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AN AGENDA FOR MONETARY REFORM

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INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

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An Agenda for Monetary Reform*

The agreement reached in Washington on December 18, 1971, dealt with two important matters. It provided a breathing spell by realigning the rates of exchange among the currencies of the major industrial countries and widened the margins within which the market rates were allowed to fluctuate around the new "central rates" or informal parities to 2.25 per cent on either side of the central rate.¹ However, most of the questions pertaining to the structural reform of the international monetary system that was finally rendered unavoidable by the American measures of August 15, 1971, were deferred. A communiqué announced:

The Ministers and Governors agreed that discussions should be promptly undertaken, particularly in the framework of the IMF, to consider reform of the international monetary system over the longer term. It was agreed that attention should be directed to the appropriate monetary means and division of responsibilities for defending stable exchange rates and for insuring a proper degree of convertibility of the system; to the proper role of gold, of reserve currencies, and of Special Drawing Rights in the operation of the system; to the appropriate volume of liquidity; to re-examination of the permissible margins of fluctuation around established exchange rates and other means of establishing a suitable degree of flexibility; and to other measures dealing with movements of liquid capital.

Before detailed official discussions on these subjects begin, it may be useful to take an over-all look at them here, with special attention to their interconnection.

History Repeats Itself

The successive monetary systems have come into being mainly by a process of spontaneous evolution, and without purposeful direction and decision aimed at deliberately creating the system on the basis of a well-defined plan. This is evident even from the most summary look at history.

* This essay is a version, revised in the spring of 1972, of a paper read on February 23, 1972, in New York at a seminar of the United Nations Institute for Training and Research. It is based in part on the active thinking that has been going on in recent months, and is still going on, within the International Monetary Fund. This thinking and these discussions have not yet led to firm positions and convictions; for this reason, the exposition does not attribute specific suggestions to specific persons. The author, too, wishes to stress the provisional nature of his views as set forth here.

¹ Since the monetary price of gold was increased to \$38 per ounce in terms of dollars, but decreased in terms of other currencies, the average gold price remained approximately unchanged.

The gold standard emerged from a series of partial decisions in different countries, with no considered agreement on the question of whether gold, silver, or bimetallism should serve as the basis of the world's monetary system. The establishment of the gold standard in England, which led the way, was influenced decisively by the failure of a series of measures, inadequate in the light of Gresham's Law, to retain *silver* rather than gold as the standard metal. After the principal European countries moved to the gold standard shortly after 1870, largely as a matter of prestige, the debate on whether bimetallism was not after all preferable to gold continued until about 1890, when the discovery of the rich gold mines of Transvaal put an end to the prevailing gold shortage and thereby to the debate. France, conservative as always in monetary matters, kept promoting the role of silver as much as the circumstances permitted, both domestically and in the Latin Monetary Union, where it occupied a predominant position. There was no official doctrine at all concerning regulation of the deposit money created by the commercial banks, although it increasingly dominated domestic money circulation. Indeed, the money-creating role of the commercial banking system was not generally recognized until the twentieth century. The financial management of these private banking institutions was based, for a long time, on rules of thumb developed in practice.

Nor did the gold-exchange standard, which succeeded the gold standard, stem from a deliberate decision to introduce such a system. It developed spontaneously toward the end of the nineteenth century, particularly in transactions between the European mother countries and the Asian colonies, where silver had remained predominant. To be sure, the League of Nations recommended the system for some years after 1922, while the United Kingdom promoted the role of the pound sterling as a reserve asset. But the enormous expansion of the gold-*dollar* standard after 1945 came into being quite spontaneously, parallel to the system designed at Bretton Woods, as a result of the postwar economic power of the United States and the concentration of 70 per cent of the world's monetary gold stock in that country.

The suspension of the convertibility of the dollar into gold on August 15, 1971, together with the Washington agreement of December 18, 1971, on the realignment of exchange rates, to be maintained for the time being by means of official intervention with inconvertible dollars, has now ushered in the full-fledged dollar standard.

The fact that we have arrived at the dollar standard as the result of a temporary and partial solution of a problem is no reason to underestimate the importance of this development. After his thorough study of the development of the gold standard, Mertens (1944) concluded:

It has definitely been one of the most tenacious illusions of the authorities to believe that by postponing final decisions and by resorting to temporary and emergency measures, they were preserving their freedom of action for the future. But we have repeatedly noted, on the contrary, that the authorities, in so doing, found themselves being carried along by these temporary measures in a development that led to results which they had by no means expected or wanted.

We should by no means exclude the possibility that we shall now once again witness this oft-repeated phenomenon. But neither may we exclude the possibility of exerting a positive influence on the evolutionary process. There exists today a widespread understanding of the interrelationships of the present problems of the international monetary system, as well as an institutional framework that makes possible intensive international consultation and cooperation. The establishment in 1969 of the Special Drawing Right (SDR) facility as a supplement to existing reserve assets and the creation and use of this new reserve asset during the first "basic period" 1970 through 1972 constitute a striking example of what can be achieved by constructive international collaboration.

