity with sufficient flexibility inside the band? Would the argument for a widened band still hold if the parity were permitted to glide? How much would the band have to be widened to provide an adjustment mechanism for international trade? Would a

band of a total width of 10 per cent have avoided the imbalances of the last 10 years? Would the width of the band needed for trade adjustment be compatible with confidence in the international payments system? Assuming that exchange rates have become disaligned under the present system, would the introduction of a wider band have to be preceded by a general realignment of parities or should the width of the band be so generous that existing deviations of parities can be absorbed without exhausting the newly permitted flexibility? Would it be desirable to begin with a modest widening of the band, for example, a doubling of the presently permitted range, and then to continue to broaden the band as experience and confidence is gained? Would private speculation tend to be equilibrating or disequilibrating? How effective and how expensive would hedging operations be? Must we assume that private and social costs connected with greater exchange-rate flexibility will be greater than those of the present system? Should exchange-rate variations between fixed support points be completely free or should the monetary authorities be permitted to intervene even before the support points have been reached? How could surplus countries be induced to let their currencies appreciate?

The gliding parity

Should parity adjustments be permitted under carefully defined circumstances, provided that these adjustments are very small and frequent? Under which conditions should these adjustments be permitted? Should they be quasi-automatic or depend on permission by the IMF? Can an adjustment formula be found precise enough to permit measurements whose exactness matches the smallness of the permitted changes or are these small and frequent changes only meant to give the quality of gradualness to contemplated large parity adjustments? How can disequilibrating speculation be avoided in a gliding-parity system? Can speculative capital flows be prevented by artificial interest-rate differentials? Are these differentials compatible with the desired freedom for domestic monetary policy? Can domestic economic policy rely exclusively on fiscal instruments so that the monetary instruments are available for the achievement of external balance? Should the monetary authorities intervene so as to make the direction and degree of parity changes less obvious? Could a gliding-parity formula be precise enough to serve international monetary cooperation, yet vague enough to prevent anticipation of parity changes by private speculators?

The movable band

Should widened band and gliding parity be combined in a movable

band? Would a movable band seriously weaken the guidance of monetary policy that is to be gained from fixed support points? Should the widened band be considered a first step toward limited exchange-rate flexibility and the gliding parity be introduced, as a second step, when the exchange rates get stuck at the support points? How can surplus countries be induced to let their parities glide upward when the formula demands?

Widened band, gliding parity, and the dollar:

How can widened band and/or gliding parity be introduced into the present international payments system? How would the dollar in its role as reserve, transaction, and intervention currency be affected? Could a widened or a movable band be introduced while gold convertibility of the dollar at \$35 an ounce of gold is maintained? Assuming that the dollar as intervention and reserve currency cannot move as much and as freely as other currencies, could the United States be satisfied with one-half the width of the band that is enjoyed by other countries? Would the automatic borrowing rights enjoyed by the United States compensate for this restriction? Would the introduction of a widened or a movable band reduce or increase the need for international liquidity reserves? What changes in the Articles of Agreement of the IMF would be implied?

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