Alternatives

Any attempt to turn back the clock and return to one of the previous systems runs counter to the nature of the evolutionary process. The *gold standard* belongs to the past. A return to it is not only impossible, it is undesirable. Given the responsibilities that governments everywhere have assumed for the course of their national economies, a linking of monetary policy to the quantity of gold that becomes available for monetary purposes—as the chance result of gold production, Soviet gold sales, and private, including speculative, demand for the metal—would be objectionable. The *gold-exchange standard* has just succumbed to the ailment that liquidity creation under that system undermines the financial strength of the reserve center—the pound in 1931 and the dollar in the 1960's and the beginning of the 1970's. The *dollar standard* is unacceptable. There is general agreement—shared by the U.S. authorities—that the international monetary order should not be based upon a single currency. Other countries would, to a large extent, have to follow U.S. monetary policy or protect themselves against the consequences of U.S. policy by changing their exchange rates and/or instituting exchange controls. Different countries might make different choices, so that we would get a dollar bloc with fluctuating rates and exchange controls between the currencies of the dollar bloc and the other main industrial countries. While such an outcome is by no means the most unlikely, it is, for rea-

sons more fully developed in the final part of this essay, definitely undesirable.

We shall therefore have to look for alternatives. In what follows, the outlines of one such alternative are sketched. As the scheme presented builds largely upon the SDR, it might be called an *SDR standard*.

Restoration of the Convertibility of the Dollar

The present difficulties were fully exposed by the suspension of the convertibility of the dollar into gold. A first question, then, is whether the system could be made to work again by restoring convertibility, that is, by returning to the gold-dollar standard. But, as already indicated, this is both impossible and undesirable.

It is impossible because it was precisely the steady erosion of the international financial position of the United States under the gold-exchange standard that forced the country to suspend convertibility on August 15, 1971. The U.S. gold stock amounts to no more than \$10 billion; the dollar balances in foreign official hands alone amount to nearly \$50 billion. The United States is broke and, as the Dutch saying goes, you cannot pluck feathers from a frog. The United States is no longer able to assure the convertibility of the dollar in its old form. It is conceivable in theory that the United States would be able to restore its financial position through an extended period of payments surpluses, and it would certainly be a mistake to assume that the U.S. balance of payments can show only a deficit. However, for a long time a U.S. surplus would lead only to a reduction in the dollar balances held as reserves by other countries, not to an increase in the U.S. gold stock. Moreover, it is unlikely that the other countries would put up with substantial U.S. surpluses continuing for years, since that would imply large and continuing deficits on their part. Besides, the imbalance between U.S. short-term debts and available assets would continue for a considerable period of time, in spite of American surpluses, so that it would in any case be necessary to come to an arrangement with respect to existing dollar balances in official hands.

A return to the gold-exchange standard is, moreover, undesirable. The system has proved to be unstable as a result of the simultaneous existence of a number of reserve assets, and the consequent incentives for destabilizing switches out of one asset and into another under changing circumstances. Efforts have been made to combat this instability by freezing exchange rates, especially those of the reserve currencies, with the result that the devaluation of both sterling in 1967 and the dollar in 1971 came years after they had become necessary, at great cost to the

balance-of-payments adjustment process. We shall come back to these problems.

In addition, a return to the gold-exchange standard would be a return to a system that does not permit of international control over the creation of international liquidity. Such control—one of the aims of the introduction of the SDR system, as reflected in Article XXIV of the Fund's Articles of Agreement—is thwarted under this system by the creation of liquidity in the form of the accumulation of dollar balances by other countries in the event of an American payments deficit, and the destruction of international liquidity in the opposite case. The enormous creation of international liquidity in 1970 and 1971 illustrates the point. In those two years, SDRs were allocated in the amount of \$3.5 billion and \$3 billion, respectively. The U.S. deficit, however, resulted in an additional creation of international liquidity of \$8 billion in 1970 and of no less than \$27 billion in 1971. Thus the actual increase in international liquidity far exceeded the planned increase.

The situation in which the United States can finance balance-of-payments deficits by providing its creditors with its own freshly printed dollars must end. But its counterpart must be that the United States receives payment in the form of reserve assets when in surplus and does not merely see its liabilities decline. Otherwise, the system is unacceptable to the United States in practice and unworkable in theory, since the United States would lose reserve assets when in deficit but would not earn any when in surplus, so that its reserve holdings could only decrease further.

Consolidation

Consolidation of existing dollar balances can eliminate the instability of the gold-exchange standard, permit control over liquidity creation, and allow the United States to earn reserve assets. In this connection, two matters must be clearly distinguished. In the first place, a *demonetization* of excess dollar holdings is called for. There are good reasons for assuming that the enormous rise in total international reserves during the last two years (from \$78.2 billion at the end of 1969 to about \$130 billion² at the end of 1971, a rise of more than 50 per cent) has led to an excessive supply of international liquidity. The demonetization could be effected by transforming these excess dollar balances into bilateral long-term loans to the United States. The rest of the dollar balances, representing a need for monetary reserves on the part of their holders,

² 120 billion if expressed in SDRs, that is, after correction for changes in value due to exchange-rate changes.

would be *turned over to the IMF in exchange for SDRs* to be created especially for this purpose.

These SDRs would have to have the same properties as the SDRs now existing, or, if changes within the new framework proved necessary (e.g., regarding the rate of interest or the rules concerning acceptance limits, designation, requirement of need, and reconstitution), these changes would have to apply to all SDRs. For we have to face the operation of Gresham's Law, this time in the international sphere, and it is therefore necessary to reduce the number of reserve assets.

It would be necessary to convert into SDRs not only all dollar balances, but also all official sterling balances and French franc balances, as well as official balances accumulated recently in other currencies. However, we shall no doubt come up against the problem that a rather sizable number of countries consider themselves so closely linked to either the U.S. or the British or the French economy that they will be unwilling to exchange their dollars, pounds, or francs for SDRs. This preference for reserve currencies is connected with the close relations maintained with the money-market and capital-market institutions in the reserve centers, with certain privileges regarding access to the capital market or development aid, and so forth. The management of their dollar reserves by New York banks, for example, provides some smaller countries with an introduction to those institutions that is of value to them when negotiating loans in New York on behalf of governmental or semi-governmental institutions. The same holds true for London and Paris.

Hence, although participation by all countries would be preferable by far, and would considerably strengthen the system, we may have to limit ourselves to an arrangement in which only the major trading nations take part. But their participation will have to be complete if a workable system is to be achieved.

Complete freedom as to the composition of their reserves would be impossible for the smaller countries as well; the operation of Gresham's Law is too pernicious to allow it. In the past, the weapon chosen to counter the prejudicial effect of conversion of one reserve asset into another under the operation of that Law has been to limit convertibility. This has been done for the sterling-area countries by means of agreements between them and the United Kingdom on the maintenance of a Minimum Sterling Proportion in their reserves, and has now been followed by the suspension of the convertibility of the dollar into gold. Hence, countries unwilling to exchange their dollar, pound, or franc balances for SDRs would have to acquiesce in an arrangement stipulating that their balances would in the future be converted into SDRs by the reserve center only for the purpose of covering actual deficits outside the dollar, sterling,

and franc areas, respectively, and not for the purpose of changing the composition of the reserves. Furthermore, countries choosing to continue to belong to a given currency area would have to bear the full risk (sometimes positive, sometimes negative) of changes in the par value of their reserve currency. As a consequence of these stipulations, the United States, the United Kingdom, and France would have to settle the balance-of-payments position of the entire dollar, sterling, and franc areas, respectively. For the sterling and franc areas, this is already the case.

Such a consolidation arrangement will have a chance of success only if there is willingness to consolidate. Seeing to it that the exchange of reserve currencies into SDRs does not result in a loss of interest payments received will foster this willingness. Hence, the rate of interest on SDRs should be increased; it should be harmonized with the yield obtainable in the principal reserve centers, New York in particular. In fixing the interest rate, account will also have to be taken of the advantage (or disadvantage) of holding reserve assets denominated in SDRs.

The working of Gresham's Law also makes it necessary to have a look in passing at the position of gold in the system. With the gold price on the free market much higher than the official price of gold, central banks will show great reluctance to part with their gold at \$38 an ounce in official transactions. Gold reserves (and SDRs) thus become frozen, as monetary authorities try to pay in "bad money." This situation is unlikely to last indefinitely, however, and the central bank of a country in deficit will sooner or later be tempted to sell some of its gold on the free market and use the proceeds to support its currency. If this pattern were to prevail, gold would gradually be demonetized, and the bad money would drive out the good. But in the framework of the changes in reserve holdings proposed above and in intervention technique proposed below, it might become necessary to arrive at a more orderly policy of gold demonetization; such a policy would also avoid the new liquidity explosion that would occur if monetary gold were sold and subsequently revalued at a price considerably higher than the present official price of \$38 an ounce. Gold stocks could be turned over to the IMF in return for SDRs on a voluntary basis but otherwise in the same way as proposed for the reserves in the form of national currency. Through gold sales on the free market when necessary, the Fund could use this gold to avoid or reduce a wide spread between the monetary and the commodity price of gold, thus bringing about a gradual and orderly demonetization of present monetary gold stocks. The profits accruing from such sales of gold somewhat above the official price could be handed over to the participating countries, in proportion to the gold

deposited with the Fund. A less radical alternative would be for the Fund to keep the gold acquired by it under the scheme. Monetary gold would thus tend to become concentrated in the Fund, and this might increase confidence in the SDRs issued by it. A country leaving the Fund would have the right to buy back the gold it had deposited.

A further question to be considered is what is to be done with the considerable dollar, pound, and perhaps franc balances that the IMF would receive under the consolidation arrangement. Since what is involved here is the counterpart of credit that the reserve centers have received, the obvious course is to ask for repayment of these credits. Since it would not make sense to bring about sizable balance-of-payments fluctuations, such amortization payments would have to be spread out over an extended period of time, say thirty or perhaps even fifty years. The redemption payments would be made in SDRs earned and accumulated by the former reserve centers in the course of their normal transactions.

Debt amortization through payment of SDRs to the IMF leads to a destruction of liquidity. From the monetary point of view alone, therefore, amortization is by no means necessary; on the contrary, it raises the question of how this destruction of liquidity is to be compensated for. Compensation could be achieved by an extra allocation of SDRs to all participants in the amount of the amortization payments. Or this extra allocation of SDRs could be used for an internationally agreed objective such as the financing of development aid, thus giving the developing countries a direct and concrete interest in the reform of the system. The advantage of this form of utilization of SDRs for the financing of development aid in comparison with other ways of doing so is that fixed amounts are involved, namely, the amortization payments to be made. Consequently, the determination of "international monetary policy," that is, the decision-making process as to the volume of the creation of new SDRs, is not encumbered by a conflict of interest between countries. Such a conflict would clearly arise if newly created SDRs, that is, SDRs created other than by way of compensation for SDRs received in payment by the IMF as amortization, were to be used for the financing of development aid.

By a consolidation scheme along the lines sketched above, symmetrical financing with reserve assets of surpluses as well as deficits by the present reserve centers would come within reach. In this important sense, the convertibility of the dollar would be restored and that of the pound sterling and the franc maintained. Two preconditions would, however, have to be met. In the first place, the reserves of the United States would have to be restored to an appropriate level. A long-term reserve loan might prove necessary for this purpose. In the second place, new deficits

on the part of the reserve centers would have to be avoided by arrangements ensuring that exchange rates were being kept at realistic levels. This brings us to the requirements that the exchange-rate system should meet.

The Exchange-Rate System

The exchange-rate system that was in effect until August 15, 1971, is known as the system of fixed par values. The par values, however, were fixed only until further notice, for they could be changed, with IMF approval, in the event of fundamental disequilibrium. In view of this, it is enlightening to follow Machlup (1971) in making a distinction among (1) unalterable parities, (2) jumping parities, (3) gliding parities, and (4) no parities. When this distinction is made, it becomes clear that the differences between practicable alternatives are not as great as one might think at first.

Unalterable parities are impossible in practice, and hence this system, which would in many respects be the most desirable one, is out of reach. To maintain parities unchanged it is necessary not only for domestic price movements due to inflationary pressures in the various countries to remain permanently in line, but also for internal cost and price movements to adapt themselves fully to the changes made necessary by continuing structural transformations affecting the basic competitive position. One example of such a structural transformation is the introduction of entirely new products, which is occurring at a rapid but unequal rate in different countries. It has been estimated that in ten years' time some 50 per cent of world trade will be in goods that are not yet being produced. Other examples of changes in the fundamental economic relationships are the discovery or the exhaustion of natural resources, and spontaneous shifts in international demand. When we observe the difficulties the authorities are encountering everywhere in realizing even a modicum of price stability, we must conclude that it is impossible to achieve an adequate adjustment of domestic cost levels to the constant shifts these changes bring about in comparative advantage among countries. The internal adjustment mechanism is inadequate—it has to be supplemented by the external adjustment mechanism in the form of parity changes.

Thus unalterable parities are impossible. The other extreme alternative, no parities, has little to recommend it. *Freely* fluctuating rates do not fit into the way modern economies are managed. National authorities consider it necessary to control many prices to attain their objectives, and the exchange rate, affecting as it does domestic prices, incomes, and employment, is too important a price to be left unregulated. It is, for ex-

ample, inconceivable that a government would stand idly by if unemployment were to occur in certain export industries as a result of an upward movement of the exchange rate caused by the inflow of money due to a temporarily higher domestic interest-rate level. Thus, "clean floats" (fluctuating exchange rates free from official interference or intervention) are not to be expected, nor would they be desirable.

On the other hand, the required international control over "dirty floats"—over how and to what extent the authorities influence exchange-rate movements—would be very difficult to achieve. Yet such control would be necessary, because the determination of the exchange rate in one country and the way it is being brought about (for example, through market intervention or exchange controls) conditions the relationships with its trading partners: one country's measures in this sphere directly and keenly affect the situation in the partner countries. It would therefore be necessary to agree on a set of rules and safeguards against arbitrary actions and conflicts of policy in the regulation of the floating exchange rates. If one wanted to achieve the high degree of exchange-rate flexibility envisaged here, it would be more orderly, and thus preferable, to realize this flexibility by way of gliding parities rather than floating rates. In exceptional circumstances, a "temporary float" of the exchange rate might nevertheless be necessary to deal with large-scale short-term capital movements.

If we now compare large, infrequent parity changes with gliding parities, we must note that the experience of the past few years with large, infrequent parity changes has not been very favorable. Some disadvantages of the system may be summed up as follows. Big parity changes take place in an atmosphere of crisis and trauma. Consequently, they are detrimental to the political prestige of the government in office. Prior to the event and if a revaluation is expected, the authorities lose control of the domestic money supply to a significant degree as a result of the inflow of money from abroad. In the opposite case of an overvalued currency, there is a tendency toward unemployment. If either a revaluation or a devaluation has become necessary but is still being deferred, international trade and payments must be subjected to all kinds of restrictive measures. Since the free and undisturbed flow of international trade and payments is the end to be served by the parity system, serious confusion thus develops between ends and means. When the parity change is finally made, it is of such size that the import-competing and export industries are exposed to a grave and sudden shock. Last but not least, postponement of the decision offers speculators the opportunity to make substantial profits at the expense of the central bank, and therefore ultimately of the public purse.

The argument that maintenance of existing par values tends to promote economic discipline has only limited validity. First of all, the postponement of parity changes in recent years has not prevented considerable and widespread inflation. Indeed, discipline is encouraged by fixed rates only in the event of balance-of-payments deficits. Surpluses have the opposite effect, since in that case a country is faced with the phenomenon of imported inflation, which is brought about by the *maintenance* of the existing exchange rate. More generally, the fixed exchange rate promotes discipline only if the international climate is one of price stability. This has not been the case for many years now. Thus, it is precisely the German authorities who, to defend domestic price stability, have pressed for greater flexibility in the exchange-rate system.

Given these disadvantages of infrequent and large parity changes, the Executive Directors of the IMF (1970, p. 72) called attention to the possibility of smaller, and hence more frequent, parity changes. In point of fact, a development in that direction has manifested itself in recent years. In view of the experience with exchange-rate changes since 1967, it is not likely that national monetary authorities will once again, as in prior years, start a grim fight to maintain unrealistic parities. That was what Prime Minister Wilson did in the United Kingdom upon assuming power in 1964. But President Pompidou of France drew the lesson from Wilson's bad experience with this policy and started his administration in 1969 by carrying out a necessary parity change. And Chancellor Barber of the United Kingdom concluded in his budget speech of March 21, 1972: "Members in this House will agree that the lesson of the international balance of payments upsets of the last few years is that it is neither necessary nor desirable to distort domestic economies to an unacceptable extent in order to maintain unrealistic exchange rates. . . ."

Nevertheless, it probably will not suffice to create the *possibility* for the authorities to take parity changes more lightly than they have done in the past and, consequently, to make such changes more frequently. It is necessary, in addition, that the international community find ways of exerting *pressure*, backed by certain rules of conduct, to induce national authorities to change the par value of their currency when it has become necessary. If not, there is the risk that, arguing that the disequilibrium experienced is only temporary and that in the coming months things will go much better than in the preceding ones, countries will stick to the existing exchange rate until a substantial change in par value has once again become necessary.

The question of how this pressure is to be organized is a difficult political problem that will require a great deal of further international delib-

eration. It is possible to prompt a deficit country to adjust its exchange rate by denying it further access to the Fund's resources and other lines of credit. In the past, however, exactly the opposite policy was often pursued in important cases. In the years from 1964 to 1967, when the pound showed clear signs of overvaluation, Great Britain was urged—particularly by the U.S. authorities—to maintain the parity of the pound by all means, and was provided with liberal international financial assistance to pursue that policy. In the case of deficits, much would therefore be gained by a changed international attitude in such situations.

In the case of surpluses, the situation is somewhat more complicated. The present Fund Articles already provide—in Article VII, Section 1, and Article XII, Section 8—the possibility, never used thus far, for the Fund to communicate its views to a member country regarding the monetary or economic developments there if the condition tends to produce a serious disequilibrium in international payments. The Fund may even decide, by a two-thirds majority, to publish such a report. A possible additional means of exerting pressure, meant to be costly rather than punitive in character, would be to reduce interest payments on the SDR holdings of obstinate surplus countries or to reduce the size of their SDR allocations.

One of the difficulties involved in the use of such pressure is, of course, that it encourages speculative capital movements. Therefore, the exchange-rate system can be expected to function well only if the authorities are willing to consider the rate of exchange as a normal instrument of economic policy and to adjust the parity in small steps (of not more than, say, 5 per cent), without drama and without much of a political stir, in cases when there appear to be grounds for doing so. If adjustments are delayed until there is complete certainty, speculators will once again have the opportunity for riskless speculation, opening the way for new monetary crises. The attitude toward parity changes would thus have to come to resemble that toward changes in the discount rate, which the authorities carry out in a matter-of-fact way, and in small, frequent steps.

Improvement of the external adjustment process through more frequent, smaller parity changes would by no means imply a weakening of the internal adjustment process through budgetary, monetary, and wage and price policies. On the contrary, the internal adjustment process would have priority if internal and external equilibrium made similar demands upon internal policy. If, however, the attainment of external equilibrium by way of the internal adjustment process would thwart the attainment of a country's domestic policy objectives, then the exchange rate should be adjusted without delay and without much fuss. In such cases, a different policy is often impossible to carry out (for example, the

enforcement of a reduction in costs) or without economic justification, if not downright harmful (unemployment in case of a deficit, price inflation in case of a surplus).

The Width of the Band

By analogy with the money illusion, one might introduce the concept of the "stability illusion," which manifests itself in a tendency on the part of the public to behave as if exchange rates will remain fixed even though it is known that they may be adjusted in the event of a fundamental disequilibrium. This stability illusion was operative over a period of some twenty years after World War II. It was not disturbed by the 1949 devaluations, which were regarded as a once-for-all adjustment to the new relationships brought about by that war. It was somewhat impaired, however, by the German and Dutch revaluations of 1961, and it was lost in the course of the multitude of monetary crises and parity adjustments since 1967. It would be banished completely by the system proposed here.

This means that we must reckon with speculative money movements. In this connection, the relation between the width of the band and the normal size of parity changes under the reformed system is of vital importance. The wider band increases the risk, and hence the economic cost, of acting in anticipation of a possible parity change. If, in addition to this, the profit that may be expected from correctly forecasting such a change is diminished by a firm understanding that the ordinary changes in par value will be limited in size, short-term money movements are made less attractive. This would be all the more true if changes in parity were normally kept small enough so that the prevailing market rate would be within the band around the new as well as the old par value. In those conditions, abrupt adjustments of market exchange rates might be avoided. The question of whether the margins of 2.25 per cent on either side of par agreed upon in Washington in 1971 are optimal from this point of view will have to be examined further in the course of the study of the structural reform of the international monetary system and in the light of the experience gained with the new margins.³

Greater exchange-rate flexibility does not mean that the international consequences of domestic monetary policy can be neglected, though it

³ The run on the pound sterling in June 1972 and the decision to let its rate float, which occurred as this essay went to press, underline the importance of the relationship between a "speed limit" setting a maximum for allowed changes in parity, on the one hand, and the width of the band on the other. In the United Kingdom's case, no speed limit had been established, and the band had been narrowed as a result of participation in the Common Market arrangement.

does afford national monetary policy a little more room for maneuver. However, large movements of the market exchange rate caused by divergent monetary policies are disruptive of current transactions. If, therefore, the system proposed here requires more coordination of monetary policies among countries than can actually be attained, serious consideration might be given to the introduction of a dual exchange market (already in operation in some countries) in which the market rate for capital transactions can show somewhat larger fluctuations than the market rate for current transactions.

The Dollar and the Intervention System

Under the system proposed here, greater exchange-rate flexibility must also be extended to the par value of the dollar. In this regard, the position of the dollar is a special one, for three reasons: the large volume of U.S. transactions in the world economy, the use of the dollar as an intervention vehicle, and the role of the dollar as a reserve asset.

As a result of the large volume of U.S. transactions in the world economy, a change in the U.S. balance-of-payments position will be felt throughout the world. One cannot conclude from this, however, that the rest of the world will always follow a U.S. devaluation. To be sure, if the U.S. authorities make it known—as they did last fall—that they want to bring about an improvement in their current transactions of not less than \$13 billion, they can count on strong resistance against such a sweeping change in international trade patterns. But if the U.S. authorities were to devalue the dollar by 2 or 3 per cent, this would cause much comment, but it would not necessarily be followed widely.

But under the present intervention system, the U.S. authorities cannot change the exchange rate of the dollar by their own action. The dollar is the intervention currency; the result is that the monetary authorities of the other countries determine the rate of exchange of the dollar on their own currency markets by buying and selling their currency against dollars. Since among n currencies there are only $n-1$ independent exchange-rate relationships as between the own currency and the $n-1$ other currencies, the U.S. authorities are passive observers insofar as the formation of the market rate of exchange of the dollar is concerned. They do not have an operational way of changing the exchange rate of the dollar vis-à-vis other currencies but are dependent for such a change on the decisions of other monetary authorities. The French decision to maintain the rate between the dollar and the franc at its existing level for commercial transactions during the period August–December 1971 clearly illustrates the point.

In contrast, the U.S. authorities determine the gold price. But the gold price is not an exchange rate. Moreover, as far as the United States is concerned, the gold price is largely irrelevant as long as the U.S. decision to suspend the convertibility of the dollar stands and the U.S. authorities do not deal in gold for monetary purposes. Thus, under present circumstances, the U.S. authorities determine the price at which other monetary authorities will buy and sell gold from one another, and these other authorities determine the exchange rate of the dollar!

It will have become clear from the foregoing that the intervention system is not a mere technical problem but has a profound influence on international monetary relationships. The use of the dollar as an intervention vehicle deprives the U.S. authorities of the ordinary means of changing the par value of the dollar and it places the dollar at the center of the system. The suspension of the convertibility of the dollar has emphasized the latter point at a moment when there is general agreement that the role of the dollar in the international monetary system should be reduced.

In addition, there is a close connection between the role of intervention vehicle and that of reserve asset. Experience has shown that the authorities generally make haste slowly when it comes to converting currencies obtained in exchange-market operations into primary reserve assets. As a result, substantial reserves are accumulated in the form of balances in the intervention currency. A drastic reduction in the role of the dollar as a reserve asset and its replacement by SDRs, as advocated above, is therefore hardly compatible with the maintenance of the role of the dollar as the main intervention vehicle.

In view of the foregoing, an overhaul of the intervention system will have to be part of the agenda for monetary reform. The simplest change would consist in an arrangement to the effect that each monetary authority would henceforth support the par value of its currency by buying and selling it on its exchange market against SDRs. Under such an arrangement, the U.S. authorities, too, would be able, and indeed obliged, to buy and sell dollars against SDRs, since the dollar rate of exchange would no longer be maintained by the other authorities. Such a system would make it necessary to allow private financial institutions to hold SDR balances, since they are the institutions with whom the monetary authorities deal in their intervention on the exchange market. But it would not be necessary to make the SDR an attractive asset for private institutions, and the autonomy of national monetary authorities might indeed be served if one were to limit such private holdings by paying interest only on SDR balances in official hands. The profit to be made by exchange arbitrage would be sufficient to induce private institutions to

make use of the SDR if that were the only intervention vehicle the monetary authorities would employ. To put the matter in different terms, one might say that the gold points of the gold standard would be replaced by "SDR points" at which the authorities would buy or sell their own currency against SDRs, and the system would function in an analogous manner. However, it would not be necessary to limit official intervention to the outer intervention points and forgo intervention within the band.

Such a system would fit in well with the role of principal reserve asset envisaged for the SDR in the scheme outlined above. It would, however, mean a clear break with past practices. A less drastic reform might perhaps consist in an arrangement under which all monetary authorities, including those of the United States, would intervene on their own exchange market in those currencies whose rates were reaching the upper or lower intervention points on that market. This could apply in practice only to the rather limited number of currencies that are actively traded on international exchange markets. The balances acquired as a result of such intervention would have to be settled periodically, for example, on a monthly basis. The Fund would be eminently suited for the role of agent of such an "International Payments Union." However, such a system would require intensive consultation for interventions to smooth out exchange-rate fluctuations between the margins, that is, for intervention before the outer limits are reached.

Interconnection

The various aspects of monetary reform discussed above are closely interconnected. One essential element in the reform of the system is the restoration of some form of convertibility of the dollar. In the plan outlined above, convertibility would be restored in the form of the financing of surpluses and deficits with reserve assets by all countries, including the United States. Such "asset financing" could in theory also be attained by agreements on the settlement of future U.S. deficits and surpluses, without carrying out an elaborate consolidation scheme at the same time. However, such a system of settlement agreements would lack credibility and hence would not be very reliable. For, as long as the monetary authorities continued to hold dollar balances in their reserves to an amount of almost \$50 billion, rules prescribing rigorous conversion of any amount over and above that limit would appear unrealistic and hence would not seem likely to be fully observed for long, especially if new situations of stress and tension in the international payments system were to arise. Consolidation of dollar balances and their replacement by SDRs is therefore a prerequisite for the restoration on a firm basis of convertibility in the form of asset financing.

A second essential element in the reform is the creation of a way to change the par value of the dollar without an international monetary crisis. If this is not done, convertibility even in the form of asset financing of deficits by the United States will be impossible, because the United States will not have an acceptable way of getting out of a situation of fundamental disequilibrium and will therefore insist on retaining the privilege of financing deficits by the issue of new dollar balances. However, more frequent adjustments of the par value of the dollar likewise make a consolidation arrangement for the existing dollar balances indispensable, in order to avoid the operation of Gresham's Law as the result of prospective recurrent exchange losses or gains on dollar balances held as reserve assets.

Both asset financing and the possibility of changing the exchange rate of the dollar would in turn make a change in the intervention system highly desirable, if not indispensable. Asset financing would directly result from intervention with primary reserves; the SDR-intervention system outlined above would guarantee this. A change in the intervention system is also required to enable the United States to effect a change in the exchange rate of the dollar in a direct, operational way, and to put an end to the present dependence of the U.S. authorities on the decisions of *other* monetary authorities with regard to the exchange rate of the dollar.

We find, then, that convertibility and the possibility of more frequent changes in the par value of the dollar are closely related and that they are interconnected with consolidation, asset financing, and changing the intervention system. Such reforms would in turn have consequences with respect to the interest rate to be paid on SDRs, a number of rules pertaining to the present SDRs, and the question of whether the SDR or gold should be the numeraire of the system.

The Need for Drastic Reform

For these reasons, we cannot confine ourselves in the situation that has now arisen to patching up the system here and there. On the contrary, a complex package of interrelated reform measures is called for. Within the framework of these measures, both the role of the dollar, which was at the center of the old system, and the exchange-rate system, and perhaps also the role of gold, will have to be redefined.

Carrying out such far-reaching reforms by way of international deliberation and negotiation will prove far from simple. Yet far-reaching reforms are inescapable. The monetary structure that has come into being since December 18, 1971, is unstable; it exists only by virtue of the fact

that its reform is being widely discussed. If no agreement can be reached on constructive reforms, the process of spontaneous evolution sketched at the beginning of this essay will resume its course.

What would this spontaneous evolution look like? As the saying goes, it is always difficult to predict, especially the future. It is likely, however, that, if it proved impossible for the SDR to assume at least part of the central role played by the dollar under the old system, that role would be spread over a great number of currencies. In concrete terms, this would mean that the inconvertibility of the dollar would lead to renewed exchange-rate fluctuations vis-à-vis the dollar. Some groups of countries would then try to stabilize the exchange-rate relationships among themselves. Thus, the world economy would disintegrate into a number of regional blocs. This process would carry with it the obvious danger that the formation of economic blocs might lead to economic nationalism, to a tendency to inward- rather than outward-looking trade and capital-control arrangements, and in the longer run to an undesirable formation of political blocs. There would then also be reason to fear a dismantling of the International Monetary Fund and a serious weakening of the institutional framework for international monetary and economic consultation and collaboration.

Moreover, it is far from certain that the regional blocs would not in turn be subject to disintegration. Thus far, exchange-rate fluctuations vis-à-vis the dollar have led to fluctuating rates among the European currencies themselves. In the process, it has proved necessary to change the exchange rate between the Deutsche mark and the French franc by more than 25 per cent in the past three years—a development that does not offer much prospect for rigidly fixing exchange rates among the European countries. The situation is further complicated by the fact that, via the exchange markets, third countries would convert part of their dollar holdings into balances in the currencies of one or more of the countries of the European Economic Community. Since they would show a preference for the currencies of some Common Market countries over others, the dislocation resulting from this process should not be underestimated. The process of building up reserve balances in some European currencies is already underway. The reserves accumulated by foreign monetary authorities in German marks in the past few years amount to something like half the sterling balances in official hands and far exceed the reserves held in French francs. As long as the countries of the European Economic Community have not yet succeeded in establishing an economic and monetary union, a situation in which the position of the dollar is left unsettled and in which renewed exchange-rate fluctuations vis-à-vis the dollar may therefore occur holds the threat that the monetary relation-

ships among the Common Market countries themselves will once again be disrupted and the difficulties on the road to monetary union will be increased.

Moreover, if Europe were to concentrate only on its own regional problems, it would turn a blind eye to the opportunity of playing an important, constructive part in solving a pressing world problem. The realization, in the international monetary sphere, of one of Europe's aspirations in the international political sphere is within reach. The monetary strength of Europe, its strong representation in the institutions for international monetary cooperation, and the substantial voting strength that the European countries have acquired in the SDR system enable Europe to play an important part in solving the monetary problems facing the world at this juncture.

For the United States, bloc formation would lead to an increasing isolation in international economic consultations and to a growing discrimination against the United States in the international economic sphere. The United States would come to stand alone vis-à-vis economically powerful groups of countries and would be in a weaker position to promote its export interests and its general economic and monetary concerns. It is true that the United States has lost the position of complete supremacy in the monetary sphere that it occupied after World War II. This has apparently led to a belief by some U.S. authorities that constructive U.S. initiatives for reform of the international monetary order would be useless, and to the adoption of a narrow, defensive attitude. The opposite is called for, of course. Without constructive U.S. initiatives it will be extremely difficult, if not impossible, to bring about the necessary reforms. The economic power of the United States, by far the largest Western country, and its position in the world economy are still as impressive as ever.

It is indispensable for a proper development of the international payments system that some countries in the world attend to its progress and evolution, in addition to concerning themselves with their own interests. Since the war, the United States in particular has played this important role. It should persist, but now it needs the full support of Europe and Japan, which have gained so much economic strength. We should never lose sight of the fact that the readiness for full and close international cooperation played an essential part in ensuring the success of the system that came to an end on August 15, 1971. If this readiness still exists, and there is good reason to believe that it does, there is ample opportunity for using the available insight, the good international contacts, and the existing institutional framework to bring about monetary reforms capable of producing results for all countries concerned, including the Third

World, that will far surpass the results yielded by temporary and partial "solutions" or by a spontaneous, unregulated evolutionary process.

References

- International Monetary Fund, *The Role of Exchange Rates in the Adjustment of International Payments: A Report by the Executive Directors*, Washington, D.C., 1970.
- Machlup, Fritz, *New York Times*, Sept. 26, 1971.
- Mertens, Jacques E., *La naissance et le développement de l'étalon-or, 1696-1922* [*The Origin and Development of the Gold Standard, 1696-1922*], Louvain, Editions Warny, 1944, p. 356 and *passim*.

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